

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).

1. Name of Property

historic name Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)

other names/site number N/A

Name of Multiple Property Listing Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

street & number Roughly bounded by Bear Creek Rd. to the north, Gosney Rd. to the not for publication
east, Somerset Dr. to the south, and Ward Rd. to the west

city or town Unincorporated Deschutes County vicinity

state Oregon code OR county Deschutes code 017 zip code 97701

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance: national statewide local

Applicable National Register Criteria: A B C D

Christine Ceman 1.17.19
Signature of certifying official/Title: Interim Deputy State Historic Preservation Officer Date

Oregon State Historic Preservation Office
State or Federal agency/bureau or Tribal Government

In my opinion, the property meets does not meet the National Register criteria.

Signature of commenting official _____ Date _____

Title _____ State or Federal agency/bureau or Tribal Government _____

4. National Park Service Certification

I hereby certify that this property is:

entered in the National Register determined eligible for the National Register

determined not eligible for the National Register removed from the National Register

other (explain:) _____

[Signature] 3/18/2019
Signature of the Keeper Date of Action

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5. Classification

Ownership of Property
 (Check as many boxes as apply.)

Category of Property
 (Check only **one** box.)

Number of Resources within Property
 (Do not include previously listed resources in the count.)

- private
- public - Local
- public - State
- public - Federal

- building(s)
- district
- site
- structure
- object

| Contributing | Non-contributing | |
|--------------|------------------|--------------|
| 0 | 0 | buildings |
| 1 | 0 | site |
| 28 | 10 | structure |
| 0 | 0 | object |
| 29 | 10 | Total |

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
 (Enter categories from instructions.)

AGRICULTURE/SUBSISTENCE
Irrigation facility

Current Functions
 (Enter categories from instructions.)

AGRICULTURE/SUBSISTENCE
Irrigation facility

7. Description

Architectural Classification
 (Enter categories from instructions.)

NO STYLE

Materials
 (Enter categories from instructions.)

foundation: N/A
 walls: N/A

 roof: N/A
 other: EARTH
STONE, basalt

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Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and non-contributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity).

Summary Paragraph

The nominated property is a segment of the Central Oregon Canal (COC), located in the Upper Deschutes River Basin, near the center of Oregon, in Deschutes and Crook Counties (Figures 1 and 8). The historic district begins 7.75 miles east of the diversion point and $\frac{3}{4}$ mile east of the Bend city limits in Deschutes County. The district is 3.4 miles long, crossing rural land between the Ward Road Bridge on the western edge and the Gosney Road Bridge on the eastern edge. In the historic district, the canal ranges in width from 34' to 78', averaging around 50', and its depth varies from 1' to 9', averaging around 4' deep, depending on the amount of volcanic lava flows encountered, the terrain, and slope. The canal was built in irregular profiles, often wider and shallower than it was designed, in order to reduce expensive rock blasting and excavation.¹ The canal through the historic district carries nearly the full amount of water diverted from the Deschutes River, 530 cubic feet per second during the irrigation season, April through October.² The elevation of the canal on the western historic district boundary is 3,658 feet and water gradually drops about 15 feet per mile in the district, which is average for the entire canal. The historic district has unique rocky terrain, rolling hills and sudden drops in elevation mixed with flat stretches, over lava tubes. It runs through the southwest quarter through the northeast quarter of Township 18 South, Range 12 East, Section 1, W. M. (T18S, R12E, Section 1), from the northwest quarter to the southeast quarter of T18S, R13E, Section 6, through the southwest quarter of Section 5 and ends in the center of the north half of Section 8 (Figures 15-20). The historic district encompasses 50' on either side of the canal centerline to create a 100' corridor that includes the whole of the easement held by COID, and all the contributing resources. Most of the property owners in the district, where parcels range from 1 acre to 80 acres in size, maintain appurtenant water rights and use irrigation water (Figures 4a-4f). Much of the historic setting, including cultivated farms, a full range of irrigation system components, irrigation ponds and native vegetation, remains. The nominated canal, with its winding, character-defining, rocky, uneven canal bed and irregular slopes, cuts, and tall embankments is historic contributing. The historic design and materials, tool marks, and blasting drill holes are evident and tell the narrative of its construction through solid basalt rock flows that were blasted apart and moved with horse teams. The historic district has a high degree of all aspects of integrity. The 28 contributing structures include the historic main canal, a 215'-long concrete chute across a sink hole, 11 turnouts/headgates and associated headwalls (including Stearns Waste, a set of three headgates sharing a single headwall and counted as one resource), and 15 drops. The single contributing site is the remains of a 305'-long wooden flume (archaeological site 35DS3033, see appended site form). The 10 non-contributing elements within the nominated area include eight non-historic turnouts to ditches (outside the period of significance), a historic-period one-lane wooden bridge (outside the agricultural irrigation context), and a historic-period corrugated metal pipe that delivers water across the canal to a farm ditch (associated with the irrigation of a specific farm, and therefore outside the canal system, per the MPD) (Figure 5). This nomination conforms to the general registration requirements and the description and classification of structures in the linear water distribution system of man-made water conduit and conveyance structures, as set out in the MPD, Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978, listed in 2017.

¹ Dubuis, John, Report to Desert Land Board on Central Oregon Project, 1914, p. 5.

² Oregon Department of Water Resources, 2016 averages

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Looking south to irrigation water delivered to a hay farm in the center of Alfalfa by the Central Oregon Canal.³

LOCATION, GEOGRAPHY AND GEOLOGY OF THE CENTRAL OREGON CANAL

Location

The Central Oregon Canal (COC) is in Deschutes and Crook Counties, Oregon. The canal is in the Upper Deschutes River Basin, near the center of the state, east of the Cascade Mountain Range (Figure 1). The main canal is 47 miles long. It traverses the plateau east of the Deschutes River, south of the Crooked River, west of the Dry River, and north of the National Newberry Volcano Monument. It begins within the city of Bend at the diversion gate in the Deschutes River. The canal runs from the Deschutes River, its source of water, through the southern urban portion of Bend, population 82,000⁴, flowing east of the city limits through progressively sparsely populated rural lands toward the Badlands Wilderness Area. From there, it abruptly turns north and heads to the unincorporated communities of Alfalfa and Powell Butte (population 1,768)⁵, where orchard grass and alfalfa hay are primary crops, and then flows northwest toward the Crooked River. The canal ends at several large ponds. just south of the Crooked River Gorge.

Alfalfa and Powell Butte

Alfalfa is about 16 miles east of Bend and consists of irrigated pastures and livestock ranches, one historic convenience store and a community hall in a converted school. Alfalfa does not have a census tract and has fewer than 1,000 residents. The irrigated farms and ranches along the main COC and laterals in Alfalfa are like an oasis surrounded by thousands of acres of uncultivated dry scrub lands with sparse juniper trees and sagebrush in public ownership (Figure 22). Reynolds Pond, a public recreation pond, and Zell Pond, both in Alfalfa, are filled by water from the 'I'-Lateral of the COC.

Powell Butte is on OR 126, 8.3 miles east of Redmond, 11.2 miles west of Prineville, and 24.9 miles northeast of Bend. Powell Butte (population 1,768), has a US Post Office, two churches, a gas station/convenience store, a school with 186 students in kindergarten through eighth grade, and a new community center and fire station.⁶ Northwest of Powell Butte, the canal fills Houston Lake and Little Houston Lake near its terminus.

Most residents in Powell Butte and Alfalfa do not earn their primary income from farming and they commute to jobs in Prineville, Redmond, and Bend. Modern small-lot, rural-residential housing developments with and without irrigation rights take advantage of beautiful views of the Cascade Mountains from the western slopes of Powell Buttes. On the flatter land, many residents are hobby and commercial farmers, with horses and other

³ Patricia Kliewer photograph, May 21, 2017.

⁴ Visit Bend website, May 5, 2017.

⁵ www.bestplaces.net/zip-code/oregon/powell_butte/97753

⁶ Powell Butte Community Charter School website, May 2017.

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livestock in irrigated pastures.⁷ Substantial irrigated hay and cattle ranches of more than 40 acres in size are interspersed with uncultivated public land.

The Cascade Mountain Range and Precipitation

The Cascade Range blocks rainclouds coming from the west. Therefore, the high desert area receives a relatively sparse average of ten inches of precipitation annually, including 15 inches of snow.⁸ The western side of the mountain range is lush with diverse vegetation and populous timber lands. On the eastern side, the rich flora quickly changes to an arid plateau.⁹ The country east of the Cascades presents a series of broad plains and mesas covered with lava of various ages, from some that outpoured as recently as 7,000 year ago to the ancient flows whose surface has largely changed into soil.¹⁰

Geography Facilitates the Gravity-Flow Irrigation System

The 180,000 acres east of the Deschutes River in Deschutes County is ideally suited for a gravity-flow irrigation system because of its relatively flat terrain with a gradual downward slope to the north and east, a 30-foot drop per mile.¹¹ The Deschutes River water conveyed by the COC flows north and then east across the high desert plateau toward the east-to-west flowing Crooked River next to Powell Buttes.

The Deschutes River¹² drains the eastern slope of the Cascades from a point a few miles north of Crater Lake National Park, northward to the Columbia River. The Deschutes Basin is roughly 75 miles long and 30 miles wide, with an elevation that ranges from about 3,000' to 5,000'. The lands in Central Oregon slope down from the mountain range toward the south-to-north flowing Deschutes River. From the river, the land slopes to the east another 701 feet east across the high plateau to Powell Buttes. It slopes down 600 feet across the plateau from south to the north, where it meets the Crooked River. The Crooked River flows west from the rural Paulina area through Prineville and Smith Rock State Park to the confluence with Deschutes River. The Deschutes River flows north to join the east-to-west flowing Columbia River. In Bend, the mountainous ponderosa pine forest transitions into high desert, characterized by arid land, volcanic soils, sparse grasses, evergreen juniper trees, sagebrush, rabbitbrush, bitterbrush, bunch grass, and bear grass.

Climate in Bend and Crops Grown with Irrigation Water

The Deschutes Soil and Water Conservation District writes, "Deschutes County has a wide range of growing seasons because of elevation differences. Frost can happen at any time during the short growing season. Climate definitely limits crop production." Bend receives between 8" and 14" of precipitation annually on average.¹³ "Hay and pasture have always been the main irrigated crops and are the foundation of the livestock industry, with 35,000 to 40,000 acres of hay and grass grown annually for at least the last 30 years."¹⁴ Deschutes County, being in zones 4-5, all plants that are rated zones 6-10 must be grown in heated greenhouses.¹⁵ Hay is essential winter feed for livestock.

⁷ Oregon State Extension Service, Deschutes County Office.

⁸ Weather.com

⁹ Natural Resources Conservation Service, *Soil Survey: Deschutes Area*, (Series 1945, No. 2, U.S. Department of Agriculture, Soil Conservation Service in Cooperation with Oregon Agricultural Experiment Station, Washington: Government Printing Office, December 1958), 63. This mix and its density, each species' size and the overall composition of vegetation vary by location.

¹⁰ Newell, Frederick Haynes, *Irrigation in the United States*, (New York: Thomas Y. Crowell, 1902), 350-51. Newell became the first Director in 1907 when the Reclamation Service broke away from the U.S. Geological Survey (USGS) to become a separate agency under the Department of the Interior. Among many activities and accomplishments, he was a hydraulic engineer and an expert on irrigation for the Eleventh and Twelfth United States Census.

¹¹ COID Website, May 2017

¹⁵ McArthur, Lewis L., *Oregon Geographic Names*, (Portland: Western Imprints, Fifth Edition, Revised & Enlarged, 1982), 218-19. Lewis and Clark discovered the Deschutes River on October 22, 1805; however, on the return journey the explorers called it Clarks River, presumably for William Clark. In the fur trading period, the stream was known as *Riviere des Chutes* or *Riviere aux Chutes*, meaning River of the Falls. The trappers applied their name because the river flowed into the Columbia near the falls of that river and not because of any falls on the Deschutes itself.

¹³ Deschutes Soil and Water Conservation District, Deschutes County Rural Living Handbook, 2011, pages 3 and 4.

¹⁴ Ibid, page 5.

¹⁵ Deschutes County office of the Oregon State University Extension Service.

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The COC irrigates 25,257 acres and drops an average of 15 feet per mile, for its 47-mile length.¹⁶ It begins inside the Bend city limits along the eastern bank of the Deschutes River in south-central Bend. The 'A' Lateral branches off the main canal in Bend and carries water to water users north through the entire length of the city and northeast of the city limits. The lateral and associated ditches irrigate both urban lots in town and rural land outside of Bend. The main canal stays south of Pilot Butte and flows east of Bend to the Dry River at the western base of Bear Creek Butte and Powell Buttes. Powell Buttes, elevation of about 5100', frames the east side of the farming area. The buttes between Redmond and Prineville are named "Powell Buttes" while the unincorporated community is called "Powell Butte". The rural agricultural acreage served by the canal and its laterals are clustered near the canal in three relatively distinct areas: between Bend and Alfalfa, between Alfalfa and the community of Powell Butte and in the irrigated gentle hills northwest of Powell Butte (Figures 1, 22, and 23).

Geology

The canal is made of native rock and soil. The land crossed by the canal near Bend is very rocky and presents the challenges of many volcanic lava tubes and caverns that must be bridged. Land north of US Highway 20 and east of Gosney Road has progressively less rock. The Deschutes Soil and Water Conservation District states in *Deschutes County Rural Living Handbook, a Resource for Country Living and Land Stewardship*, "In Deschutes County, geology includes basalt bedrock, pumice rock, volcanic ash, glacial deposits, and materials deposited by water. Most soils occur over basalt bedrock with a mantle of sandy pumice volcanic ash. Due to the volcanic ash, the soils tend to be fragile and are susceptible to wind and water erosion when not adequately protected. Soils are composed of clay, silt, and sand."¹⁷

The Oregon State Engineer, John Dubuis, described the character of the soil in the 1914 report to the Oregon Desert Land Board as "disintegrated volcanic rock intermixed with volcanic ash, sandy, and silty loam."¹⁸ "Dykes of cooled lava, caves, and pumiceous deposits occur here and there over the project."¹⁹

In *Geology of Oregon*, Elizabeth and William Orr and Ewart Baldwin explain: "The Deschutes-Columbia River Plateau is predominantly a volcanic province...Geologic events in the Deschutes-Columbia province took place on a grand scale. Immense outpourings of lavas during the Miocene created one of the largest flood basalt provinces in the world, second only to the Deccan Plateau in India."²⁰ Volcanoes erupted particularly near Bend and southward. From volcanoes near Bend and perhaps from local vents elsewhere, very liquid olivine-basalt lava flowed great distances northward and in places spilled into the valleys of the Crooked and Deschutes River. This basalt covered most of the area in Deschutes County east of the Deschutes River.²¹

The Deschutes River is the Source of Water for Irrigation.

The water for the COC is diverted from the Deschutes River at elevation 3,758' near the southern city limits of Bend in Township 18 South, Range 11 East, Section 13 W.M. (T18S, R11E, Section 13). The diversion point was about four miles south of the historic downtown and five miles west of the historic district when it was constructed. The 252-mile long Deschutes River is a major tributary of the Columbia River. The Deschutes River flows north from Little Lava Lake in southern Deschutes County, about 23 miles southwest of Bend, to the Columbia River, near Biggs Junction. Over-allocation of the river water has been a constant problem for

¹⁶ COID Website and interview with COID staff, 2001 and 2017.

¹⁷ Deschutes Soil and Water Conservation District, *Deschutes County Rural Living Handbook*, 2011, page 16.

¹⁸ John Dubuis, Report to Desert Land Board, 1914, p 9.

¹⁹ *ibid*

²⁰ Orr, Elizabeth L. and William N., and Ewart M. Baldwin, *Geology of Oregon*, (Dubuque: Kendall/Hunt, Fourth Edition, 1992), 121; William N. Orr, Professor Emeritus of Geology at University of Oregon, director of the Condon Collection, and Elizabeth L. Orr, collections manager of the Condon Collection at the Museum of Natural and Cultural History at the University of Oregon. Both received PhDs in Geology. In Memorial to Ewart M. Baldwin, University of Oregon, Department of Geology. Ewart M. Baldwin received a PhD in Geology and was Professor of the Department of Geological Sciences at the University of Oregon from 1947-1980.

²¹ Natural Resources Conservation Service, *Soil Survey: Deschutes Area*, (Series 1945, No. 2, U.S. Department of Agriculture, Soil Conservation Service in Cooperation with Oregon Agricultural Experiment Station, Washington: Government Printing Office, December 1958), 72-73.

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the past 115 years, requiring several rounds of litigation followed by cooperation among the irrigation districts and water right holders, and construction of federal water storage reservoirs to augment seasonal flows.

Important sources of supplemental water for irrigation are the Crane Prairie Reservoir (42 miles southwest of Bend) and the Wickiup Reservoir, (60 miles southwest of Bend), both located west of La Pine in southern Deschutes County. The source of the Deschutes River is 8.4 miles west of Crane Prairie Reservoir. The Deschutes River flows in and out of each reservoir. When full, Crane Prairie Reservoir, built in 1922 and rebuilt by the Bureau of Reclamation in 1940, covers an area of seven square miles.²² Construction began on the Wickiup Reservoir in 1938 as a Civilian Conservation Corp Project and it was completed in 1949. It is the second largest reservoir in Oregon and it holds 53,300 acre-feet of water and covers 4,940 acres.²³ Water from the reservoirs is stored during the fall and winter and is released to augment flows in the Deschutes River and to meet water allocations during irrigation season, including water for the COC.



Diversion gate and fish screen at the eastern bank of the Deschutes River and the above-ground pipe conveying water for the COC, at the southern edge of Bend.²⁴

DESCRIPTION OF THE CENTRAL OREGON CANAL

The diversion gate at the Deschutes River is southern Bend is in its historic location but was rebuilt in 2001 to include a fish screen to prevent fish from entering the canal. Nearby, some of the diverted water flows through the Siphon Power Plant, built in 1989, that produces 5.5 megawatts of power that COID sells to Pacific Power. The irrigation water is conveyed by a non-historic pipe that replaced the original 1903 wooden flume for the first 6261 feet of the irrigation system. It then continues into an 11' diameter, 3000' long pipe that was installed in March 2018. The canal winds with the relatively flat rocky terrain in a northeasterly direction for about seven miles inside Bend City limits, going through densely-developed residential, commercial, and industrial areas where it provides water to urban users with water rights.

At the eastern Bend city limits, the canal flows through small-acreage hobby farms with pastures for the first two miles, then through hills and larger parcels that are partially cultivated or are scrub land. East of Gosney Road, many parcels of rocky scrub land that are each over 80 acres in size and managed by the BLM are interspersed with privately-owned parcels that are generally between 10 and 40 acres, with portions under cultivation and irrigation. This pattern of dry native vegetation on rocky, unirrigated federal land, interspersed with irrigated private land, continues to the end of the canal system.

²² Lewis L. McArthur, Oregon Geographic Names, Sixth Edition, 1992, pages 216, 217, 905.

²³ Robert Autobee, Deschutes Project, Bureau of Reclamation, 1996, pages 1-12

²⁴ Google Earth aerial photo May 2017.

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The COC turns north 16 miles east of Bend where it encounters the sandy prehistoric riverbed and volcanic rock formations of the Oregon Badlands Wilderness Area, owned by the federal government and managed by the Bureau of Land Management (BLM). From there, it follows the Dry River Canyon and enters the Alfalfa area, which appears to be an irrigated oasis in the desert. It continues north into Crook County to the community of Powell Butte. There, it winds through hilly land to its terminus northwest of Houston Lake and Little Houston Lake. The main canal ends at a large pond at T14S, R14 E, Section 26, on SW Lark Meadow Lane near Lark Gardens Cattle Ranch,



View from the center of the Alfalfa Community looking north from Alfalfa Market Road toward Powell Buttes. ²⁵

Powell Butte, just south of the Crooked River and Dry River, elevation 3057' (Figures 1, 7 and 8). The elevation at the diversion point is 3758' and is 3057' on Lark Meadow Lane. The canal drops about 701' in elevation to its end. It drops 736' to its low point near the ditch serving Houston Lake at elevation 3022', allowing the water to flow entirely by gravity.^{26 27}

Unlike the COC in the historic district, the COC west of Ward Road has some piping, intermittent low berms; a flatter, shallower bed; and it has a more consistent profile as it flows through flatter terrain. The COC east of the district is more consistent, flatter, and progressively smaller and has sparse rock once it arrives at Alfalfa. Berms and rip rap are rare east of Dodds Road.

**DESCRIPTION OF THE CENTRAL OREGON CANAL
HISTORIC DISTRICT (WARD ROAD – GOSNEY ROAD SEGMENT)**

Historic District Boundary and Dimensions

The Central Oregon Canal Historic District (Ward Road – Gosney Road Segment) (COCHD) is about 7.75 miles northeast of the canal's diversion point at the Deschutes River. It is located 0.75 mile from the eastern Bend City limit line in Deschutes County. The nominated area in the historic district includes the length of the Central Oregon Canal within the west half and the northeast quarter of Township 18 South, Range 12 East, Section 1, W.M.; the northwest quarter and east half of Section 6 and the southwest quarter of Section 5 and the northwest quarter of Section 8 of Township 18 South, Range 13 East, W.M. (Figures 2, 3, 11, 12 and 14a-c). The COC Historic District begins at the Ward Road Bridge. Its western boundary is the eastern edge of the Deschutes County right-of-way for Ward Road, as it crosses the canal. Ward Road runs north-south along the western section line of T18S, R12W Section 1. The historic district ends at the Gosney Road Bridge. Its eastern boundary is the western edge of the Deschutes County right-of-way for Gosney Road, as it crosses the canal. Gosney Road generally follows the north-south midsection line through Sections 5 and 8 of T18S, R13E.

²⁵ Photo by Patricia Kliewer, May 22, 2017.

²⁶ Energy Trust of Oregon, Inc. Open Solicitation, Juniper Ridge 3/27 MW Hydropower, January 23, 2008, page 1.

²⁷ Google Earth 2014 web site.

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The northern and southern boundaries of the historic district are lines drawn 50' on either side of the centerline of the COC, establishing a 100'-wide corridor that includes the extent of the original and current canal easement held by COID. The 100' total width of this historic district includes the main canal and its embankment and all associated irrigation features that are necessary to deliver the irrigation water to the patrons, direct it out of the canal to waste land in an emergency, and to store it in adjacent irrigation ponds. The nominated segment of the canal is approximately 18,013' (3.4-miles) long, as measured down the centerline of the canal. The nominated district includes just over 41 acres.

The nominated segment meets the MPD requirements for the methodology that determined the boundaries of the historic district. The 3.4 mile length is of sufficient length to encompass a complex segment of irrigation system components. The MPD describes the typical system. It says:

"In their entirety, Oregon's irrigation projects consist of complex systems that can span up to several hundred miles and often comprise thousands of individual resources...They are typically far flung, spanning multiple political jurisdictions (i.e., crossing state, county, and/or municipal boundaries) and management jurisdictions (...), and their size and extent make it difficult to view a system in its entirety on the ground. It is also common for different parts of an irrigation system to possess highly varying levels of integrity. A nominated property, therefore, is not required and should not be expected to contain all of the property types and subtypes summarized in this section or the entirety of an irrigation system and would only need to contain a concentration of resources sufficient to convey its historical significance."²⁸

The components (resources) of the irrigation system in the historic district include the 3.4-mile long main canal with its high level of all aspects of integrity, a 215'-long concrete tapered chute and stilling pond, remains of a 305'-long wooden flume (archaeological site form, 35DS3033, Figure 32), turnouts (headgates) and associated headwalls, pipes and weirs to three laterals and 16 turnouts to irrigation ditches, two metal catwalks across the canal with associated metal checks, other crude rock or asphaltic concrete checks that are not visible when the water is flowing, a corrugated metal pipe that delivers water across the canal to a ditch, and a set of three emergency water discharge gates and associated concrete headwalls and corrugated metal pipes (Figure 5). The nominated segment contains a concentration of resources in a highly functioning irrigation system segment that is sufficient to convey its historical function and significance. The canal is delivering water to users surrounding the segment and for 36 miles downstream and to 25,257 acres through its delivery system. One can understand the purpose, function and history of the irrigation water delivery system by observing the resources in the nominated segment. The group of resources together convey historical significance as a coordinated irrigation system. In the context of this nomination, the MPD uses the term "property" to mean "nominated segment". The MPD states:

"A property nominated to the National Register under this Multiple Property Documentation may comprise all or part of the conveyance system of an irrigation project. In most cases, a nominated property is likely to be a historic district consisting of a dam, canal, or lateral/ditch as its "principal resource" with other resources from the three property types categories as contributing elements. The extent of a property and the quantity of resources that it contains will depend on the property's integrity and its ability to convey its historical significance."²⁹

The MPD describes setting the boundaries of an historic district:

"Because of the systemic nature of irrigation facilities, it is anticipated that most properties associated with irrigation projects will be nominated for National Register listing as a historic district. To qualify as a historic district, such a property (whether an entire irrigation project or a

²⁸Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-33

²⁹Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-34

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*representative portion) must contain a significant concentration or linkage of resources united historically by plan, function, or physical development. This collection of resources should exist as a significant, distinguishable entity, although its component parts need not possess individual importance. These elements would be considered the historic district's contributing resources. As contributing resources, they must have been constructed together or within a defined period of significance and must relate to one or more of the historic contexts associated with the irrigation project. As many property subtypes identified in this section are generally perceived as "secondary" contributing elements of a larger system and not as a principal resource, the classification of a property associated with an irrigation project as a historic district provides an appropriate level of recognition for many such resource types.*³⁰

*"Contributing resources should always retain association with a principal resource (such as a main canal or lateral) that represents the historical significance of the property. The inclusion of a principal resource is required if the historic district consists of only part of an irrigation project. The type, size, or length of the principal resource and the number of contributing resources (i.e., both principal and secondary) included in such a nomination may vary, as long as the resources together sufficiently represent the historical significance for which the historic district is nominated. For example, a short length of canal or lateral could serve as a nominated historic district's principal resource and would be considered of sufficient length, if the historic district also included other principal or secondary resources, such as the segments of one or more laterals, headgates, check structures, or other appurtenant features, that together adequately represented an irrigation project's function and historical significance. The inclusion of a longer canal or lateral segment would be necessary, if few contributing resources were present in the nominated historic district, and more were needed to represent these qualities."*³¹

The nominated segment meets these guidelines and is of sufficient length to include six of the eight types of water conduit/conveyance structures listed in the MPD: the primary or principal resource – the main canal, and secondary resources including laterals/ditches, drops, pipes/pipelines, flumes (visible, represented archaeologically), chutes/raceways, and drains. It does not include two types of structures: a tunnel or a siphon. It does include many flow control devices: headgate or turnouts, check structures, a wasteway, weirs, and weir boxes.³²

Roads and Bridges around the Historic District

The historic district is about a third of a mile south of US Highway 20. Ward Road is a two-lane paved county road on the west side of the historic district. The Ward Road right-of-way and the non-historic bridge over the canal at Ward Road are not included in the historic district. Gosney Road is a two-lane paved county road on the east side of the historic district. The Gosney Road right-of-way and the non-historic bridge over the canal at Gosney Road are not included in the historic district. Both the Gosney Road Bridge and the Ward Road Bridge over the COC were built in 1968. Bear Creek Road is about a tenth of a mile north of the district and is a two-lane paved road that was the original primary east-west road from Bend to Powell Butte and Prineville in the historic period. Teal Road, which extends south toward the historic district, but ends in a turnaround before entering the nominated area, is a one-lane dirt road.

Elevation and Water Flow in the Historic District

Because the water in the canal flows by gravity, drops in elevation are important to move the water and were a factor in determining the necessary placement and size of the canal. Slow-moving water is caused by flatter terrain. The canal is generally narrower in fast-moving places, due to larger drops in elevation. The elevation at the west end of the district is 3,658 feet above sea level. The elevation at the east end of the district is 3,608 feet.³³ The water in the canal drops 50 feet as it flows through the historic district, matching the average 15-foot

³⁰Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-35

³¹Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-35

³²Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-32

³³Google Earth, 2017.

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drop in elevation per mile for the entire canal.³⁴ The canal in the district carries nearly the full amount of water, 530 cubic feet per second, diverted from the Deschutes River, with only the 'A' Lateral being upstream. The 'A' Lateral diverts a small volume of water away from the main canal before it reaches the historic district. The canal in the historic district has no straight-a-ways and is characterized by a significantly winding canal bed that flows just 2.5 miles east, as the crow flies, during its 3.4-mile length. It curves north toward Bear Creek Road for nearly a half mile and then curves southeast for a mile toward Gosney Road.

Rocky Canal Bed and Tall Embankments in the Historic District

A distinctive feature of this segment of the COC is that it winds through gently rolling hills that are along the southern edge of the plateau that is irrigated by the COC. Because it is uphill, the land immediately next to the canal on its southern side is irrigated by water from a canal further south, the Arnold Canal, a component of the Arnold Irrigation District. The water passing into the nominated segment of the COC irrigates land north and east of the segment. The COC in the historic district is the typical trapezoidal shape found in the first half of the canal, but its interior side slopes display an unusually variable shape, undulating and varying in width from steep, near-vertical edges to gradually sloped 15' wide sides, at the toes, the point where the side slope meets the canal bed.

The rocks in the COC vary greatly in size from football-sized field stone, to 2' to 3' wide riprap, to immovable boulders, to basaltic lava flows that cover the entire base of the canal and extend beyond the edges of it. The surveyors staked the canal route on the edge of a hillside, keeping it as high as they could, resulting in the need for unusually tall berms on the downhill slope that are the tallest on the entire canal. Flumes bridged a 305'-long low point and a 215'-long lava tube. Today, the historic challenges and methodology of construction, which will be further described in Section 8 of this nomination, are easily observed in the character and appearance of the canal. Rock fractured by picks and blasting, and high places where soil was scooped out by Fresno scrapers as it was needed to form embankments are visible in the district. Character-defining features include the uneven bed and highly irregular width, depth, slopes, and cuts, and intermittent embankments. Intermittent, extensive, impervious lava flows form the bed in about a fourth of the length of the district. Much of the bed holds pools of standing water when the canal is not in active flow, providing habitat for water plants, young fish and crawfish.

The widths between the sides of the canal at daylight, where the top of the water meets the sides, is typically 45-60 feet, but varies from 33.8 to 78.1 feet. The bed is also undulating and irregular in depth, varying from 1.3' to over 9' at the deepest points. The bed is far from flat. Typically, low points are in depressions where rock was blasted out, while high points are at the tops of lava flows or large rocks left in place during construction.



Looking southeast across lava flows and loose rock that was moved by the flow of water in the canal bed.³⁵

³⁴ Elevations taken from Google Earth and Figure 6.

³⁵ Photo by Patricia Kliewer taken on October 31, 2017.

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Riprap was placed haphazardly on the flatter inside slopes of the canal bed, typically on the outside turns, to prevent erosion. Fifty rocks with 2.25" diameter drill holes that were used to place blasting power to blast the solid rock were noted in the canal during the survey of the historic district. Excess 3-4' wide rocks that were not needed to construct the embankment are piled and scattered in the fields, near the uphill side of the COC. Smaller blasted rock was left scattered across the canal bed where some has moved into piles due to the force of the water over time. The riprap varies in size from 6" to 36" in width, and much of it appears to have fractured, unnatural faces showing the extent of the blasting and picks breaking it up in 1905 and again when it was widened in 1907 and 1914.

The COC in the historic district is on the northern edge of rolling hills. Bear Creek Road, visible below the district, is on flat terrain. The elevation rises 100' in a half mile to the south, at the intersection of Ward and Stevens Roads. It rises another 100' to Rickard Road. The elevation rises 4,000 feet in the next 23 miles south of the historic district to Paulina Peak in the Newberry Crater. Being at the very northern edge of the hills, the bench under the COC in the historic district slopes down from south to north and from west to east

Most of the canal in the historic district follows a diagonal slope, therefore, the canal was cut into the land on the high side and intermittent embankment were created on the low side, up to 12' tall by 27' wide, to hold the water in the canal. They form most of the northern side of the canal and form both sides of the canal near the eastern end of the district.

The historic district begins in flatter terrain at Ward Road, and the berms are not necessary for the first 100'. Both sides are cut into the generally flat terrain at that point which is consistent with the canal in flatter land west of the district for several miles. But, as the canal runs east of Ward Road, the terrain drops off on the northern edge, and berms become progressively taller to form the northern side of the canal. For most of the length of the canal in the historic district, the canal bed was formed by crews cutting the south side and dragging the excavated materials to the north side to form the embankments. The north berm varies in width from 14' to 27' wide, with shorter berms being narrower and the taller berms being wider. The median berm width is 18'. In several locations in the district, the canal crosses flatter areas and is not on a diagonal slope. In those places both sides of the canal were cut into the existing terrain and are representative of the typical sections of most of the COC. The top of the embankment on the outside edge is smooth and solid, showing the compaction of layers of rock and soil that was done to make the canal strong enough to hold swiftly-flowing water. The outside edge of the embankment is not covered with rock or riprap. Native plants grow sparsely on the embankment and there is little erosion, and orchard grass covers some of it that is watered by irrigation sprinkler overspray (Photos 6, 20).

Ditch-Rider Road

The ditch rider road is an associated feature that generally parallels the canal and is used by the ditch rider/patrolman to check on the condition of the canal, to adjust headgates to laterals and ditches, and to make repairs. Since motorized vehicles have been used by irrigation district staff for their inspections and maintenance, parallel tire tracks reduce vegetation where trucks are driven along the canal. An approximately 12' wide strip on the northern embankment and through the native terrain running the full length of the canal in the historic district has parallel tire tracks through sparse native vegetation. The ditch rider road is intermittently improved with red or brown crushed cinder rock to reduce the growth of native and invasive plants. Green metal gates at each end of the historic district control vehicular access along the ditch rider road and canal from Ward Road and Gosney Road and discourage unauthorized entry. The parcels of land underlying the ditch rider road, embankments and canal are owned in fee by 43 private and 2 public parties.³⁶ One gate is next to the Ward Road Bridge and the other is 0.1 mile west of Gosney Road. Two more green metal gates along northern fence lines allow the COID staff to access the ditch rider road from Bear Creek Road at Laterals 'B' and 'C'.

³⁶ List of property owners provided by the Oregon SHPO, August 2017.

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Looking northeast from ditch rider road to the 'B-1' Lateral and irrigated horse pasture on Allan S. Boss's farm.³⁷

Parcels in the Historic District, Subdivisions and Ranches

The western one-fourth of the historic district is in rural residential subdivisions. The lots in various development phases of the Dobbin Acres subdivision on the northern side of the canal were platted since 1972 and extend to the centerline of the canal. Most of the 1.5 to 3.5 acre lots have appurtenant irrigation water rights served by two headgates on the COC. The terrain drops down from the canal to the flat Dobbin Road. The berm forming the northern side of the canal is higher than the roofs of houses below it. Residents can't see the canal on the hill behind them. Agricultural fencing runs along the berm to contain horses, goats, and sheep. One undeveloped parcel bordering the canal has native vegetation of juniper trees, bitterbrush, and sagebrush.

South of the centerline of the canal on the western third of the district are various phases of the Arrowhead Acres subdivision, originally platted in 1966. The 1- to 7-acre lots with irrigation water rights are served by the Arnold Irrigation District. Somerset subdivision was originally carved from a 121-acre ranch in 1976, resulting in lots of around 3 acres in size. Most of the lots in Arrowhead Acres and Somerset extend to the centerline of the canal. Some of the unfenced lots have lawn running up to the water's edge. Others have undeveloped scrub land or livestock fencing and pasture next to the canal.

At the non-contributing one-lane wooden Bear Creek Ranch Bridge that crosses the canal, the setting changes abruptly from hobby farms and rural residential subdivisions to ranches and large parcels for the eastern three-fourths of the historic district. Generally, houses and barns are set well away from the canal and are not visible from it. Most of the parcels have water rights and are partially irrigated, as they were in the historic period. The cultivated parcels are primarily used for pasture for goats, cattle, llamas, and horses. Two publicly-owned parcels consist of undeveloped Juniper and sage scrub land.

The nominated segment comprising the historic district bisects 43 parcels in private ownership that vary in size from 1.13 acre to 51.09 acres and two other larger parcels that are in public ownership. Some parties own more than one parcel. A 79.60-acre parcel is owned by Bend Park & Recreation District and is used for outdoor recreation and pedestrian and bike trails. A 40-acre parcel of native vegetation is owned by the COID for an emergency reservoir. In summary, twenty-five parcels that are crossed by the canal, mostly on the west quarter of the district, are less than three acres in size. Five parcels are between 3 and 10 acres in size. Eight parcels are between 11 and 20 acres in size. Five parcels are between 21 and 40 acres and two parcels are between 50 and 80 acres in size. Most of the properties extend to the centerline of the canal, except for some lots, such as the Turner's 15-acre parcel, the Grund's 51.09-acre parcel, and the Bend Metro Park & Recreation District's 79.60-acre parcel, which occur on both sides of the canal. The recorded easements in the deeds allow COID, a quasi-municipal organization of irrigation water users, to operate and maintain the canal for irrigation purposes³⁸ (Figures 4a-4f).

³⁷ Photo by Patricia Kliewer, May 26, 2017.

³⁸ Memorandum to Deschutes County, 2014, from Law Office of Bruce W. White, based on Deschutes County deeds for each

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Historic Setting

Throughout the eastern three-fourths of the historic district, most of historic setting retains integrity. The land was settled between 1910 and 1937. None of the original 40-acre parcels was completely cleared or cultivated due to surface rock, rock outcroppings, or lack of appurtenant water rights (Figures 11, 12 and 14a-c). Water rights were awarded only for the portion of each parcel that could be irrigated and cultivated. Some of the non-farmable parcels were not included in Segregation List 6 (Figures 9 and 10). Some of the uncultivated land adjacent to the district is not farmable due to poor shallow volcanic soils and lava flows near the surface and the hilly terrain. Section 8 will describe the settlers and which parcels were cultivated, and which were never sold (Figures 14-20). The cultivated and irrigated parcels are used today for vegetable gardens and pastures for horses, sheep, goats and cattle, and a fruit orchard. The historic irrigation ponds and ditches remain and continue to be used.



The COC in the historic district in winter, through uncultivated, flat, scrub land in public ownership. There are cuts into the terrain on both sides, resulting in no berms, and standing water. Photo looking east.³⁹

METHODOLOGY USED to INVENTORY and DATE STRUCTURES

The preparers of this nomination acquired extensive first-hand knowledge of the entire COC and the historic district. The team includes a historic preservation planner, a retired USGS hydrologist, and a registered civil engineer along with a dozen long-term owners who have day-to day observations and use the canal and its infrastructure in the district, dating back 50 years. Loretta Hadley is the granddaughter of an original homesteader, Dragan Mirich, and is the current owner of 16 acres of pasture that formerly was the Paul S. Hackett Turkey Ranch. She and the others shared photos of the canal and use of the land for the past 100 years.

The team walked beside the canal along the ditch-rider road for five miles at the inception of the project, surveying it between 27th Street in Bend on the west to beyond Gosney Road on the east to determine the boundaries of the proposed historic district. Aerial photos were consulted for the next 2.25 miles and the team hiked five miles of the canal in the flat terrain east of the historic district between just south of Highway 20 to Dodds Road and Walker Road. The 'I' Lateral was hiked from its diversion gate near Dodds Road along Reynolds Pond and Zell Pond to Alfalfa Market Road. The entire 47 miles was observed and photographed twice from the Deschutes River to the Crooked River by driving along it where that was possible and photographing it at all road overpasses and viewpoints. The nominated (but not listed) segment at Brasada Ranch was walked and photographed twice. Files at Bowman Museum in Prineville, the Deschutes County Historical Museum in Bend, the Oregon State Archives, historical government reports and national register nominations were researched.

property in the district at the Deschutes County Clerk's office.

³⁹ Photo taken in eastern half of the historic district by Patricia Kliewer, March 3, 2017.

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Once the historic district boundaries were set, the professional team surveyed and photographed the district a half a dozen times in all seasons, including four times while the water was flowing in it and twice when it was not. Inspections of the canal, the irrigation infrastructure and all structures within the historic district were carefully made and noted. Observations were recorded of surrounding land uses, irrigation laterals, ditches, property and pasture fences, seasonal crops, irrigation ponds, barns, and livestock. Lateral 'B' and 'C' were followed to their ends.

Two meetings were held with the of the Bend Park & Recreation District's Executive Director, Don Horton and other park district planning staff to discuss year-around public parking and public access to the historic district, including developing trails from possible parking areas and access points on Ward Road and Gosney Road through the 80-acre parks parcel within the historic district.

Field Survey of the Canal in the Historic District

To determine the character-defining features of the canal in the historic district and to survey all structures, exacting and systematic fieldwork was undertaken on April 3, 2017, using methodology previously used by the professionals to survey historic linear resources. The same survey methodology was used for the nomination of the Pilot Butte Canal Historic District (Yeoman Road-Cooley Road Segment) (PBCHD), listed on the National Register of Historic Places on Feb. 6, 2016.

During the survey, two members of the team walked in the canal bed and five members walked bedside it, three on the north side and two on the south side, for the entire length of the historic district. The crew measured and recorded the altitude, latitude, and longitude at data collection points in 300-foot intervals. Each of the 71 data collection points was identified by a section ID number and its corresponding GPS coordinate. Using the Garmin GPS location, the elevation of the northern edge of the canal was recorded in the table. At each data collection point, the team also measured and recorded the shape and size of the canal, the width of the north berm, the width of the canal at daylight (top of water line), the width at the canal bed between the toes at the bottom of the canal, the width of each interior side slope, the vertical and horizontal positions of the low and high points in the highly uneven bed, the depth at the north toe and south toe, and the location of each headgate and structure. Unusual features were also noted, such as stacked rock on a side slope at three sharp turns. All associated structures were noted. The historic features that display construction methods, such as rocks retaining drill holes, were photographed. Alterations were noted. Photos of the canal were taken at each data collection point. The table of some of the data collected at the 71 data collection points is presented as Figure 21.

In addition to the measurements entered in the data table presented as Figure 21, the surveyors determined the overall characteristics, such as the canal's irregular trapezoidal shape. The top width of the canal at daylight and the position and width between the north and south toes define the irregular trapezoidal shape. The top width of the canal at daylight ranges from 34' to 78', averaging around 50'. The interior angle of the canal, measured between the toes, ranges from sheer vertical such as at section 167 where it is only 1.5 feet deep, to a slope of 19.5 feet horizontal from the edge of the canal at a depth of 9 feet, at section 138. The depth of the canal varies from 1' to 9', averaging around 4' deep. The canal was built in irregular profiles and various depths. The north berm varies in width from 14' to 27', with shorter berms being narrower and the taller berms being wider. The median berm width is 18'. At points in which north berms were observed, they were measured, and they varied from 1' to 12' tall.

Dating the Structures, Laterals, and Ditches

The intensive level historic resources survey of the COCHD consisted of a series of six field inventories and inspections of the irrigation infrastructure, ditches, laterals, and irrigation ponds as well as any structure within the 100-foot wide historic district and adjacent to it. Recordation consisted of inspecting the integrity of each identified resource, establishing its estimated construction date, collecting basic information about its design and construction, photographing each item, and evaluating integrity.

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Construction dates were determined using a combination of research materials, including primary source materials such as original construction drawings on file at the Oregon State Archives in Salem and the COID office in Redmond (useful for identifying structures that were part of the original 1905 construction), Oregon State Engineer's reports and maps created for the Desert Land Board (useful for identifying structures built before 1924), historic maps from 1909 and from the period 1911 to 1950 at Bowman Museum in Prineville and the Deschutes County Museum in Bend and two sets of aerial photos post-dating the end of the Period of Significance (a 1943 set flown by the US Army and a 1951 set flown by the US Dept. of Agriculture) showing the structures, ditches and laterals in place at that time. Additional sources of dating information included the records of water rights cases at the Deschutes County Circuit Court, newspaper articles about the irrigation system's planning, development and promotion appearing in each issue of the Bend Bulletin (between 1903 and 1921), detailed state engineer reports from 1905 to 1921, and other documents at the Oregon State archives all provided information about the nominated segment's and associated laterals' and ditches' construction and widening, dimensions, water loss and flow data. These sources recorded data by the location of headgates and bridges, thereby helping to date them. The historical records provide data on when structures were built, when water rights were awarded, and when the resulting delivery ditches were constructed by the settlers. This was supplemented by the analysis of historic and contemporary maps, which provided side-by-side comparisons of changes over time and showed the development of laterals and ditches. For instance, the 1943 US Army aerial photo shows an early bridge across the canal just east of Ward Road called the Bradetich Bridge, the Bear Creek Ranch Bridge, Burt's Bridge across Burt Chute, and two catwalks and the metal pipe crossing the canal. The 1962 USGS Bend Airport, Oregon quadrangle map shows four bridges or catwalks across the canal in the district, including the three that are currently in those locations and the fourth one that crossed the canal at Burt Chute but has since been removed.

In addition to the above listed sources, the dates of headgates, Stearns Waste, Burt Chute, Bear Creek Ranch Bridge, and the remnants of Flume #2 (archaeological site 35DS3033, Figure 32) were determined through a combination of five sources: 1) construction dates of the canal and the 'B', 'B-1', and 'C' Laterals, 2) an examination of historic equipment catalogs and web sites for irrigation equipment for manufacturer information on the structures; 3) discussions with an irrigation district ditch rider; and 4) oral tradition gleaned from property owners who use the structures, and who, in many cases, asked for the gates to be improved and remembered when they were installed. Dates that were carved into concrete, such as the series of gates set in concrete at the Stearns Waste, or painted on metal, were also used.

CONTRIBUTING AND NON-CONTRIBUTING STRUCTURES IN THE HISTORIC DISTRICT

There are 39 individual resources in the historic district. One is the primary structure (canal), 37 are secondary structures, and one is an archaeological site. Of these individual resources, 29 are contributing to the nominated district and 10 are non-contributing. The primary historic structure is the historic-contributing main canal itself. Secondary contributing resources include the tapered concrete Burt Chute that bridged a sinkhole, and the remains of at least 49 wooden pilings and one beam of an original 1905 wooden flume called Flume #2 (included in this nomination as archaeological site 35DS3033, a contributing feature to the nominated district). Additionally, there are 18 hand-screw-operated slide-paddle turnouts or headgates to ditches and laterals. Each headgate that diverts water to enter ditches, sub-laterals and laterals, which may or may not be attached headwalls, or may be in a shared headwall, and associated pipes and weirs is counted as one structure, except for the set of three gates at Stearns Waste which work in tandem with one another. Some headgates were in use during the period of significance and are classified as contributing, while others that are essential to the operation of the canal but have been constructed since 1937 are non-contributing. The historic corrugated metal pipe set on historic concrete piers delivers irrigation water across the canal and is non-contributing. The historic wooden Bear Creek Ranch Bridge set on historic concrete piers is a transportation structure and is therefore non-contributing. Two metal catwalks, the checks across the canal and the associated turnout or headgates on the south side are counted as single structures. Both sets of catwalks are

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visible on the 1943 aerial photos. Stearns Waste, a 1933 set of three headgates to pipes leading to a 40-acre reservoir that are set in one headwall and the associated catwalk and check are counted as one contributing structure (Figure 5).

The Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD

The MPD under which this historic district is being nominated contains assumptions and direction for classifying the irrigation infrastructure. The applicable instructions are referenced:

“Materials — A property should retain the materials with which it was built. For some property types, the partial in-kind replacement or repair of materials does not necessarily constitute a loss of integrity. Replacement with non-original or modern materials may be acceptable if the materials are compatible, meaning they sufficiently replicate or resemble the original materials. As with integrity of design, repairs to water conduits/conveyances and the in-kind replacement of the deteriorated components of flow control and measuring devices do not constitute a loss of integrity, if the resource's materials are replaced in-kind or are compatible. Integrity considerations specific to certain property types are outlined in the appropriate description sections below.”⁴⁰






TABLE 1: Structures in the Historic District

| Name of Structure | Photo of Structure | Historic Contributing | Non-Contributing | Date of Original Structure |
|---|---|-----------------------|---|--------------------------------|
| PRIMARY RESOURCE | | | | |
| Main Canal Includes associated embankments on either side and the ditch rider road on north side. * |  | X | | 1905 Widened 1913-14 |
| SECONDARY RESOURCES | | | | |
| Corrugated pipe Pipe set on mortared rock piers, that conveys water from a ditch on one side of the canal to the ditch on the other side where it serves three properties. |  | | X Accessory Structure (part of farm field delivery, not considered a part of the irrigation system, per MPD) | Ca 1921 |

⁴⁰ Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-37

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| | | | | |
|--|---|----------|---|---|
| <p>Bear Creek Ranch Bridge on concrete piers.</p> |  | | <p>X (outside the agricultural irrigation context)</p> | <p>Ca 1928</p> |
| <p>Burt Chute and Stilling Pond. Also known as "Sinkhole Crossing near B. Lateral"</p> |  | <p>X</p> | | <p>Ca 1911 Drawn on a 1911 map by the Oregon State Engineer.</p> |
| <p>Flume #2 (site) Wooden Flume Remains (Archaeological Site# 35DS3033, Figure 32)</p> |  | <p>X</p> | | <p>1905</p> |
| <p>TURNOUTS also known as HEADGATES to Ditches and Laterals Listed in geographical order, from west to east⁴¹</p> | | | | |
| <p>Headgate 1 Labeled COC 8. North side of the canal.</p> |  | <p>X</p> | | <p>1905</p> |
| <p>Headgate 2 No headwall Labeled COC 9. North side of the canal.</p> |  | <p>X</p> | | <p>1905</p> |





⁴¹ Headgates are numbered to correspond with the numbers provided on Map (Figure 5a), indicating the location of each.

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|---|---|----------|--|------------------|
| <p>Headgate 3 Labeled COC 10. No headwall. North side of the canal. *</p> |  | <p>X</p> | | <p>1905</p> |
| <p>Headgate 4 Associated metal weirs and catwalk, concrete headwall. Gate is on the south side of canal and leads to ditch that flows into metal pipe. Labeled COC 11.</p> |  | <p>X</p> | | <p>1905-1930</p> |
| <p>Headgate 5 Labeled COC 12. North side of the canal.</p> |  | <p>X</p> | | <p>1905-1914</p> |
| <p>Headgate 6 Associated crude concrete weir over rocks. Labeled COC 13. No headwall. North side of the canal. *</p> |  | <p>X</p> | | <p>1905-1914</p> |

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| <p>Headgate 7 Concrete headwall. Labeled 'B' Lateral. North side of the canal. *</p> |  | <p>X</p> | | <p>1905</p> |
| <p>Headgate 8 Non-historic concrete headwall with wings. Labeled 'B-1' Lateral. North side of the canal. *</p> |  | <p>X</p> | | <p>1905</p> |
| <p>Headgate 9 In concrete distribution box next to ditch rider road at 'B-1' Lateral. North side of the canal. *</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 1950</p> |
| <p>Headgate 10 Non-historic concrete, angled headwall. South side of canal. *</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 1965</p> |
| <p>Headgate 11 Non-historic concrete headwall with wings. Non-historic gate. North side of the canal.</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 2000</p> |

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|--|---|----------|--|----------------|
| <p>Headgate 12</p> <p>Associated crude concrete and metal weir.</p> <p>Shares headwall with Headgate 13.</p> <p>Labeled 'C' Lateral.</p> <p>North side of the canal. *</p> |  | <p>X</p> | | <p>1905</p> |
| <p>Headgate 13</p> <p>Associated concrete and metal weir.</p> <p>Shares headwall with Headgate 12.</p> <p>Labeled COC 15.</p> <p>North side of the canal.</p> |  | <p>X</p> | | <p>1914</p> |
| <p>Headgate 14</p> <p>Non-historic, angled, concrete headwall.</p> <p>South side of canal. *</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 1940</p> |
| <p>Headgate 15</p> <p>Non-historic concrete headwall with wings.</p> <p>Labeled COC 16.</p> <p>North side of the canal. *</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 1960</p> |

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|--|---|----------|--|---|
| <p>Headgates 16, 17, 18 Associated metal and wood catwalk. Shared concrete headwall. South side of canal.</p> |  | <p>X</p> | | <p>1933 Updated in 1988</p> |
| <p>Headgate 19 Non-historic concrete headwall with wings. Labeled COC 17. North side of the canal. *</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 1960</p> |
| <p>Headgate 20 Non-historic concrete headwall. Labeled COC 18. North side of the canal.</p> |  | | <p>X (outside the Period of Significance)</p> | <p>Ca 1960</p> |
| <p>Headgate 21 Newest gate, non-historic concrete headwall with wings and weir box. South side of canal.</p> |  | | <p>X (outside the Period of Significance)</p> | <p>2000</p> |

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DROPS⁴²

**All drops were constructed in 1905
 See Map (Figure 5b), and Construction Drawings (Figures 25a-25e)**

Listed in geographical order, from west to east







| Name (#) ⁴³ | Photo During Irrigation Season | Photo After Irrigation Season** | Contributing Classification |
|---------------------------|---|--|--------------------------------|
| Drop (22) |  |  | Contributing |
| Drop (23) |  |  | Contributing |
| Drop (24) |  |  | Contributing |

⁴² Photos of drops and waterfalls taken by Patricia Kliewer on August 15, 2018.

⁴³ The numbers provided here correspond to those that appear on Map Figure 5b, indicating the location of each drop.








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| Totals | Contributing – 29 |
| | <u>Non-contributing – 10</u> |
| | Total resources - 39 |
| <ul style="list-style-type: none"> • * Photos taken on December 7, 2017 by Patricia Kliewer. • ** Photos taken on November 15, 2018 by Patricia Kliewer | |

DESCRIPTION OF EACH STRUCTURE/SITE

Historic Contributing Main Canal

The principal historic contributing structure is the main canal. This segment of the canal was constructed in 1905 and enlarged in 1907 and 1913. In 1913, the section between mile posts 7.5 and 11 was enlarged. The historic district generally includes mile posts 7-10. Mile post 10 is just east of Gosney Road. The *Crook County Journal* newspaper reported on April 13, 1905 that the first 12 miles of the canal east of the Deschutes River were completed⁴⁴ (Figures 25a-e and 28-31).

Comparing the canal today with historic topographic maps, descriptions and aerial photos of the area revealed that the canal in the historic district has survived nearly intact since it was last enlarged in 1913.⁴⁵ It is in the same location and its route has not been altered and its width remains the same. One point in the canal bed has undergone a non-historic alteration. Historically, an island that was annually planted with flowers by the property owner, was in rapids about fifty feet upstream of the Bear Creek Ranch Bridge. COID crews removed the island about 8 years ago. The work inadvertently exposed a lava tube that sucked in all the water from the canal along with adjacent rocks, earth and fences. The cavern took weeks to fill with dozens of truckloads of rock and concrete.⁴⁶ Upstream rocks have rolled with the force of the water to cover the repair, and its location is not visible.

The canal retains its impressive historic open, trapezoidal shape, dimensions and characteristics. It is characterized by the volcanic rock flows, native materials, rocky bed and sides, and its hurried hand-hewn workmanship. These remain significant elements giving a unique character to this stretch of the canal. Water flowing over especially rocky areas creates rapids (Figures 2, 27a, 27b). Intermittently, water churns, dives, and splashes over and around large rocks and rock flows. The rough, rocky characteristics of the canal and terrain are conveyed in a strong expression of the aesthetic quality of the canal. The appearance and sounds of the water in the canal during irrigation season indicate the nature of the canal bed. Water is smooth and quiet where projecting rock is minimal, or the canal is deep, while rapids and the sound of moving water indicate dense, large rocks below, a shallow area or a sudden drop in elevation.

Engineers measured the drops in elevation, roughness, and other factors of friction, as well as the size and shape of a channel, all of which were known to contribute to either a faster velocity of water in a canal or a slower one. Known as the value of 'n', Manning's Roughness Coefficient, the 1914 state engineer's report on the Deschutes Project to the Desert Land Board commented on the rocky stretch of the canal in the district: "The values of 'n' on the main canal are found to be much larger than in the original plans, the reason being that the construction left the canal with a very rough rock bottom. On the COC in the historic district, the values of 'n' are like that of the natural water channels and are the highest in the length of the canal."⁴⁷ The canal bed

⁴⁴ *Crook County Journal* Newspaper, April 1905, page 1.
⁴⁵ *Bend Bulletin*, Friday, May 13, 1904, "Water on Desert", Bend, OR
⁴⁶ Interview with Suzanne and Gary Grund, April 3, 2017.
⁴⁷ *Id.*, pages 16-19.

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retains its historic roughness. The roughness of the rock bed is obvious for the entire length of the canal in the district, except for in Burt Chute, and is a character-defining feature.

The date that the 350'-long wooden flume at the east end of the historic district was removed is unknown, but historic aerial photos indicate it was replaced with embankments before 1942. COID purchased the 40 acres nearby that is called the COI District Reservoir in 1932. It was the source of materials to make replacement embankments. It is therefore likely that the tall berms or embankments on either side of the canal in this location were constructed after 1932, and before 1937. The "new" embankments were constructed with compacted native rock and soil scraped from the COID land on the south side of the canal, using methodology from the historic period. They have the same appearance as the other original embankments and have haphazardly-placed rock as riprap on the interior side slopes of the canal. The force of the water has moved riprap and rock annually.⁴⁸



Photo of the location of a former island, upstream of the Bear Creek Ranch Bridge, ca 1928, looking east.⁴⁹

Non-Contributing Bear Creek Ranch Bridge

The settlers in the area of Lateral B accessed their properties from Bear Creek Road, on the north side of the district. To reach both sides of 40-acre to 160-acre parcels that were crossed by the canal, bridges were necessary. In the historic period three wooden bridges were in use in the district. The oldest was just east of the Ward Road Bridge and was on the Bradetich Ranch. A second bridge was the Burt Bridge across Burt Chute. All three bridges are visible on the 1943 aerial photos in Figures 26a and 26b.

Bear Creek Ranch Bridge, the third bridge, is the only remaining bridge. It is in the northwest quarter of T18S, R12E, Section 1. It was built around 1928 by the property owner, Mike Dragosavac, and neighbors, including Dragan Mirich. The 1943 aerial photos and a 1962 USGS Quadrangle map show a dirt road connected Torkelson Road to the location of the current one-lane bridge. The 65'-long and 10'-wide bridge is constructed of rough-sawn 10" by 10" lumber spanning metal "I" beams set on three historic concrete piers. Planking of 4" by 12" wood provides the level driving deck. In 1990, the current owners, Suzanne and Gary Grund, replaced 43 of the original 57 rotting 4" x 12" fir decking planks with pressure treated lumber, in kind. The new planks are attached to the spans by bolts, while the historic decking is attached with 12" nails. One of the steel beams is historic, but two steel 'I' beams were installed in 1990 to add strength. The bridge does not have any side rails. A non-historic 1" diameter white plastic water pipe is suspended from brackets along the western edge of the bridge, giving the bridge a false wavy appearance.⁵⁰ The bridge is not part of the irrigation system and is a transportation structure, and, therefore, is a non-contributing structure in the historic district.

⁴⁸ Interviews with Robert Stephen and Cynthia Gibson.

⁴⁹ Photo by Patricia Kliewer, April 3, 2017.

⁵⁰ Interview with Gary and Suzanne Grund, March 2, 2017.

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Historic Contributing Burt Chute and Pond

Burt Chute was also called the “Sinkhole X-ing near the B Lateral” by the COID. It is an historic concrete structure that conveys water across a lava tube. The chute and the associated pond are shown at this location on a 1911 map of the irrigation system drawn by the State Engineer.⁵¹ The poured concrete structure is near the middle of the historic district in the northwest quarter of T18S, R13E, Section 6. It has vertical sides of a consistent 4.8’ height. It can be used to measure volume of flow. It tapers in width like a funnel and is sloped downgrade from west to east to its open end at the pond. The 215’-long structure channels a high velocity of water flow and is self-cleaning. The canal is 45’ wide on the western edge of the chute where water enters the chute. The chute tapers to 13.5’ wide where it drops water into the pond. The water line is at 2.8’ in the chute. The chute forcefully empties into an approximately 120’ wide, oval-shaped pond on its eastern side. The pond stills the waters, dispersing the high energy and velocity of water shooting out of the flume.

According to Richard Torkelson⁵², Burt Chute was constructed to bridge a cavern or lava tube that would not hold water when the canal was built. It has the same appearance today as when he fished in the canal regularly with his brothers in the 1940s.⁵³ The pond remains full of water and fish year-around, regardless of whether the irrigation water is flowing. Until the fish screen was installed at the diversion point at the Deschutes River in 2001, this was a popular private fishing hole for neighbors. It used to be teeming with fish. Neighbors could catch fish in a net as they came down the chute. The Burt Chute is a historic-contributing structure in the historic district. The chute was referred to as “Burt Chute” because it was next to the bridge that accessed Amy and Philip C. Burt’s 160-acres in Township 18, Range 13, Section 6 that they gradually purchased between 1909 and 1921⁵⁴ (Figure 14a). Downstream of the pond, the canal narrows to 55’ wide and 5’ deep.



Photo looking east toward Burt Chute.⁵⁵

The Deschutes irrigation and Power Company constructed a bridge over the narrow portion of Burt Chute when it was built, to allow the ditch rider to access both sides of the chute and canal and for settlers to use. According to many interviews with families that have been in the area for fifty years, the bridge was fascinating and somewhat frightening. It looked very similar to the Bear Creek Ranch Bridge, with a wooden single-lane wooden deck and no sides. It was strong enough for farm trucks to cross. People used to ride horses to it, and watch the water rushing under them. A well-known story is that the bridge was removed after 1960 when a young lady’s horse was spooked by the current and it leaped off the bridge, while she landed hard in the concrete chute. Swiftly flowing water swept her into the pond. She was able to swim out, bruised and shaken

⁵¹ Map by Charles E. Strickland of T18S, R12E, redrawn in March 1949 from original May 1, 1911 and Feb. 10, 1928 maps.

⁵² Richard Torkelson was the youngest of nine children born to Bert Torkelson, who settled on Bear Creek Road at the corner of Torkelson Road near Burt Chute in 1908. Richard Torkelson grew up near the historic district.

⁵³ Interview with Richard Torkelson on June 10, 2017.

⁵⁴ Interview with property owner David Turner, May 26, 2017. The Turners have owned the property since 1996. 1910 Federal census for Crook County, OR.

⁵⁵ Photo by Patricia Kliewer, March 3, 2017.

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up. Many neighbors heard about the incident and wondered who was responsible for the safety and condition of the bridge, the property owner or COID, so it was removed. It is indicated on the USGS 1962 quad map.⁵⁶



Burt Chute discharges water into a wide stilling pond. Photographer looking east.⁵⁷

Historic Contributing Wooden Flume Remains of Flume #2 (Archaeological Site# 35DS3033)

The 1911 state engineers map and other historic maps and evidence in the canal, indicate that a significant wooden flume was at a low point in the canal and was about 350'-long and 12' wide.⁵⁸ The original 1905 chief engineer's plans for the canal indicate the flume and include a plan for it (Figure 25e). The remains are not visible during the irrigation season, as they are under water, but they are visible in the off season. A series of deteriorating lumber is partially buried in year-around standing water and silt. The remaining posts formed the piers and one cross beam formed part of a wooden flume that bridged the lowest point in the canal in the historic district. Forty-nine 10" x 10" piers remain, mostly arranged in rows of seven across the width of the canal. The remaining piers from east to west cover 305'. Some 12' lumber used in cross beams framing the flume remains in place, covered by water and partially covered with silt. The flume is at the eastern end of the historic district on the Diane and Robert Stephen property, in T 18S, R13 E, Section 8. The flume is indicated on historic maps drawn in 1911 and 1928. The flume is not present on the 1943 aerial photos, Figures 26a and 26b, and had been replaced with embankments on both sides by that time. The wooden flume leaked and required constant maintenance. According to page 5 of the 1914 report to the Oregon Desert Land Board by John Dubuis, wooden flumes were expected to be replaced every 15-20 years. Flume #2 was likely replaced with a set of the tallest earthen berms (embankments) in the historic district between 1933 and 1937.

Six rows of seven vertical posts have rotted off, but the bottom portions remain in place. Several nails that are about 12" long with heads that are roughly 0.75" wide were found at this location in the canal bed. It is expected that over time, the wood will continue to rot away. The historic flume was between Teal Road and Gosney Road. The rocks and soil now forming the berms were scraped from the COID reservoir property.⁵⁹ The berms were recently sealed with Bentonite clay. The wooden flume remains represent a historic contributing site within the bed of the canal.

⁵⁶ Interview with Lynn Schilling Johnson.

⁵⁷ Photo by Patricia Kliewer, May 26, 2017

⁵⁸ State Engineer Charles Strickland map on file at the Deschutes County Circuit Court in case record of water rights adjudication.

⁵⁹ Interviews with COID ditch rider Jim Hollander and Robert Stephen.

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Looking east to six rows of seven piers and other piers protruding from the silted canal bed where an historic flume once stood (Archaeological Site 35DS3033, see Figure 32).⁶⁰



Looking down into the bed of the canal at a crossbeam nearly covered with silt. It is made of three boards, arranged in a box pattern and attached with nails.⁶¹

Non-Contributing Irrigation Pipe across the Canal Resting on Concrete and Rock Piers

A historic-period non-contributing, approximately 6"-diameter, corrugated steel pipe spans the canal near the property line between the Walden and Grund parcels, just upstream from the Bear Creek Ranch Bridge. The pipe and concrete piers were constructed and installed around 1921 to serve settlers on the north side of the canal. The corroded and dripping pipe rests on metal brackets set into three worn historic piers. The pier in the center of the canal is made of worn concrete. Two other piers, one on each side of the canal, are made of large rocks cemented together. Water enters the pipe from a 1' wide by 1' deep open ditch on the south side and flows north across the canal to the ditch running toward Bear Creek Road, alongside the Judith Hanson property. The water is coming from the Bear Creek Ranch ditch that begins at Headgate #4. The pipe is visible on 1943 aerial photos in Figures 26a and 26b. While the pipe belongs to the Period of Significance, it is contextually related to the farm property to which the pipe delivers water, rather than that of the whole of the irrigation system, per the MPD.

⁶⁰ Photos by Patricia Kliewer, April 13, 2017.

⁶¹ Photo by Patricia Kliewer, April 3, 2017.

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Looking northwest to a metal irrigation water delivery pipe supported on three historic rock piers.⁶²



Irrigation water flows north into the pipe, from an open ditch and crosses the canal. Looking north.⁶³

Historic Contributing Turnouts or Headgates to a Sub-Lateral and 8 Ditches

There are 11 contributing headgates and 8 non-contributing headgates. All of them are the same hand-operated screwgate style. The gates are operated by turning the metal handwheels at the top of the metal structures above water level. The wheels operate metal threaded screw lift rod assemblies that open and close by moving the metal slide gates across metal pipes in the water. The gates to the laterals are three times larger in diameter than the gates to ditches. The hand-operated wheels turn the threaded screw lift rod assemblies that slide the metal paddles in the water upward to expose the metal pipe that runs under the berms toward the laterals. The handwheels are turned the other way to lower the paddle to cover the pipe to decrease or end water flow. Only the handwheels and tops of rods are visible when water is flowing.⁶⁴

Historic Contributing Replacement Structures at Stearns Waste

A historic contributing Stearns Waste group of structures is at the southern end of Teal Road. They include a historic catwalk crossing the canal. The present 45'10"-long and 22"-wide catwalk was installed about 1933 to allow the ditch rider to rapidly access the three wastegates on the south side of the canal in an emergency. The headgates are the same style as all 21 headgates in the historic district. They are hand operated by metal wheel controls, threaded screw lift rod assemblies and metal slides across corrugated steel pipes. The set of

⁶² Photo by Patricia Kliewer, November 7, 2017.

⁶³ Photo by Patricia Kliewer, November 7, 2017.

⁶⁴ According to the MPD, "To be considered contributing properties, flow control and measuring devices must exhibit sufficient integrity to successfully express the historical role and function of their property type within the overall nominated property. The in-kind replacement or reconstruction of component parts for the purposes of repair and regular maintenance should not necessarily be considered a loss of integrity, and a resource does not need to remain in its original use. Headgates, for example, do not need to retain all five of their basic components in original condition (i.e. headwall, stem, paddle or slide, frame, and handle) to be considered contributing resources. The reconstruction of a headgate's metal frame or the in-kind replacement of paddles, slides, or stems due to deterioration is an expected maintenance activity and should not constitute a loss of integrity. In contrast, a headgate would lose integrity if its original headwall or its metal gate structure were completely removed or replaced." Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-64.

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three 40" diameter pipes in a shared board-formed, poured concrete headwall with a flat face and wingwalls were installed in 1988 to replace the original 1933 set on the south side of the canal to allow COID staff to drain the canal in an emergency. The set of three large pipes convey water downhill through corrugated metal pipes under the 20' wide and 19' deep south berm to a drainage ditch on COID land. The pipes allow the ditch rider to divert the water from the canal into the low portions of COID's 40 acre "reservoir" and a portion of the 11.3 acres to the east owned by Diane and Robert Stephen

Stearns Waste is named for Sidney Summer Stearns (1856-1923), a well-known cattle rancher. In 1920 Stearns purchased the original settler's, Norman Weyand, 40-acre parcel in a Central Oregon Irrigation Company mortgage lien foreclosure proceeding. He was the highest bidder of \$2,673.58 at an auction at the courthouse door. Stearns widow, Francis Stearns, sold the 40 acres of scrub land to COID in 1932. COID has used it as an emergency reservoir since then⁶⁵ (Figures 14a, 18, 19, and 20). Typically, Stearns Waste is used to drain the canal when the canal is damaged downstream, and water is flooding out of the canal bed, or when ice dams during winter stock runs back up the water, causing it to overflow the canal banks. Although the intake gate at the Deschutes River is closed as soon as possible in an emergency, it takes a full day after the intake is closed to empty the canal, if the waste gates are not opened. The tremendous volume of water conveyed by the canal can quickly flood personal property and roads. A series of waste gates are spaced along the canal and are used to safely and quickly drain the canal downstream.

The current Stearns Waste structures replaced a set of three historic headgates, installed around 1933, in the same location. The historic gates were similar metal wheel controls, threaded screw lift rod assemblies and metal slides across corrugated steel pipe, but they were smaller in diameter than the current gates that replaced them. They are an important part of the entire 47-mile long main canal. While they were installed in 1988 to replace the earlier set of three gates in the same location, they meet the MPD's criteria to classify replacement structures in kind as contributing.



Looking south at Stearns Waste, three headgates and pipes to a reservoir on the south side of canal.⁶⁶

⁶⁵ Deschutes County Deeds, Metzger Maps, interview with Richard Torkelson and interview with ditch rider Jim Hollander.

⁶⁶ Ibid.

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The headgates at Stearns Waste can discharge water from the canal to COID scrub land in an emergency.⁶⁷

Contributing Catwalk, Weir and Headgate to the Bear Creek Ranch Ditch

Another historic green metal catwalk with handrails and a wood plank deck spans the canal between the Bonneville Power Administration's overhead transmission lines and the Bear Creek Ranch Bridge. It is 67'10"-long and 22"-wide and is adjacent to the headgate on the south side of the canal that opens to divert water from the main canal into the irrigation ditch that flows to the 51.09-acre Bear Creek Ranch. The ditch flows into the corrugated metal pipe previously described that conveys the water across the canal to three patrons on the north side of the canal. It is listed in Table 1 as Headgate #4. The catwalk, concrete and metal diversion weirs, and concrete headwall were installed before 1927. The headgate, weirs, headwall and catwalk are counted as one structure. The historic wooden headwall behind the headgate was replaced in the 1960s with a board-formed concrete headwall. Board formed concrete and metal weirs that partially span the canal raise the water level to divert water into the open headgate. The headgate to the ditch is historic and is operated by the metal wheel control, threaded screw lift rod assembly and a metal slide across a corrugated steel pipe. The catwalk and ditch served by the headgate are visible on the 1943 aerial photos in Figure 26a and 26b.



Catwalk, weirs, and headgate to Bear Creek Ranch ditch, looking northeast.⁶⁸

Three Historic Contributing Turnouts or Headgates to Laterals

Three metal headgates to two laterals and a sub-lateral are 1905 historic contributing structures. They are listed in Table 1 as Headgates #s 7, 8 and 12. The historic contributing headgates to the historic 'B', 'B-1' and 'C' Laterals are attached to circa 1960, poured-in-place, board-formed, concrete headwalls that replaced wooden headwalls. They allow irrigation water to enter 1.5' diameter corrugated steel pipes that dump water into laterals on the north side of the ditch rider road to convey water north for several miles, branching out into smaller ditches. The 'B' Lateral crosses under Bear Creek Road and US Highway 20 and continues north to the intersection of Nelson Road and the Powell Butte Highway. It serves the Bend Airport and some farms around it.

⁶⁷ Photo by Patricia Kliewer looking south into Bend Park & Recreation Department property on April 3, 2017.

⁶⁸ Photo by Patricia Kliewer, May 26, 2017.

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Screw assembly to operate the headgate to the 'B' Lateral looking east. .⁶⁹



Water flows under the north berm in a metal pipe to the 'B' Lateral, looking north toward Bear Creek Road.⁷⁰



Old headgates to 'C' Lateral and a ditch named COC 15 in a shared non-historic board-formed, concrete headwall with wings, looking north from center of canal bed.⁷¹

⁶⁹ Photo taken on April 3, 2017 by Patricia Kliewer.
⁷⁰ Photo taken on May 26, 2017 by Patricia Kliewer.
⁷¹ Photo by Patricia Kliewer, April 3, 2017

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'C' Lateral looking north from the canal is crossed by a pedestrian catwalk. A solar panel is on the pole.⁷²

The 1905 historic 'C' Lateral crosses under Bear Creek Road, US Highway 20, Alfalfa Market Road, McGrath Road and Stenkamp Road to serve small farms. It ends at a large pond and wetlands covering several acres near Terry Drive. The wheels and lift rod assemblies are historic, while the concrete headwalls replaced the original wooden headwalls about 60 years ago. It is likely that the original pipes were wood and, as they collapsed, were replaced with metal pipes, likely in the 1930s, therefore within the period of significance.

In addition to the two historic headgates to the 'B', 'B-1' and 'C' Laterals, there are seven historic headgates to ditches in the historic district that were installed to serve settlers during the period of significance. The ditches were indicated on maps drawn during the historic period. They all have screw assemblies, described for the 'B', 'B-1' and 'C' Laterals, with smaller 6" diameter pipes. Unlike the gates to the laterals, the metal slides or paddles are attached to the pipes, but some are not attached to a headwall. One has remnants of the original wood headwall. The slides allow water to flow into the metal pipes that run under the sides of the canal to the diversion boxes or directly into ditches. Some ditches are less than 50' long and run into irrigation ponds beside the canal, while others branch out to serve many patrons (Photos 5 and 20). It is the property owner's responsibility to maintain ditches beyond COID's points of diversion. The following photos are of three of the seven historic headgates to ditches.



A historic headgate (Headgate #5 in Table 1) to a ditch set in a rock headwall.⁷³

⁷² ibid

⁷³ Photo by Patricia Kliewer, April 3, 2017.

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Historic lift gate assembly (Headgate #6 in Table 1) with no headwall and crude concrete check that has been built up over time.⁷⁴



Sections of wood sit in the rocks at the base of this historic headgate. There is no headwall. In Table 1 it is Headgate #2.⁷⁵



Looking north from the center of the canal bed to historic headgate, COC 8/9, near Ward Road.⁷⁶ The handmade reinforcing-bar cage keeps rocks out of the pipe. It is attached to a worn concrete headwall. The pipe serves two ditches that branch out from a weir box north of the berm (Headgate #1 in Table 1).

Non-Historic Ditches

Eight non-contributing headgates to ditches are in the district. All of them were constructed after 1940 (outside the period of significance), as parcels were divided, and new owners needed more water. Although the wheel/screw lift assemblies are similar in design and function to the historic headgates, they are all attached to

⁷⁴ Photo by Patricia Kliewer taken on October 31, 2017, looking south.

⁷⁵ Photo by Patricia Kliewer, taken looking southeast on October 31, 2017.

⁷⁶ Photo taken by Patricia Kliewer on April 3, 2017.

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smooth, poured-in-place concrete headwalls. The newest gate (Headgate #21 in Table 1) was installed near Gosney Road in the last 15 years when a property owner south of the canal purchased water rights from COID. It is pictured below.



Looking south to newest headgate that delivers water through a pipe to a weir box and delivery pipe on the south side of the canal to serve a new patron, just southwest of the Gosney Road Bridge.⁷⁷

The other non-historic gates are like the gates pictured below.



A non-historic headgate, centered on the headwall, with wing walls angled into the canal (Headgate #11 in Table 1).⁷⁸



Looking north to a non-historic headgate (Headgate #20 in Table 1) that is caged with reinforcing bars to prevent rocks from clogging it.⁷⁹

⁷⁷ Photo by Patricia Kliewer, taken looking southeast on April 13, 2017.

⁷⁸ ibid

⁷⁹ ibid

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Historic Contributing Drops

Fifteen drops add character to the canal in the historic district, but also account for the majority of the change in elevation as it drops 50 feet in the three miles in the historic district. Photos of each of the drops that average about three feet tall are in the preceding table. They date from the original construction and widenings, 1905-1913. They are significant historic contributing features in the historic district and are described in the MPD.⁸⁰ They were planned in the 1905 drawings by Chief Engineer Charles Redfield as seen in Figures 25a-25e. The drops are functional elements in the canal. The drops accommodated the existing rough terrain and helped minimize excavation along the profile of the canal and the profile split the difference between the two sides of the canal. Most of the drops are a minimal 2 to 3', while others change elevation as great as seven feet in elevation change. The largest drop is at Bear Creek Bridge (Figures 25a and 25b). Smaller drops have minimal effect on the flow of water in the canal while the larger drops cause significant turbulence as the water flows from flatter upstream grades through the steep drops and into flatter canal grades downstream. The steep drops increase the flow velocity while the turbulence releases energy until the flow becomes more uniform downstream.

Summary of Alterations in the Historic District

One major alteration to the main canal has occurred since it was completed in 1913. A pair of berms replaced the historic wooden flume at the east end of the canal during the historic period. A recent minor alteration to the canal bed was when COID removed a small rock island just west of the Bear Creek Ranch Bridge. The repair is not apparent and is covered with rock that regularly washes down the canal. The Stearns Waste, a set of three water discharge gates and associated headwall were reconstructed in 1988 near Teal Road to replace a smaller historic headwall and set of three smaller screw-type headgates at the same location. About three undated rock checks in the canal bed and concrete crudely-spread over rocks just downstream of some headgates to facilitate the diversion of water into them are not visible when the canal is flowing, and they are unobtrusive and partially covered with rock and silt when the canal is dry.⁸¹ They replaced historic wooden checks at the same location that raised the water level to facilitate it's being diverted into gates. Eight headgates and concrete headwalls for a sub-lateral and some ditches are non-historic, but they are similar to the historic gates and operate in the same way. There are few alterations in the district, leaving the integrity at the highest level, given its 3.4-mile length and large scale.

CONCLUSION and INTEGRITY

The COCHD has an exceptional degree of integrity and is a good example of a Carey Act canal in Central Oregon. Its location has not been altered over time, and it continues to display the distinctive characteristics of the historic period canal construction, an irregular, open, trapezoidal- shaped canal, made with tightly compacted local rock and soil by horse teams, hand tools and custom-designed steam drills. It represents the function and appearance of the water conveyance system, during the historic period. The district is of sufficient length to portray the purpose, the construction challenges, materials, techniques, and methodology of construction. The headgates and pipes to 16 ditches, two laterals and one sub-lateral, and over a dozen irrigation ponds that serve irrigated and cultivated land next to the canal, illustrate how the canal functions to provide irrigation water to those with water rights. It also demonstrates the differences between land with and without appurtenant water rights.

The headwall and gates at Stearns Waste are only 30 years old, but they replaced similar historic structures at the same location. Stearns Waste is an example of how the irrigation district staff deals with emergencies that can develop if water goes out of its banks downstream. Burt Chute and the remains of the historic wooden flume are reminders of the substantial challenges posed by lava tubes and sudden drops in elevation along a canal that flowed by gravity and could not go around obstacles. The wooden flumes were leaky and required

⁸⁰ MPD, page F-49.

⁸¹ USGS 1962 Quadrangle Map and interviews with Richard Torkelson and David Turner on June 10, 2017.

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constant maintenance. All the historic wooden flumes that were on the main canal, including three flumes in the two miles east of the historic district, have been replaced with metal pipes or embankments. Burt Chute and the piers for the Bear Creek Ranch Bridge were formed by hand with concrete mixed on site. Workmen had to break up and remove massive amounts of rock, bridge caverns with wood and concrete flumes, and build huge 12-foot tall embankments. The high degree of integrity of setting, location, design, materials, feeling, association, workmanship of the historic district differentiate it from the remainder of the COC. The canal in the historic district is the only unaltered stretch that conveys the full volume of water (530 cfs) and displays evidence of all the practical solutions to the unique historic construction challenges in 1905, 1907 and 1913, and includes 27 sets of irrigation system structures.

The canal in the district has a distinctive lack of uniformity, an undulating bed, irregular side slopes, heavily rip-rapped or stacked rock embankments, cuts, 15 sudden drops and rapids caused by large rocks left in the bed as it drops 50 feet in elevation. The challenging rock, use of native materials, and practical, problem-solving methodology, resulted in the stretch looking and sounding like a river flowing naturally. The berms on the edge of the hills on the downhill side are distinctive and show the difficult labor the teams and men went to place the canal at the necessary elevation, so the system would flow for the entire length that was planned. It retains the feeling and association with the surveyors who determined its exacting route, so it could flow entirely by gravity and serve all the settlers and patrons. The canal varies greatly in width and depth, reflecting the engineers who calculated its necessary volume so that it would carry the water needed to irrigate future farms for the length of the canal, the superintendents and supervisors who adapted plans to meet conditions encountered in the field, specialists who blasted tons of rock with specialized mining equipment ordered the previous year to speed up work on the Pilot Butte Canal (PBC), and the hundreds of laborers with horse teams who dug, scraped, and moved thousands of loads of rock and soil, while trying to meet construction deadlines that were set in contracts between the canal developers and the State of Oregon.

The district has the widest variation of terrain and style and the tallest berms on the canal. The variations demonstrate that a narrow and deep canal with fast volume in a sloped area can carry as much water as a wide, shallow canal with a slower flow in flatter terrain. The tremendous variations in the district as seen in the survey data show that the main canal in the nominated district displays all the designs and methodology found throughout the entire canal: irregular winding rocky portions with large built-up embankments on the downhill side; portions with vertical sides and others with sloping rip-rapped and stacked rock sides; smooth and sandy level portions; portions with two cuts and no embankments; portions with and without a ditch rider road atop the embankments; portions with short embankments used to discard the materials taken from the bed; portions that were blasted and portions that were scraped.

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8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A Owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions.)

EXPLORATION AND SETTLEMENT

AGRICULTURE

Period of Significance

1905 – 1937

Significant Dates

1905: Canal completed in Historic District

1908: Central Oregon Canal completed to Powell
Butte

1914: Flow increased in system to serve Powell
Butte due to new North Dam and North Canal

1921: Water right holders become Central
Oregon Irrigation District (COID)

1937: Deeds to unsold land in Segregation
List 6 are returned to Federal Government

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation (if applicable)

N/A

Architect/Builder

Wiest, Levi David, Civil Engineer, Oct. 1901 –
Feb. 1904

Kelley, John G., Hydraulic Engineer, Feb. 1904 –
June 1904

Redfield, Charles Monteith, Irrigation Engineer,
April 1904-1921

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Period of Significance (justification)

The period of significance for the COCHD begins with the 1905 construction of the main canal and associated irrigation water delivery system structures in the historic district. Settlers began purchasing land in the historic district in 1909. The canal was widened, and turnouts/headgates, laterals and ditches were constructed as land was sold to settlers. The period of significance ends on June 30, 1937, when the State of Oregon returned to the federal government deeds to eight unsold 40-acre parcels that are in and adjacent to the historic district. Charles H. Martin, Governor, on behalf of the State Reclamation Commission, relinquished and re-conveyed the deeds to 8,829 acres of unsold land in Deschutes County that had been in Segregation Lists 6 and 19, to the United States of America. (The two Segregations included 84,707 acres.) By 1937, settlers had purchased all the irrigable and farmable land along the entire canal, and agriculture and settlement were established in the area.

Criteria Considerations (explanation, if necessary)

N/A

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and applicable criteria considerations).

The COCHD is significant at the local level under Criterion A, in the areas of Exploration and Settlement and Agriculture, with a Period of Significance of 1905 (initial construction) to 1937 (end of land sales along the nominated segment). The historic district meets the general and specific registration requirements set forth in the Multiple Property Documentation, Carey Act and Reclamation Acts Irrigation Projects in Oregon 1901-1978, Oregon (NRIS No. MC 100001302). It represents the extensive, ambitious open canal system that conveyed water by gravity between the Deschutes River in Bend and the Powell Butte area. It brought about widespread change in the arid region. The COC delivered irrigation water to 25,257 acres that enabled profitable agriculture and brought a surge of settlers to the area. It substantially affected settlement, agricultural production, population growth, and the commercial and economic development of Alfalfa, Powell Butte and Bend. The downstream cities, particularly Alfalfa and Powell Butte, significantly benefitted from the construction of this segment of canal, as without the segment the towns would not exist as the canal was integral to the settlement and growth of those communities. The for-profit development company's successful, nationwide, private, marketing campaign attracted thousands of settlers to the arid high desert and resulted in the sale of most of the land in their segregations. The historic district is a segment of the COC, one of two canals developed by the Central Oregon Project that was the largest and most successful Carey Act irrigation and settlement project in the Northwest.⁸² The nominated segment was constructed, and land around it was sold, as a for-profit commercial enterprise by the Deschutes Irrigation and Power Company, under contracts with the State of Oregon under the Carey Desert Land Act. It is directly associated with the provision of irrigation and development of agricultural output of all areas downstream of the nominated segment. The contract between the company and the State required the developers to reclaim the land by delivering irrigation water to the highest point on each parcel that had a water right. The nominated segment is a representative portion of the main canal with a concentration of secondary structures that adequately represent the irrigation project's function and historical significance. The segment was difficult, time consuming to build due to the extraordinarily difficult volcanic terrain and was crucial for the entire canal to allow adequate water to flow to the remaining 35 miles of the 47-mile-long canal. Building of this difficult segment was overcome not through novel engineering, but through a combination of large amounts of man and horse power and the deployment of a variety of typical approaches, including blasting, scraping, digging, and fluming, all of which had to be completed within a limited period set by contract with the State of Oregon. Due to the difficulty and short timeframe, this portion of the canal was originally underbuilt, and the segment was a bottleneck on the canal until 1914 and had to be relieved by expansion twice during the period of significance.

⁸² Michael Hall, *Irrigation Development in Oregon's Upper Deschutes River Basin, 1871-1957, A Historic Context Statement.*

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Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

Built in 1905, the COCHD is significant at the local level under Criterion A, in the areas of Exploration and Settlement and Agriculture. The segment of the canal meets all the general and specific registration requirements detailed in the Multiple Property Documentation, Carey Act and Reclamation Acts Irrigation Projects in Oregon 1901-1978, Oregon. The segment is in its original location, is of sufficient length, and displays a high-degree of historic integrity that clearly communicates its purpose and function to convey irrigated water downstream to Alfalfa and Powell Butte.

**CENTRAL OREGON CANAL HISTORIC DISTRICT
MEETS REGISTRATION REQUIREMENTS IN MPD**

The COCHD is nominated under the Multiple Property Document Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 (MPD) for local significance under National Register Criterion A in the areas of Agriculture and Settlement and Exploration. The COCHD meets all the registration requirements set forth in the Multiple Property Document relevant to historic districts composed of a principal resource and accompanying appurtenant secondary resources.

COCHD as Historic District⁸³

The COCHD is classified under the MPD as a Historic District, meeting the MPD's definition of such resources; within the larger COC, the segment represents a significant, distinguishable entity comprising a primary conveyance feature (COC), and a number of secondary conveyance features (laterals/ditches, flume [present, in ruin], chutes/drops) and flow control devices (headgates, wasteway) features that together illustrate both the unique character of the canal in this area, and the features and function of the water delivery system of which the canal is central. The adequacy of the length of the nominated segment is determined by two factors; the relative importance of the principal resource (canal), and the number of secondary features present. The COCHD centers on the COC, one of two canals that form the Central Oregon Project, and considered to be of central significance to the overall system. The nominated area includes a variety of secondary elements, including both secondary conveyance features and flow control systems, fully sufficient to illustrate the function and operation of the larger canal system. Beyond this, at 3.4 miles in length, the COCHD is the longest segment of irrigation canal yet nominated in the State of Oregon. The National Register-listed PBCHD, by comparison, measures 1.4 miles in length, and the Pilot Butte Canal: Downtown Redmond Segment Historic District, also listed, measures 1.3 miles in length.

Registration Criteria⁸⁴

Per the requirements of the MPD, the COCHD represents a segment of the larger COC, nominated under National Register Criterion A at the local level with significance in the areas of Agriculture and Exploration/Settlement. The COCHD belongs to the historic context "Carey Desert Land Act Projects in Oregon, 1901-1950," being constructed directly as a result of the Carey Act implementation in Oregon (see pp. 48-92). It is directly associated with the provision of irrigation and development of agricultural output of all areas downstream of the nominated segment, by virtue of its crossing of a very difficult area of volcanic terrain, without the construction of which the canal could not have extended to the east. Relatedly, the provision of the irrigation waters to these areas resulted in the "substantial impact of Oregon's landscape," resulting in the settlement of the farming communities of Alfalfa and Powell Butte (see pp. 92-95), and converting once arid, marginal lands into the highly productive agricultural lands they are today.

⁸³ See page F-35 of the *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 [MPD]*.

⁸⁴ See MPD, p. F-35.

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Registration Requirements⁸⁵

The COCHD meets the General Registration Requirements applicable to all properties nominated under the MPD. The district represents a significant segment of the COC, a portion of the Central Oregon Project, which is a Carey Act project, entirely located within the State of Oregon, and which provided the historical and physical data that informed the development of the MPD, and is therefore exempt from the requirement of a detailed, separate context appended to the MPD; the property is defined as a historic district possessing one or more defined property types; the COCHD belongs to a defined Period of Significance (see p. 38) within the Carey Act-related historic context, and retains sufficient integrity to convey its significance (see pp. 35-36), with particular note to the aspects of "setting," of which topography is the central element (as it relates to significance), and "workmanship," to which the many instances of rocks exhibiting blasting holes within the district attest.⁸⁶

The nominated segment represents the single most challenging element of the canal to construct, due to the extraordinarily difficult volcanic terrain, was the portion of the canal that took the longest to construct, and was overcome not through novel engineering, but through a combination of dogged determination, application of large amounts of man and horse power, and deployment of a variety of typical approaches, including blasting, scraping, digging, and fluming, all of which had to be completed within a limited period of time set by contract with the State of Oregon. Because of the extreme difficulty and short timeframe, this portion of the canal was originally underbuilt, representing a bottleneck that had to be relieved by expansion twice during the period of significance.

In sum, the COCHD meets or exceeds all relevant registration requirements set forth in the MPD, exhibiting high integrity, a clear ability to convey its historical association and significance, and drawing significance beyond and in addition to that conveyed to the larger system of which it is a part.

INTRODUCTION TO THE CENTRAL OREGON PROJECT

Overview

Construction of the PBC and the COC and the sale of land around them were the facets of the Central Oregon Project that changed the history of Central Oregon. The Deschutes country was relatively unknown and unsettled when the irrigation project began as a fortune-making idea in 1900. The Pilot Butte Development Company meticulously explored, surveyed, and mapped the plateau in the high desert east of the Deschutes River and south of the Crooked River to determine opportunities for a vast irrigation system. It considered the potential for income to investors by reclaiming and selling the land that could be irrigated. By providing the primary means of watering the arid land for agriculture and by bringing in a vast amount of capital, the Pilot Butte Development Company (1900-1904) and its successors, the Deschutes Irrigation and Power Company (1904- October 1910) and the Central Oregon Irrigation Company (October 1910-1921), constructed Central Oregon Project with private funding under an agreement with the State of Oregon under the Carey Act.⁸⁷ The irrigation project was the largest irrigation project in the Northwest, irrigating 140,714 acres.

⁸⁵ MPD, p. F-36.

⁸⁶ MPD, p.F-37, "C. Setting," and "E. Workmanship."

⁸⁷ Michael Hall, Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, A Historic Context Statement, 1994, pages 19-30.

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Photo taken in early 1905 of laborers and their tent camp along the Bend stretch of the Central Oregon Canal.⁸⁸

The nominated segment of the COC was blasted out of rock that covered lava tubes and caverns that became apparent when the surface rock was removed. It was a critical stretch that was the most time consuming and physically challenging to construct and required a huge investment of men and horse teams. Work on the nominated segment of canal began in November 1904 when crews begin to clear the route for the first 10 miles with horse teams. On February 10, 1905, the company moved men and horse teams from the PBC to augment the crews on the COC.⁸⁹ The March 10, 1905 *Bend Bulletin* reported that 400 men and 250 horse teams were working between six and ten miles from the river (the historic district is between miles 7.5 and 11.5) and the canal was being excavated and rock work was going well. *The Bend Bulletin* on July 14, 1905 said, "Several leaks have developed along the Central Oregon work, where rock was shattered by blasting, opening crevices to subterranean chambers. These are generally stopped by paddling and tamping." Crews had been working on the same two miles of canal in the hills and rock for nine months and were still 12 miles east of Bend. The huge crews were aided by having the specialized rock drilling equipment purchased for the rocky portion of the PBC to speed the process of blasting rock and steam shovels to scoop up broken rock and load it in wagons.

While most of the gradually-narrowing canal traverses a relatively flat plateau with little rock, this stretch is the hilliest, rockiest and most uneven and has lava tubes and sudden drops in elevations that were bridged by Burt Chute and a wooden flume. It took a year to complete the segment. But, to meet demanding construction schedules, set by the State with a shortage of laborers, it was under-sized. That resulted in its being a bottleneck in the system, and it was therefore widened twice, in 1907 and 1914, to allow the delivery of adequate water to settlers in Powell Butte. The accomplishment of moving tons of rock, building the 305'-long wooden flume, the 215'-foot-long concrete Burt Chute and constructing miles of huge embankments on the downhill sides, exemplifies private enterprise and laborers overcoming the challenges presented by the region's geology. It reflects the construction methods and materials used throughout the irrigation system. It took an extraordinary amount of private capital, exceptional expertise in the utilization of technology, and enormous labor and horse-power to build the canal through the district. Farmable land in the historic district was sold to settlers by the development companies under a contract with the State of Oregon under the Carey Act, beginning in 1909. By 1937, settlement of irrigable and farmable land in the district was complete; some poor land with no water rights remained in public ownership.

Summary of Financial Considerations

The project was a successful, for-profit, commercial enterprise under the Carey Act. It brought significant private investments from Central and Eastern United States capitalists and railroad men. The project was

⁸⁸ Photo from Deschutes County Historical Society Collection.

⁸⁹ "To Crooked River," (*The Bend Bulletin*, February 3, 1905), 1. Indicates COC just started at this time, with the breaking up of ground; "Canal Is Finished," (*The Bend Bulletin*, February 17, 1905), 1. This article indicates work completed to the Crooked River on February 10; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, February 4, 1931), n.p. Brogan states February 9 as the completion date.

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directly related to the founding of Bend, Redmond, and Centrallo (later called Deschutes Junction), and the settlement and economic enhancement of Alfalfa and Powell Butte. The companies aggressively marketed the project and attracted settlers from across the United States and other countries to buy the reclaimed land, and establish new churches, schools, homes, ranches, farms, and businesses. The private funds were used to build the irrigation system that was worth \$3 million when it was transferred to users as the COID in 1921. By linking the investment in the irrigation company with corporate goals to attract business owners and farmers; sell the irrigated land; expand the agricultural sector; plat and develop Bend and Redmond, and the town of Centrallo between them; and to deliver water to the far corners of the plain; the project transformed the central Oregon high desert. Investment capital flowed into the region from the irrigation company as the canal system was built, bringing value to the lands, and flowed back to the company as settlers purchased lands and bought water. Investment flowed to the purchasers of city lots as the company invested in businesses, buildings, and urban infrastructure and as products and services were bought and sold. The region experienced new economic opportunities, population growth, and prosperity. In addition, development of these communities led ongoing economic expansion, which brought the local area into the greater economy of Oregon and the Pacific Northwest.

The Central Oregon Project

Michael Hall wrote in his book, *Irrigation Development in Oregon's Upper Deschutes River Basin, 1871-1957, A Historic Context Statement*, "From 1878 to 1902, irrigation expansion became a critical issue in the West. Eastern speculators and the region's residents reclaimed large portions of the 'Great American Desert' to create an economic base to foster settlement. Almost none of the hundreds of irrigation companies formed with eastern capital in the 1870s and 1880s survived beyond 10 years. Their failures resulted from not understanding that expansion of agricultural development required storage reservoirs and sophisticated dams and canals."⁹⁰

One successful for-profit project funded with eastern capital was the Central Oregon Project. It included the construction of the 47-mile long COC, the 22-mile long PBC, the 1-mile North Canal, and the North Dam (sometimes later referred to as the North Canal Dam) on the Deschutes River. The canals it built were not sophisticated structures, but were adequate, and it did unexpectedly need a large, expensive dam. However, the investment in the project covered the cost of the unanticipated structures.

The Central Oregon Project began with Alexander Drake's vision of a vast irrigation system on the high desert plateau, east of the Deschutes River, in 1900. Most settlers had received water by 1914 when the COC reached Powell Butte. In 1921, the for-profit Central Oregon Irrigation Company's operation and maintenance responsibilities plus the assets were transferred to the water users as a district. The project ended in 1937, when the deeds to 8,829 acres of unsold land in Deschutes County that had been in Segregation Lists 6 and 19 were returned to the federal government. On June 30, 1937, Charles H. Martin, Governor, on behalf of the State Reclamation Commission, relinquished and re-conveyed the deeds to 8,829 acres of unsold land in Deschutes County that had been in Segregation Lists 6 and 19, to the United States of America (the two Segregations included 84,707 acres).

Until 1912, the two large canals shared a diversion point at the Deschutes River as well as the first few miles of huge wooden flume that crossed over a volcanic rock flow. The PBC was finished in February 1905, just after the COC was begun. In 1912, the PBC was split from the COC and diverted water from the Deschutes River at the new North Dam in Bend. The PBC runs north through Bend and Redmond and serves Terrebonne and then turns east for the last five miles to its terminus at the Crooked River near Smith Rock State Park. The company did not expect to need the dam that allowed the PBC to have its own diversion gate off the river and the North Canal and splitting the two canals increased the cost of the project.

⁹⁰ Michael Hall, *Irrigation Development in Oregon's Upper Deschutes River Basin, 1871-1957, A Historic Context Statement*, p.

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Crew building the shared diversion structure at the Deschutes River for the two canals, ca. 1903.⁹¹

State Engineer John Dubuis and local civil engineer Levi D. Wiest designed the North Dam and North Canal and Charles M. Redfield managed their construction. They were built to solve water volume shortages on the two canals, especially in Alfalfa and Powell Butte. The HAER: OR-61-C states, "The North Canal Dam and diversion canals constitute one of the most historically significant irrigation engineering complexes in Central Oregon. The complex is associated with important developments in agriculture as well as with locally prominent investors and pioneer irrigation companies in the Bend area. The North Canal Dam (1912) is the largest dam on the Deschutes River in the Bend area and is the oldest dam built for irrigation. When constructed, the 33-foot high, 200-foot wide concrete arch dam was a significant engineering feat. The canal was the primary influence in the founding of Redmond and contributed to the growth and stability of other communities in the area."⁹²

Today, the COC continues to divert water at its original 1903 diversion point at the Deschutes River at the southern end of Bend and runs east to the Dry River, then north through Alfalfa and Powell Butte, then circles northwest toward the Crooked River and Smith Rock State Park, ending near the terminus of the PBC. The two canals frame the high desert plateau with the Deschutes River on the west, the Crooked River on the north, the Dry River and Powell Buttes on the east and the Newberry Crater National Monument on the south. The plateau is more than 30 miles in each direction and consists of 900 square miles. The irrigation system was to serve about half of it, 227,383 acres, that had potential to be cultivated.⁹³ Thousands of acres are unfarmable because they are covered with thin topsoil over rock or have large amounts of rock outcroppings or are not irrigable. The amount of land sold to settlers, cultivated and irrigated by the system amounted to 139,000 acres in November 1913. The COC is the larger of the two canals in width, length and volume of water conveyed and it took the longest to construct (Figures 1, 7 and 8).

Alexander Drake

Alexander Drake saw the opportunity to develop a vast irrigation system when he visited the area in 1900 (Figure 24). Thirteen years later, the Central Oregon Irrigation Company manager described what Drake saw. "The land slopes gently from the Deschutes River and consists of plain and slightly rolling country. It falls toward the north at the rate of about 30 feet per mile. It will be readily seen that these features present ideal conditions for an irrigation system."⁹⁴ The highest elevation is at the diversion gate at the Deschutes River at the southwest corner of the plateau. The lowest point is at the Crooked River, an altitude difference of 701', near the northeast corner of the plateau. The Pilot Butte Development Company hired surveyors and engineers to explore the area and to create a detailed topographic map of the plateau in 10-foot contours, to map out the canals and delivery systems to serve the purchasers of irrigable and saleable land. It was necessary to locate the canals along the highest contours possible to have the water flow gradually downhill

⁹¹ Photo from Deschutes County Historical Museum Collection.

⁹² HAER: OR-61-C, p. 1.

⁹³ Bend Bulletin Newspaper, July 30, 1913, pp. 1, 21, 22.

⁹⁴ *ibid.*

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but remain high enough to fill laterals and ditches. "By reason of the light rainfall, the lands of this part of the country, like the greater portion of the lands west of the Rocky Mountains, are classed as 'arid' and for many years it was generally supposed that they were almost worthless, but it is found that when supplied with additional moisture – by irrigation – they are among the most fertile of any on earth, and they produce crops of such abundance as to almost unbelievable."⁹⁵ The company describes the "disintegrated lava and volcanic ash" soil as rich and "practically inexhaustible."

Drake made four filings for water rights on November 5, 1900. Planning, surveying, engineering, and financing, along with trips by horse-drawn wagon to Salem and eastern states to form coalitions with state and federal politicians began right away. The State of Oregon approved its Carey Act enabling legislation on February 28, 1901. The Pilot Butte Development Company entered into a contract with the State of Oregon on May 31, 1902 to reclaim 84,707.74 acres under the Carey Act. By 1903, the diversion point and the canals were under construction. The two canals shared an immense wooden flume at the diversion structure at the eastern bank of the Deschutes River south of Bend until they split in 1912. The flume was enlarged and repaired several times, but it was always inadequate. In 1909, while the flume at the diversion point was shared, the incomplete COC was furnishing water to 56,000 acres. In 1912, a new dam and connecting canal, the North Canal, were completed at the north end of Bend to serve only the PBC. The Intake for the COC remained in the original location.

The PBC was built first and was largely completed on February 10, 1905. The PBC was built with hard labor by men and horse teams that worked well in areas with little volcanic rock. But specialized construction equipment was ordered at the end of 1904 to more efficiently blast through the challenging solid basalt lava rock flows in the Bend area and move thousands of tons of rock. That specialized equipment and the techniques learned by constructing the PBC were applied to the more extensive project, the COC. Crews that worked on the last five miles of the PBC and the new equipment they were using were brought to Bend in February 1905 to join the crew already working on the COC south of Bend near the flume.

During 1905, the COC was constructed through the historic district. By 1907, the COC was 28 miles long and reached the community of Alfalfa and the Dry River. In 1908, the canal was 45-miles long and was completed to the Powell Butte community, but it did not irrigate the entire area that was required to be irrigated by the company's contract with the state and promised to the settlers, due to bottlenecks in the system. In 1912, the PBC's intake was moved to the North Dam and the intake with COC was no longer shared. The laterals on the COC were nearing completion and water flow in the main canal and laterals was increased. But the water volume was still inadequate. In 1913, the main canal through the rock east of Bend, including in the nominated historic district, was determined to be too small and it was enlarged again the following year. Most of Powell Butte was finally served in 1914, although settlers complained about the volume until the new COID addressed the problems after 1921.

The COC, this mighty 47-mile long canal, today serves the southern and eastern half of the high desert plateau. The main canal's completion in 1908 and the delivery system's completion in 1914 spearheaded the settlement of southern and eastern Bend and continued the settlement in the older communities of Alfalfa and Powell Butte. This construction and operation changed the history and appearance of these communities more than any other event. Water flow through the canal initiated the development of agriculture on a large scale in the Deschutes Country.

The Central Oregon Project was the second contract in Oregon under the Carey Act. The Pilot Butte Development Company (1900-1904) and its successors, the Deschutes Irrigation and Power Company (1904-October 1910), and the Central Oregon Irrigation Company (1910-1921) were successful because they used experienced financiers, encouraged colleagues to plan and construct the railroad from the Columbia River Gorge to Bend in 1911 that further facilitated the influx of settlers and goods, and implemented an aggressive national advertising campaign. They had offices in Prineville and Portland and actively participated in an

⁹⁵ ibid

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agricultural experimental farm and sponsored competitions among the settlers to learn about the possibilities of growing crops and raising livestock in the high desert. They formed political coalitions with the Governor, the Oregon Land Board and other politicians. They brought in experienced civil engineers and construction supervisors to find solutions to the challenges presented by the construction of the canals. Their local leadership and practical experience on similar projects, such as founding towns and railroad building, also contributed to the project's success and the settlement of Central Oregon. The PBC's history and its significance and impact on Central Oregon and the associated founding and development of the cities of Bend and Redmond was documented in the PBCHD nomination that was listed on the National Register of Historic Places in 2016. Both canals, along with the North Canal, and North Dam, were one project and together are integral to the success of the Central Oregon Project.

Robert Morgan, revered irrigation engineering historian, said: "The destiny of the human race has been influenced by irrigation water ever since man's first attempts at agriculture in the dawn of civilization."⁹⁶ Alexander M. Drake stood at the forefront of a vast wilderness and had the vision to build the Central Oregon Project for the settlement and farming of the Deschutes Country. The COC brought historic changes to the region from that day forward. The phenomenal growth of Bend began in 1904 with the initiation of the large irrigation project and the platting of the town, followed by substantial settlement and significant agricultural growth. The great investment in the Central Oregon Project by investors who saw the promise of the region now known as Central Oregon was critical to its success.

SIGNIFICANCE OF THE NOMINATED SEGMENT OF THE CENTRAL OREGON CANAL

Significance of the Nominated Segment

The 3.4-mile long nominated historic district was a critical and difficult section of the canal to construct. It needed to be enlarged in 1907 and in 1914 to allow the irrigation company to fulfill its contract and deliver water necessary to flow to the end of the irrigation system at Powell Butte. Even though the segment took nearly a year to originally construct, crews did only the minimum excavation each time they worked on the segment, because it was expensive and time consuming to blast through the rock and build the huge berms that were necessary on the downhill edge of the sloped terrain and to build flumes across low points and caverns. The rock in the nominated district presented a great construction challenge and reflects the historic construction techniques used. Because of the toughness of the terrain and the exceeding difficulty in removing the volcanic rocks, characteristics of the district reflect the type of terrain and the construction methods which prevailed there. It took an extraordinary amount of capital, exceptional expertise in the utilization of technology, and enormous man and horse-power to build the canal in this location, three times. It was the only stretch that had to be enlarged.

Today, the 1904-1914 labor on the COC is easily recognized and observed in the nominated stretch. The district includes nearly all the portion of the now 47-mile-long canal that is on the side of a slope. The terrain before and after the district is relatively flat. It is distinctive for the tall berms in rolling terrain. The canal bed is the widest and deepest in the system. The immense accomplishment of constructing this section exemplifies how ditch crews overcame the challenge presented by the region's geology. It required great tenacity, ingenuity, technology, labor and money. There were delays caused by a 500' collapse in the intake flume in 1905 that took laborers away from the work of constructing the canal in the historic district. Also, in 1905, laborers left their canal construction positions in this location to work instead on the Columbia Southern irrigation project that offered better wages. The canal was built too small in this location and had to be widened twice, because the company pushed the crews too hard due to the desire to meet state deadlines, and to move on to the east where the project was less difficult, and to show more progress to the state inspectors.

⁹⁶ Morgan, Robert M., *Water and the Land: A History of American Irrigation*, (Fairfax, Virginia: The Irrigation Association, 1993), 3.

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The qualities of design, materials, and workmanship reflected by the flowing water are extraordinary. Other than the Powell Butte Siphon made with a redwood pipe which was designed and supervised two years later by Chief Engineer Charles M. Redfield, and constructed by a contractor, all the canal was built the same way as this portion in the historic district. The greatest challenges were encountered in the historic district. As they moved east, the crews encountered less rock and flatter terrain, and the canal became smaller and easier and therefore faster to construct. The COC at this location is an assemblage of man-made and natural features joined together that illustrate the 1905-1937 construction and settlement experience.

PURPOSE OF THE WATER DELIVERED BY THE CENTRAL OREGON CANAL

For 112 years, under the 1900 water right to the Pilot Butte Development Company, the COC has delivered irrigation water from the Deschutes River to reclaim (irrigate) arid land between Bend and Powell Butte and around the compact community of Alfalfa. The canal flows continuously for six months during the irrigation season, generally April 15 to October 15, depending on the weather, plus a stock runs a few days every five to six weeks during the late fall, winter, and early spring.⁹⁷ Typically, flows vary by the amount of irrigation water needed by farmers due to the weather, the snowpack on the Cascade Mountains to the west, and the stage of crop development.

Water conveyed by the COC has a variety of beneficial uses. It irrigates residential, industrial, and commercial landscaping in urban areas and crops in the rural areas, such as potatoes, onions, and horticultural plants. Primary crops are hay for baled animal feed and grass pastures for livestock. The canal provides water to the Bend Airport, urban trailer parks, urban residences, hobby farms north and east of Bend, commercial farms and cattle ranches, recreational ponds and reservoirs, wildlife habitat ponds, a golf course, and residential landscaping. Pastures from 0.5 to 80 acres in size for goats, sheep, horses, llamas, alpacas, and cattle dot the landscape. It fills cisterns and stock ponds and irrigates school lawns and play fields.

This canal is distinctive in the high desert in that it fills many large public and private recreational ponds and lakes, in addition to the usual irrigation ponds. Also, several parcels have multiple irrigation ponds and many of the irrigation ponds cover more than an acre.

THE DESCHUTES RIVER and UPPER DESCHUTES REGION'S POTENTIAL

Post Frontier Period, 1883-1917

Schwantes says that, "During the years bracketed by the completion of the Northern Pacific Railroad in 1883 and the U.S. entry in the First World War in 1917, the Pacific Northwest moved inexorably into a post frontier world ... The generation of men and women who came to the West in covered wagons ... passed from the scene. They had committed to building a new society in the wilderness; those who followed them were also builders — of cities, transcontinental railroad lines, [and] irrigation works ..." ⁹⁸ These 'builders', Eastern capitalists, had accumulated wealth from investments in railroads, oil and gas, lumber, banking, and other enterprises. They sought to further amass capital, and, at the turn of the century, the Deschutes Country offered the last region in the nation with seemingly unlimited resources for those first to exploit its water, land, and timber.

Portland *Oregonian* editor Harvey W. Scott observed similar changes occurring in Oregon as those described by Schwantes. Scott wrote about changes taking place over the entire Northwest. In 1901, Scott told an audience, "Under operation of forces that press upon us from contact with the world at large, and under the law of our own internal development, we are moving rapidly away from old conditions. Pioneer life is now but a memory; it will soon be but a legend."

⁹⁷ COID website, www.coid.org.

¹²⁵ Schwantes, Carlos. *The Pacific Northwest: An Interpretive History*, 287; Dennis, Matthew, "Natives and Pioneers," (*Oregon Historical Quarterly*, vol. 115, no. 3), p. 288. 1996

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The U.S. Department of the Interior in 1890 reported the irrigation potential of the Deschutes River and the adjacent lands: "It appears not improbable ... that a great irrigating system can be profitably constructed along this river. There seems to be no question as to the permanence of the water supply, the fertility of the land when irrigated, and the favorable character of the climate." The report's author, Frederick H. Newell, would become chief engineer of the U.S. Reclamation Service upon its creation in 1902, and its first director in 1907.⁹⁹

F.F. Henshaw, John H. Lewis and E.J. McCaustland were three outstanding engineers who served in state and federal roles in which they conducted research on the Deschutes River that aided agencies in managing its waters over the first two decades of the twentieth century. Their research a century ago pointed out the river's irrigation and power potential:

"In several respects [the] Deschutes River is unique among rivers of the United States. Its natural flow is remarkably constant; its headwaters afford reservoir sites sufficiently large and so distributed that the total flow of the river may be utilized both for irrigation and for power; the irrigable lands in the valley, aggregating 300,000 to 500,000 acres, are so situated on a plateau in the upper part of the basin that the total flow of the upper river and its principal tributaries may be utilized for irrigation; and below the irrigable area the river flows in a deep canyon having a fair slope and affording excellent opportunities for power development, a reliable water supply being assured by the return water from the irrigated areas above and by the lower tributaries of the river. The future of this exceptional combination of abundant water supply, large area of irrigable land, and great water powers will transform the Deschutes Valley into a region whose agricultural importance will be enhanced by the many hydroelectric plants that will furnish power for local use or for transmission to distant power markets."¹⁰⁰

At the turn of the twentieth century, Central Oregon, known then as the Deschutes Country, was the most remote region in the nation. It presented opportunities to capitalize on the Deschutes River, promising lands for agriculture, and timber from immense pine forests. Americans and new immigrants had been spurred westward by visions of productive farmlands, riches of gold, and vast stands of timber. A major factor in westward expansion was the building of transcontinental railroads. By 1900, Portland, Oregon, Seattle and Tacoma, Washington, were served by the railroads, and trunk and other lines linked smaller communities to the social and economic fabric of the nation.¹⁰¹ The Deschutes Country, however, was not connected by rail to the rest of the nation.

George Palmer Putnam, of New York publishing house G.P. Putnam's Sons, *In the Oregon Country*, "The map of Oregon had long shown a huge area without a single railroad crossing it. This rail-less land was Central Oregon, the largest territory in the United States without transportation."¹⁰² In 1900, the Columbia Southern

⁹⁹ Newell, F. H., *Report on Agriculture in the United States at the Eleventh Census: 1890*, (Department of the Interior, Census Office, Washington: Government Printing Office, 1894), 207. Newell became the first director in 1907 when the Reclamation Service broke away from the U.S. Geological Survey (USGS) to become a separate agency under the Department of the Interior.

¹⁰⁰ Henshaw, F.F., John H. Lewis and E.J. McCaustland, *Deschutes River, Oregon and Its Utilization, Water Supply Paper 344*, Prepared in Cooperation with The State of Oregon, John H. Lewis, State Engineer, (Department of the Interior, U.S. Geological Survey, Washington: Government Printing Office, 1914), 9. 'Introduction' by N.C. Grover; "Geological Survey Report on the Deschutes River," (*The Bend Bulletin*, November 25, 1914), 1. The authors were District Engineer F.F. Henshaw, State Engineer John H. Lewis and their colleague E.J. McCaustland. Detailed plans were presented for the development of water power at 18 sites along the river. The question of irrigation was presented.

¹⁰¹ Culp, Edwin D., *Early Oregon Days*, (Caldwell, Idaho, The Caxton Printers, 1987), 107. Culp writes, "In 1883 the Northern Pacific Railroad reached Portland by using the Oregon Railway and Navigation (OR&N) tracks from Wallula Junction to Portland, a line that followed the south side of the Columbia River. At Portland, the NP had previously built its own right-of-way to Tacoma and Seattle ... In 1887 the NP again reached Tacoma and Seattle, this time by continuing its track-laying program entirely in Washington Territory ... The OR&N was soon to become property of the Union Pacific (UP), a line that would be competitive with the NP."

¹⁰² Putnam, George Palmer. *In the Oregon Country*, (New York: G.P. Putnam's Son, 1915), 54.

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railroad arrived in the small city of Shaniko, sixty-nine miles south of Biggs, Oregon, on the Columbia River. Shaniko became the connection point between the Deschutes Country and the outside world.¹⁰³ It was a twelve to fourteen hour and an eighty-mile trip from Shaniko by stage to Prineville. From Prineville, the trip was several more hours to the Bend area. Urling C. Coe, M.D., one of Bend's first doctors, described the land he first saw in January 1905. "This vast unfenced area ... was the largest area in the United States without a railroad, and the last frontier of the thrilling and romantic Old West."¹⁰⁴

The Carey Act and the Settlement of the West

"Large-scale settlement of irrigated lands in the twentieth century marked the final phase of a process that began when immigrants first traveled west along the trail to Oregon," according to Carlos Arnaldo Schwantes. In his comprehensive history of the region, *The Pacific Northwest: An Interpretive History*, he writes that "[b]y the turn of the century, people who still dreamed of acquiring a farm from Uncle Sam placed their faith in the power of irrigation to transform the region's countless parched acres into desert gardens."¹⁰⁵

The new approach to encourage settlement of the West was for the federal government to cede up to a million acres of land to each of the ten arid states, if they caused the land to be irrigated, settled, and cultivated. The Carey Desert Land Act of 1894 (Carey Act) was the process by which the federal government, acting through the State, agreed to make available up to 160 acres of arid land to a settler who made application for such a tract, settled upon it, and improved at least one-eighth of it into irrigated acreage. The state was responsible to the Secretary of the Interior to have a map and a plan thoroughly sufficient to irrigate and reclaim the designated land to raise ordinary crops, and to bring about the settlement and cultivation of the lands.¹⁰⁶

Oregon accepted the Carey Act process with enabling legislation on February 28, 1901. The legislation made it State policy that Oregon's arid land should be reclaimed and settled. The State was to rely completely upon private development corporations to bring about reclamation and settlement of the arid lands.¹⁰⁷ At the end of 1904, twenty-three Carey Act segregations (potential project areas) had been created by the State under the Carey Act, but only four of the twenty-three had been approved by the Secretary of the Interior. Three of these four Oregon irrigation projects were in the Deschutes Country.¹⁰⁸ The three projects were the Pilot Butte Development Company, the Three Sisters Irrigation Company, and the Deschutes Reclamation & Irrigation Company.

Irrigation in the Deschutes Country had begun before the turn of the century and ventures were of two types. One was the cooperative organizations of land owners established to irrigate their farms and ranches. The second was the companies organized as private, for-profit investment enterprises. Local cooperatives included

¹⁰³ Due, John F. and Giles French. *Rails to the Mid-Columbia Wheatlands: The Columbia Southern and Great Southern Railroads and the Development of Sherman and Wasco Counties, Oregon*, (Washington: University Press of America, 1979), 43-52. The railroad arrived in Shaniko, "an artificial creation of the railway," on March 7, 1990. Elmer Elm (E.E.) Lytle was the person who got the project underway in 1887, and was its president from 1889-1906.

¹⁰⁴ Coe, Urling C., *Frontier Doctor: Observations on Central Oregon and the Changing West*, (Corvallis: Oregon State University Press, 1996), 4. Coe arrived in Bend January 10, 1905. He was the city's first medically trained doctor. His book was copyrighted 1940.

¹⁰⁵ Schwantes, Carlos Arnaldo. *The Pacific Northwest: An Interpretive History*, (Lincoln: University of Nebraska Press, 1996), 295, 297. Carlos Arnaldo Schwantes, Curriculum Vitae. Accessed November 13, 2014.

¹⁰⁶ Winch, Martin T., "Tumalo — Thirsty Land," (*Oregon Historical Quarterly*, vol. 85, no. 4., Winter 1984), 347. Winch is considered Oregon's preeminent expert on Tumalo Irrigation District's history because of his seminal, six-part series on the district, published in the *Oregon Historical Quarterly* (1984-86). He served on the district's board. Winch cites U.S.C.A., Sections 641-48; *Water Rights of Deschutes River and Tributaries*, 134 OR 623, 286 P 563, 578-80 (1930). The Carey Act was modified in 1886 and 1901.

¹⁰⁷ *Ibid.* 349. Winch cites Oregon Session Laws for 1901, 378; Seventh Biennial Report of the Desert Land Board (1925), 40-46. In order to administer the act in Oregon, legislation created the State Land Board, which consisted of the Governor, the Secretary of State, and the State Treasurer. In 1909 the State of Oregon created the Desert Land Board to oversee the duties relative to the Carey Act conducted previously by the State Land Board. The State Engineer was appointed secretary to the Board. See also: Teele, Ray Palmer, *The Economics of Land Reclamation in the United States*, (Chicago & New York: A.W. Shaw, 1927), 67-69, 152-158.

¹⁰⁸ "State View of Irrigation: What Official Biennial Report to the Legislature Says," (*The Bend Bulletin*, January 27, 1905), 4. (See following footnotes).

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the Squaw Creek Irrigation Company (now called the Three Sisters Irrigation District)¹⁰⁹ and the Deschutes Reclamation and Irrigation Company.¹¹⁰ The two cooperatives were formed before Oregon adopted the Carey Act, and were characterized by little or no capital investment and minimal engineering. The Deschutes Reclamation and Irrigation Company (later known as the Swalley Irrigation District) was a cooperative formed in 1899. Land was selected under the Desert Land Act. Promoters encouraged settlers to acquire an interest by doing an equal amount of work or by purchasing rights from the company. Settlers did much of the work on the canals and ditches, although laborers were occasionally hired as money was available. They had completed a segregation of 1,280 acres by 1913. Water was diverted to the Swalley Canal at the North Dam. The Squaw Creek Irrigation Company was a cooperative venture between neighboring farms formed in 1895 and used/uses water from Whychus Creek (formerly Squaw Creek), not the Deschutes River.

The canal companies formed as commercial investment enterprises under the Carey Act were generally larger in scope than the cooperative ventures. Local commercial projects included a project in the Tumalo Creek¹¹¹ area, the Arnold Irrigation Company,¹¹² and two organizations which came under the management of the Deschutes Irrigation and Power Company: The Pilot Butte Development Company and the Oregon Irrigation Company.

In 1902, Congress enacted the Reclamation Act, providing for the construction of irrigation works by the federal government with the proceeds from the sale of public lands.¹¹³ Due to the water in the river being over-allocated, in 1913, the state indefinitely withdrew the Deschutes River from further appropriation until a study could be completed in 1935-37.¹¹⁴

THE PILOT BUTTE DEVELOPMENT CO. BEGINS THE CENTRAL OREGON PROJECT

A.M. Drake Arrives on the Deschutes River, 1900

Alexander McClurg (A.M.) Drake, along with his wife Florence W. Drake and hired hand Charles J. Cotter, travelling in their covered wagon to visit friends, arrived in the area that became Bend in June 1900. Cotter served as the couple's guide, cook and general handy man. That year, William H. Staats sold the land along the river that included the future townsite of Bend to Drake for \$4,000. In the fall of that year, construction of the couple's vacation home, a rustic log home, built and decorated in the style of a mountain hunting lodge, was started on the east bank of the Deschutes River in what would become the western edge of Bend.¹¹⁵

¹⁰⁹ *A History of Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 30-31. In 1917, the company became the Squaw Creek Irrigation District. No actual irrigated acres for the period were identified.

¹¹⁰ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 713-14.

¹¹¹ Winch, Martin T., "Tumalo — Thirsty Land," (*Oregon Historical Quarterly*, vol. 86, no. 4, winter, 1985), 388. The Tumalo Creek project did not utilize Deschutes River water until 1923; *Ibid.*, 377. Winch states: "[By 1920], only 4,080 of the irrigated acres were actively farmed, on 102 units, producing, for the most part, grains and hay. An average irrigated acre sold for \$75 and yielded a gross return of \$29. The district's population was 317"; Winch, Martin T., "Tumalo — Thirsty Land," *Oregon Historical Quarterly*, winter 1984 – spring 1986. The irrigation system suffered engineering, managerial, and financial disasters throughout its history; Smith, Dwight A., Cultural Resources Specialist, *Historic Context: The Development of Irrigation in the Bend Area c. 1890 to 1940*, (Oregon Department of Transportation, Salem: Oregon Department of Transportation, June 1991), n.p., Table 1. The organization has been known and operated under different names including the following: Three Sisters Irrigation Ditch Co. (1893); Three Sisters Irrigation Co. (1900); Columbia Southern Irrigation Co. (1905); State "Tumalo Project" (1913); Tumalo Irrigation District (1919); Deschutes County Municipal Improvement District (1922); and Tumalo Irrigation District (1959).

¹¹² *A History of the Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 17. Water was not delivered by the Arnold Irrigation Company until June 1911; Federal Power Commission, *Report to the Federal Power Commission on Uses of the Deschutes River, Oregon*, (Washington: Printing Office, 1922), 70. A company reported figure of 3,000 acres 'in crop' was provided in 1920.

¹²⁸ Teele, Ray Palmer, M.A., *Irrigation in the United States*, (New York: D. Appleton, 1915), 12; The Act was also known as the Newlands Reclamation Act, after Nevada Representative Francis G. Newlands who worked for its congressional support.

¹¹⁴ State Engineer, [Presumed to be John Lewis], *Deschutes Project: Oregon Cooperative Work*, (Department of the Interior, U.S. Reclamation Service, Portland, 1914), 10-12.

¹¹⁵ *A History of the Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 212-213. Drake was born in Xenia, Ohio, on January 11, 1859. The family moved to St. Paul, Minnesota, following the close of the Civil War. The couple retired to Pasadena, California, in 1911. He died October 10, 1934, following his wife's death on May 15, 1933; Brogan, Phil F.,

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Florence Drake decorated the house with Asian carpets and concrete landscape lanterns, purchased during a trip to Asia, and portraits of local Native Americans that she painted.



Alexander M. Drake, Visionary and President of the Pilot Butte Development Company¹¹⁶

Alexander Drake was a wealthy Minneapolis, Minnesota, capitalist who had been interested with his father in railroad and land business. He was “nurtured in the philosophy of development.”¹¹⁷ His father, Elias Franklin Drake, was a banker and built railroads in the mid-to-late 1800s in Ohio, Indiana, Minnesota, and in other areas of the central part of the nation, including the first ten miles of railroad in Minnesota, which became a section of the Great Northern Railway. While building railroads, the Drake Company founded several towns, including St. James and Worthington, Minnesota. Elias Drake served three terms in the Ohio House of Representatives, one term in the Minnesota Senate, and retired as president from the St. Paul & Sioux City Railroad in 1880.¹¹⁸ He and James J. Hill, who built the Oregon Trunk Railroad to Bend in 1911, had lived a few blocks from one another in St. Paul, Minnesota.¹¹⁹ A.M. Drake learned to form partnerships with those in power and wealth and build coalitions with those of influence.



Florence and Alexander Drake’s log lodge and outbuildings on Garden Row on the Deschutes River, c. 1904¹²⁰

East of the Cascades, (Portland: Binford and Mort, 1964), 181-185.

¹¹⁶ Photograph: Deschutes County Historical Society, unknown date.

¹¹⁷ Clark, Keith, *Redmond: Where the Desert Blooms*, (Portland: Western Imprints, 1985), 4; Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 717.

¹¹⁸ Minnesota Historical Society, Collections of the Minnesota Historical Society, “Elias Franklin Drake Obituary” (Accessed October 15, 2014); Schmiedeler, Tom, Minnesota Historical Society, “Civic Geometry: Frontier Forms of Minnesota’s County Seats” (Accessed October 15, 2014).

¹¹⁹ Millett, Larry, E-mail to Michael Hall, (April 16, 2014). Miller, an author of several books on the history of architecture in Minnesota, indicated Elias F. Drake’s 1866 residence on Lafayette Road was about six blocks from Hill’s 1878 home on Canada Street in the Lowertown neighborhood. In 1891 Hill moved to a much larger new residence about a mile-and-a-half from Drake’s place. Though, it is not entirely clear how long Drake lived at the Lafayette address, one city directory indicates he was still living there in 1879, so he and Hill were indeed neighbors at one point.

¹²⁰ Undated photograph: Deschutes County Historical Society.

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Alexander Drake's plans for irrigation development and the incorporation and settlement of Bend, Oregon, were born out of significant Eastern wealth and the lure of late nineteenth century capitalism, fueled by the rich promises of the Deschutes River. Drake understood the opportunities before him, including irrigation development and settlement of cities. He encouraged his family's railroad partners and associates to extend a railroad to the area, and to buying, sell, and develop land for business and agricultural purposes.

Drake Incorporates the Pilot Butte Development Company and Files for Water Rights, 1900

Alexander Drake, his wife, and Charles J. Cotter incorporated the Pilot Butte Development Company (PBD Co.) on October 29, 1900, to divert the waters of the Deschutes River and to conduct the water through dams, canals, flumes, ditches, pipes, and siphons to distribute and convey it for irrigation, mining, milling, domestic, manufacturing, navigation, lumbering, power or other purposes, and to supply water to municipal corporations or individuals, for public or private use.¹²¹ Days later, on October 31, 1900, he initiated the filing process for water rights.¹²² His water rights were under the doctrine of 'appropriation'.

Irrigation economist Ray Palmer Teele, M.A., explained the meaning of the term: "Under this doctrine anyone who will put water to a 'beneficial use' may take or 'appropriate' it, and the right to continue to take it exists so long as the use continues, provided such use does not conflict with use by one who made an earlier appropriation from the same source."¹²³ There was a race to file for water rights on the Deschutes and Drake had posted notices on the river and filed documents with the state. His other plans included building a city, a lumber mill, an electrical power-generating plant, a general store, and a school house.¹²⁴ Drake had regularly been on the Deschutes River and climbed up buttes that gave him an overlook of the terrain. He saw the possibilities of irrigating the huge area east of the Deschutes River, over 2,376 square miles, north across the Crooked River to Trout Creek near the Warm Springs Reservation, east beyond the Dry River and Powell Buttes toward Prineville, and south to the buttes in what is now Newberry Crater National Monument (Figure 24). The area he was contemplating irrigating and bringing a railroad into was 36 miles wide by 66 miles long north to south. He examined the river and land that sloped at an average of 30' per mile and saw the possibilities. He hired L. D. Wiest of Portland as his civil engineer and he hired survey crews to begin surveys three months before Oregon adopted the provisions of the Carey Act (Feb. 1901).¹²⁵

1902 Reclamation Contract between the State of Oregon and the Pilot Butte Development Company

On May 31, 1902, the PBD Co. entered into a contract with the State of Oregon to reclaim the land in Segregation List No. 6, comprising 84,707.74 acres under the Carey Act (Figures 9, 10, 13). Two canals would be constructed: The PBC and the COC, to convey water to an area approximately 30 miles wide by 30 miles tall. Ownership of the land was transferred from the federal government to the state of Oregon. It would be sold to the settlers by agents of the PBD Co., in accordance to the location, amount of rock on the land, and the cultivation that was possible.¹²⁶ An annual water delivery assessment was also agreed to. The PBD Co. held liens on the acreage sold and was reimbursed by the State when the irrigation water was delivered to the settler. The State would issue patents to the land to the settlers when it was sold by the PBS Co. and their agents, for terms approved by the state, and when it was settled and irrigated. The company had been

¹²¹ Crook County, Oregon, *The Pilot Butte Development Company Articles of Incorporation*, (vol. 1, page 78, Crook County Clerk, Prineville, Oregon, October 29, 1900).

¹²² Becker, Frank R., Assistant State Engineer, Under the Direction of Rhea Luper, State Engineer, *A Report on the Central Oregon Irrigation District*, October 19, 1924, (Deschutes County Clerk's Office, Bend, OR.), 138.

¹²³ Teele, Ray Palmer, M.A., *Irrigation in the United States*, (New York: D. Appleton, 1915), 85. Teele added: "First in time, first in right", is the classical statement of this doctrine."

¹²⁴ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 717.

¹²⁵ Russell, Israel Cook, *Preliminary Report on the Geology and Water Resources of Central Oregon*, Bulletin No. 252, (U.S. Geological Survey, Department of the Interior, Washington: Government Printing Office, 1905), 94. Russell reported that Drake has had "detailed surveys" made to take water from the Deschutes River at Benham Falls and to conduct it to the "rich lands lying west of Culver... [as] ...a part of an extensive and apparently well-matured plan for the irrigation of a vast extent of now unproductive land in the west-central part of Crook County."

¹²⁶ Central Oregon Irrigation Company, description of the Carey Act Segregation, July 30, 1913, published in the Bend Bulletin, 1.

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engaged with the State to secure the agreement for approximately a year, according to the State Engineer.¹²⁷ Levi D. Wiest was appointed to make the required surveys, and J.C.S. Taber was hired as selecting agent. It was the largest Carey Act contract entered by the State at the time, to be conducted over a period of ten years, with ten percent of the project being completed each year. Construction deadlines were set and construction of the first canal, the shorter PBC, was on a fast timetable.

The cost of construction and the amount of the lien was fixed at \$848,557, the amount estimated by the PBD Co. that was needed to build two main canals and a water distribution system, which was about \$10 per acre. After an examination made in the field, the State Engineer reported to the State Land Board, "the land is irrigable and the soil is good except for lava dykes 'cutting it up' and there is no alkali; the water supply in the 'Big Des Chutes' is ample for complete reclamation, and the dimensions of the proposed canals are sufficient; the general plan of irrigation is feasible and the work proposed, when executed, should reclaim the land; the estimate of cost is not too high, but the estimate for maintenance is too high."¹²⁸



Levi D. Wiest, Civil Engineer, with wife and daughters¹²⁹

L.D. Wiest, Engineer, 1900-07¹³⁰

For thousands of years, one of the greatest engineering challenges has been to bring water to where it is needed, whether to irrigate crops, provide for cities, or to create shipping lanes. Civil engineer Levi D. Wiest was hired by Drake in the fall of 1900 and stayed with the PBD Co. until 1907. He had entered the classical course at Pennsylvania College in 1879 and began to study land surveying. From 1881 to 1883 he pursued courses in drafting and civil engineering at the University of Michigan. By 1884 he was a transit man on a locating party for the Gulf, Colorado and Santa Fe Railroad in Texas. Wiest was employed in the engineering department of the Union Pacific Railway in Nebraska and the Missouri Pacific Railway, working different survey instrument positions. He was a typographer and field draughtsman on locating parties and held positions on the construction crew. He spent ten months in auditing. Next, in Wyoming in 1889, he located approximately 200 miles of canals, laterals, and ditches, which were all built. Arriving in Portland, Oregon, in December that year, he made a survey for the Chehalis, Washington water system and afterward entered the auditing

¹²⁷ Becker, Frank R., Assistant State Engineer, Under the Direction of Rhea Luper, State Engineer, *A Report on the Central Oregon Irrigation District*, October 19, 1924, (Deschutes County Clerk's Office, Bend, OR.), 138, 141. In the spring and summer of 1901 lands were examined and surveyed and a plan of reclamation was prepared for submission to the State Land Board. September 11, 1901, PBD Co. made an application to the State Land Board for a preliminary contract covering the land included in what was later designated as Carey Act Segregation List No. 6. December 2, 1901, a preliminary contract between PBD Co. and State of Oregon was executed. May 31, 1902, a final contract between PBD Co. and State of Oregon, providing for the reclamation of lands in Segregation List No 6, was executed; State of Oregon, *Report of State Land Board Relative to Desert Lands, Granted the State Under the "Carey Act" for the Period Commencing October 1, 1902, and Ending September 30, 1904*, to the Twenty-Third Legislative Assembly [Regular Session], (Salem, Oregon, 1905), 11.

¹²⁸ State of Oregon, *Report of State Land Board Relative to Desert Lands for the Period Ending September 30, 1902*, (Salem, Oregon, 1902), 26-28.

¹²⁹ Undated photograph courtesy of the Deschutes County Historical Society.

¹³⁰ Wiest, Levi D. Biography from *Deschutes Pioneers Gazette*, Deschutes County Historical Society, and Family Sources. (Compiled by Pat Kliewer, Bend, Oregon, 2014).

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department for the Oregon Washington Railroad and Navigation Company, a system of the Union Pacific. He transferred to a locating party in Idaho for the Oregon Short Line and later to a construction party in Oregon where he worked to reconstruct the main line of the Union Pacific through the Columbia River Gorge.

On October 1, 1900, Wiest began work in Bend for A. M. Drake, serving as the chief engineer of the Pilot Butte Development Company (PBD Co.) until 1904. From the time of the company's early organization, he supervised crews who made all the surveys of the canal routes and land examinations required under the Carey Act for segregation and for construction purposes. He was the vice-president of the PBD Co., and his duties went beyond canal work to securing land and water rights and similar matters. He surveyed and drew the plans for the Bend townsite plat; designed and erected buildings for the company; designed the PBD Co. sawmill; designed Bend's first water system; and designed Bend's power dam.¹³¹ When the Deschutes Irrigation and Power Company took over operations of the canals in February 1904, CC Hutchinson brought his civil engineer, Joseph G. Kelley with him. Wiest was replaced as Chief Engineer for canal construction in April 1904 by Kelley, a hydraulic engineer, formerly with the US Army Corps of Engineers. Wiest continued as his assistant and as assistant project manager and worked on other projects for the firm. Wiest became active in the new city of Bend and served as a school board member. Kelley resigned after two months of work in June of 1904, due to a disagreement with management, and returned to Portland.¹³²

Charles M. Redfield

Also, in April of 1904, the irrigation company hired a third civil engineer, Charles Monteith Redfield. Redfield took over as the Chief Engineer for the irrigation company in 1904 and served in that role until shortly after COID took over the irrigation system in 1921. He was born in Lebanon, Oregon, in April 1871. He grew up in Albany, Oregon, where his father, Francis Mylon Redfield, owned a grocery store. He graduated from the Albany Collegiate Institute in Linn County, Oregon, and attended an engineering school in San Francisco, California, for one year. He worked for the Corvallis & Eastern Railroad owned by Andrew B. Hammond and financed by Henry Huntington and Thomas Hubbard. For that company, he surveyed a railroad route from Detroit, Oregon, over "Hogg Pass" (Santiam Pass) and across eastern Oregon to Idaho. Although the railroad was not extended beyond the lumber mills near Detroit, in 1907 the railroad and surveys were sold to the Southern Pacific Railroad for a huge profit. Redfield spent three years with an engineering party in South America. He next worked as an engineer in Morro, Sherman County, Oregon, by 1900. He married Mary Lydia Jeanne Fitzmaurice from Ireland in Moro in 1901. In 1903 Redfield worked for the Union Pacific Railroad in Omaha, Nebraska.¹³³ The family moved to Bend in April 1904 where Charles Redfield began work for the Deschutes Irrigation and Power Company, which had recently taken over the Central Oregon Project. In two months, he was promoted to Chief Engineer, a position he held for 17 years. He finished the PBC, began and completed the COC, designed the Powell Butte Siphon, supervised the construction of the North Dam and North Canal and enlarged the wooden flume at the intake for the Pilot Butte and Central Oregon canals.

¹³¹ Family history indicates he saw an advertisement in the Portland *Oregonian* placed by Drake and traveled to Prineville, the Crook County seat, to meet him, then visited what would become Bend, and accepted the position. Beginning about 1907, Wiest was the Arnold Irrigation system engineer for about fifteen years. During 1908-1910, he surveyed a canal for the Suttle Lake Improvement District. From 1923-1927, he surveyed for a railroad between Bend and Sisters for logging purposes. He served as school board director for at least seven years in the school's formative years. He was involved in a number of other enterprises.

¹³² "New Company in Charge: Deschutes Irrigation & Power Company Took Formal Control Yesterday," *The Deschutes Echo*, April 2, 1904), 1.

¹³³ Telephone interview with his grandson, Charles Morris Redfield, Mill Valley, CA. 2017.

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1901 wedding photo of Mary Fitzmaurice Redfield and Charles M. Redfield¹³⁴

The Redfield's were community leaders. At the end of 1904, Charles M. Redfield was elected to a position on the new Bend City Council for the newly incorporated town and was sworn in along with the first mayor, A. L. Goodwillie, on January 10, 1905, during the city's first city council meeting. He was a founding member of the Bend Masonic Lodge # 139 on June 17, 1909. The lodge purchased the Drake's home in 1909, when the Drakes moved to Pasadena, California. The Drake house served as the organization's office and meeting location until 1952. Mrs. Redfield was a founding member of the Redmond Presbyterian Church in 1906 and the Women's Guild at the Holy Trinity Episcopal Church in Bend in 1908.¹³⁵

After getting his office and records in order, Redfield left the newly-formed COID in 1921. He became a consulting engineer and worked on projects for many of the local irrigation districts. In 1923, he surveyed and measured the main canal and all the laterals for the Deschutes Reclamation and Irrigation Company to determine their capacity. He was the first superintendent of the Bend Water Department on April 1, 1926, when the city purchased the water system from the Bend Water, Light & Power Company. With W.E. Guerin and A.L. Goodwillie had incorporated the Bend Light, Water and Power Company in 1905. The firm purchased the PBC Co.'s rights to construct and maintain electric lines, gas, water, and other public utilities of the city. The city water system was in operation by July 1905.¹³⁶ After the pioneer irrigation engineer had resided in the Central Oregon country for 25 years, he died on a trip to Emmett, Idaho, on March 22, 1929, at age 57.¹³⁷

Pilot Butte Development Company (PBD Co.) Plans and Building the Flume, 1903

The joint PBC and COC headgate on the Deschutes River,¹³⁸ referenced in a local newspaper in February 1903, and in the 'Becker Report, indicated engagement of the company with the State Land Board in the period before their Carey Act contract was signed. The report suggests that the headgate was built by early 1903.¹³⁹ The article indicates some excavation and clearing of rock along the flume right-of-way had been done

¹³⁴ 1901 photo from the Redfield Family Collection, courtesy of Ann Gallagher, Denver Colorado.

¹³⁵ Deschutes County Historical Society, *A History of the Deschutes Country*, 24, 52, 58, 83, 91.

¹³⁶ Crook County, Oregon, *Articles of Incorporation of The Bend Water Light and Power Company*, (Crook County Clerk, Prineville, Oregon, November 11, 1904); The other partner was George C. Steinemann, an attorney; "Water Franchise," (*The Bend Bulletin*, February 10, 1905), 1; "Water, Light and Power Company," (*The Bend Bulletin*, November 11, 1904), 4; Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 729; "Water Pipes Arriving," (*The Bend Bulletin*, April 14, 1905), 1. A crew of twenty-five workers installed the water system from the river up to Wall Street and along Wall Street nearly to Oregon Avenue.

¹³⁷ Obituary, Bend Bulletin, March 19, 1929, 1. Ancestry.com. Wikipedia.

¹³⁸ I.C.S. Staff, *Dams—Irrigation*, (Scranton: International Textbook Company, 1906), 38. This source was a college textbook for engineering students with an emphasis on mathematical equations; it is used here for its definition. For additional information on the subject, see Davis, Arthur Powell, D.Sc. and Herbert M. Wilson, C.E., *Irrigation Engineering*, (New York: John Wiley & Sons, Seventh Edition, 1919), 247-262, Chapter XIV, "Canal Structures." Davis was formerly Director and Chief Engineer, U.S. Reclamation Service. Wilson was formerly Chief Engineer and Irrigation Engineer, U.S. Geological Survey.

¹³⁹ "Desert Will Be Irrigated," (*The DesChutes Echo*, February 21, 1903), 1. The article states, "The headgates of the proposed canal are near here"; Working on the Flume Line, *The Bend Bulletin* August 28, 1903¹³⁹ ('Becker Report'); Becker, *A Report on the Central Oregon Irrigation District*, October 19, 1924, 138, 141. In the spring and summer of 1901 lands were examined and surveyed and a plan of reclamation was prepared for submission to the State Land Board. September 11, 1901, PBD Co. made an application to the State Land Board for a preliminary contract covering the land included in what was later designated as Carey Act Segregation List

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“two years before.” It is possible that Wiest was ready to begin the headgates even before the contract was signed between the PBD Co. and the State, as plans were moving forward in spring and summer of 1901, as suggested by Becker’s 1924 report.

The plans of the PBD Co. in July 1903, were to build the irrigation canal from the headgate at a point on the Deschutes River about three miles upstream from (south of) the future City of Bend. For about a mile-and-a-quarter below the headgate, an enclosed wooden flume¹⁴⁰ would carry the water over nearly solid rock and some caverns (lava tubes). Wiest designed a lumber mill to be assembled near the flume to produce the massive amount of lumber needed for its construction. That lumber would need to be planed and dried to reduce the chance of warping. It was thought that designing the flume was not considered difficult and would be the same as done for other canals in the West and in the region, but this assumption turned out to be a costly mistake that led to Wiest’s replacement by Kelley and Redfield. No canal work was to be performed until the flume at the intake was completed, as it was necessary to bring water in the canal to the men and horses at the construction camps, as they moved north and east away from the river. At first, work progressed rapidly and economically. At the end of July 1903, six men were clearing right-of-way for the flume through the river’s canyon. Trees near the flume were cut away and a space 25’ wide underneath was cleared of all combustible matter. Laborers were gradually added to the crew as the construction got underway.¹⁴¹

The PBD Co. lumber mill began operation at intervals as the machinery was tested and adjusted to expeditiously produce lumber in August 1903.¹⁴² The firm began to saw and pile the estimated 700,000 board feet of lumber that would be required for the flume. The flume would follow the general line of the Deschutes River Canyon, cutting across chasms on wooden trestles as high as 25’. With the lumber mill at the lower end of the flume, a false flume bottom was to be laid from the mill site to the headgates, which would serve as a roadway for the transportation of materials for the building of the flume. As portions of the flume were completed, workmen would move back down the roadway toward the mill, thus preventing the marring or soiling of the finished flume.



1904 view to the northeast of stacked lumber, the clearing through the pine forest, and the shared wooden flume. 1.5 miles from the intake of the Central Oregon Project the flume split into the PBC on the left (north) and the COC on the south.¹⁴³

No. 6.

¹⁴⁰ Etcheverry, B.A., *Irrigation Practice and Engineering: Volume II, Conveyance of Water*, (New York: McGraw Hill, First Edition, 1915), 198. According to Etcheverry, Head of the Department of Irrigation, University of California, in 1915, “A flume may be either a bench flume, supported on a shelf or cut in the side hill, or may be an elevated flume for the conveyance of water over a depression or drainage channel. In steep side-hill work the uphill side of the flume may be supported on a narrow shelf and the downhill side held up by posts or other form of substructure.” These support structures were generally referred to as trestles.

¹⁴¹ “Work on The Ditch: Plans and Progress of Pilot Butte Development Co.,” (*The Bend Bulletin*, July 31, 1903), 3.

¹⁴² “Local Events of the Week,” (*The Bend Bulletin*, August 21, 1903), 3; “Local Events of the Week,” (*The Bend Bulletin*, July 24, 1903), 3. A 45-horse-power engine provided the mill’s power. Two loggers had delivered 200,000 board feet of timber, one-third of their contract.

¹⁴³ 1904 Deschutes County Historical Society Photo.

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The work on the flume was expected to be done in November 1903, but the crews were behind schedule. At the end of October nearly 1000' of trestle for the flume was completed and the working floor was being laid from the mill up toward the headgates; work was proceeding at 200' to 400' per day.¹⁴⁴ Only half of the flume was completed by the first week of December.¹⁴⁵ Thereafter, four wagon loads of scrapers and a breaking plow arrived. But low wages resulted in a smaller than desirable workforce. Difficult working conditions and winter weather precluded canal work, though some blasting was completed at the intake.¹⁴⁶ In February 1904, the flume was reported to be 1.5 miles in length, with trestle supports set 8' apart set on solid rock. It was to be finished by March; however, work toward completion did not occur.¹⁴⁷ No further significant work by Drake's PBD Co. was conducted at that time.

Another assumption proved inaccurate: building the canal in an open channel for twenty miles below the flume, beyond the surface rock flow, was also expected to be comparatively easy work. The company thought that for most of the distance, natural channels would be followed, and the canal water would "wash its own way" through the light volcanic soil. The remaining canal work, it was said, would "amount to little more than leading the water along the surveyed course."¹⁴⁸ The company expected to deliver water to the Bend townsite before the end of the year.

James H. Drake and James G. and Arthur L. Goodwillie of Chicago Visit the Deschutes, 1903

As early as 1891, A.M. Drake sat on the board of directors of the Chicago, St. Paul & Kansas City Railway Company.¹⁴⁹ Just over a decade later, in November of 1903, Colonel James H. Drake, and James G. Goodwillie and his son Arthur L. Goodwillie, all of Chicago, spent ten days with Drake and his wife on the banks of the Deschutes. Colonel Drake was a cousin to A.M. Drake. The Colonel was formerly the land commissioner of the St. Paul & Sioux City Railroad (the same railroad as Elias Drake was president) and its assistant manager, but more recently had been a Chicagoan, and for twenty-five years had been a member of the Chicago Board of Trade.¹⁵⁰ Elias F. Drake died in 1892, leaving the Colonel as the elder family member and confidant that had been associated with him. James H. Drake had experience acquiring congressional land grants and in supervising engineering and construction, finance and other matters.¹⁵¹ He was not a Board

¹⁴⁴ "Progress of Irrigation Flume," (*The Bend Bulletin*, October 23, 1903), 3.

¹⁴⁵ "Work On the Flume," (*The Bend Bulletin*, November 27, 1903), 3.

¹⁴⁶ "Pushing the Ditch Work," (*The Bend Bulletin*, December 14, 1903), 3. Drake offered tents in December weather and sheds for the animals were yet to be erected. Two-thirds of the flume trestle was completed; the flume proper's extent of completion is not stated. It is not evident if the 'intake' specifically indicates the headgates, or if the blasting is to enlarge the stretch between the headgates and the flume; "P. B. D. Co.'s Work," (*The Bend Bulletin*, December 11, 1903), 3. The cold weather made work slow. The ground was frozen several inches deep. Excavation work was moved north near Long Butte where the soil was not frozen.

¹⁴⁷ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10. It is possible the extent of the flume's completion was overstated for investors, or what component of the flume was completed was simply misunderstood, i.e. the entire flume was not completed, though the trestle structure may have been.

¹⁴⁸ "Working On the Flume Line," (*The Bend Bulletin*, August 28, 1903), 3. In addition to the excavation indicated to have been done "two years before," it is possible that Wiest began the headgates, referenced in the *DesChutes Echo* of February 21, 1903, and cited in the first sentence of this section, also in 1901; "Clearing Flume Right of Way," (*The DesChutes Echo*, August 8, 1903), 1. A track was to be laid along the flume route for the purpose of conveying material for the structure, as the route was inaccessible to teams.

¹⁴⁹ *Fourteenth Annual Report of the Board of Railroad Commissioners for the Year Ending June 30, 1891, State of Iowa*, "Annual Report of the Chicago, St. Paul & Kansas City Railway Company for the Year Ending June 30, 1891," (Des Moines: State Printer, 1891), 258; "Chicago, St. Paul & Kansas City Railway Company," *Annual Report of the Railroad and Warehouse Commission of Minnesota to the Governor for the Year Ending Nov. 30, 1892*, (Minneapolis: Harrison & Smith Printers, 1893), 235; "Thompson v. Chicago, St. P. & K.C. RY. Co. et al.," (Circuit Court, D. Minnesota, First Division, April 14, 1894), 778. The court document indicates it was organized under the laws of the State of Iowa; Park Genealogical Books. The railroad was started in 1887 and ended in 1983.

¹⁵⁰ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6.

¹⁵¹ *Legislative Documents Submitted to the Twenty-third General Assembly of the State of Iowa, Which Convened at Des Moines, January 13, 1890, vol. vi*, (Des Moines: State Printer, 1890). As an example, in the year reported, the Chicago, Milwaukee & St. Paul Railway Company received congressional grants in Iowa of 372,133.27 acres of land. In that year, the Chicago, St. Paul & Kansas City Railway Company, the railroad on whose board A.M. Drake is known to have sat in 1892, the amount of stock representing railroad in Iowa was \$8,538,978.91 (p. 48). The actual cash value of the railroad and equipment was \$43,737,728.50 (p. 55).

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of Trade commission member, nor did he represent a bank, brokerage house or any other type of firm. He was an independent speculator-investor. He held substantial wealth and understood sizeable investments.¹⁵²

James G. Goodwillie was for thirty years engaged in extensive lumber manufacturing as Goodwillie & Goodwillie at Wausau, Wisconsin, and then was a member of Goodwillie Bros. in Chicago. His firm had built wooden boxes since 1873 and was the oldest manufacturer of boxes in the United States, with plants in several cities.¹⁵³ His son, A. L. Goodwillie, had recently graduated from the prestigious Williams College in 1901 and then worked for a large banking concern in Chicago.¹⁵⁴

Alexander Drake took his guests for a tour of the Deschutes River area, and to view the PBD Co.'s irrigation works and the lands to be irrigated. They rode in a wagon along the proposed route of the PBC to Forked Horn Butte near the future city of Redmond to see the broad area to be served by the canal and to gain an understanding of the Deschutes country.¹⁵⁵ Before leaving the area, Colonel Drake commented on what they had discovered during their visit:

*"This country is a revelation to us. Nobody can get an adequate conception of this section by reading about it. It is an empire and I am fairly astonished at the display of native resource and possibilities of development that I observe here. Here I find actually present, and in a form to appeal to any business judgment, such native wealth and much opportunity for using it that I am surprised and gratified beyond expression."*¹⁵⁶

Alexander and Florence Drake accompanied the group to Portland, where they took the train to the Midwest. They were absent from the Deschutes Country for about two months.¹⁵⁷ Returning in January 1904, Drake announced "that important plans had been made for the watering of the wilderness, the development of Bend and the colonization of the Deschutes Country. He had been as far east as Chicago 'to lay plans for immigration' and to attend to other business connected with his irrigation enterprises."¹⁵⁸

Contesting Irrigation Companies: PBD Co. and Oregon Irrigation Company, 1900-1903

A.M. Drake and Charles C. Hutchinson, president of the Oregon Irrigation Company (OI Co.), were early irrigation development partners, then competitors, in the Deschutes Country, which provided the impetus for a contentious relationship. "Inevitably there was competition," wrote historians Keith and Donna Clark in "Pioneers of Deschutes Country," *High & Mighty: Select Sketches about the Deschutes County*.¹⁵⁹ Describing

¹⁵² Stone, George F., *The Forty-Second Annual Report of the Trade and Commerce of Chicago for the Year Ending December 31, 1899, Compiled for the Board of Trade*, (Chicago: The J.M.W. Jones Stationery and Printing Co., 1900), 239; Stone, George F., *The Forty-Fourth Annual Report of the Trade and Commerce of Chicago for the Year Ending December 31, 1901, Compiled for the Board of Trade*, (Chicago: The J.M.W. Jones Stationery and Printing Co., 1902), 231; Keller, Megan, Project Archivist, CME Group Collections, University of Illinois At Chicago, E-mail to Michael Hall, (March 23, 2015). James H. Drake was a member of the Chicago Board of Trade from Nov. 13, 1876 to Jan. 14, 1903.

¹⁵³ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6; Leonard, John William, *The Book of Chicagoans*, (1911, vol. 2), 273. It appears the Wausau firm was called Goodwillie & Goodwillie, 1873-1890, and the Chicago firm, 1890 to at least 1911 (the publication date of this book), called Goodwillie Bros. Another plant was in Manistique, Michigan.

¹⁵⁴ "A. L. Goodwillie Is Dead At 67," (*Lynchburg News*, Lynchburg, Virginia, January 15, 1946), n.p. The obituary says, "He was attracted to the West from his native Chicago by the potentialities of a huge irrigation plan. With a friend, he purchased large tracts of land in the area. When only twenty-three he was named mayor of the town he founded, and received nation-wide recognition as the youngest 'town father' in the country; Family Search, "Arthur Lawson Goodwillie," (Individual Record, Pedigree Resource File); "First Mayor Dies in Virginia," (*The Bend Bulletin*, January 22, 1946), 1.

¹⁵⁵ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6; "Why It Is Called Forked Horn Butte," *The Redmond Spokesman*, December 14, 1911), 2. According to the local story, "In the early days a homesteader went hunting on the butte and killed a forked horn deer, and ever since that time in speaking of the locality it has been designated as 'Forked Horn Butte'."

¹⁵⁶ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6.

¹⁵⁷ "Local News," (*The Bend Bulletin*, November 13, 1903), 3; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, January 27, 1931), n.p.

¹⁵⁸ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, January 27, 1931), n.p. Brogan article, Drake statement.

¹⁵⁹ Vaughan, Thomas, ed., Keith and Donna Clark, "Pioneers of Deschutes Country," *High & Mighty: Select Sketches about the Deschutes Country*, (Portland: Oregon Historical Society, 1981), This text was researched and written by those who lived, or had

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the Drake-Hutchinson contest, they say:

“Hutchinson was on the Deschutes with engineers making surveys and water filings two years before Drake appeared in 1900. Since Hutchinson needed capital, in 1899 he wrote to Drake at Spokane, representing to him the potential profits in irrigation development near Bend. Drake came, assessed the prospect and asked for Hutchinson’s proposal. He was offered half of the company stock, with agreement that he be president and manager, conditional on his supplying needed capital. Drake agreed to the terms and paid for surveys. About two months afterwards, Drake informed Hutchinson that he saw no reason for partnership in the venture, in effect elbowing Hutchinson aside.”¹⁶⁰

The two companies then proceeded to make new water filings on the upper Deschutes River, in two instances side by side. Hutchinson protested to the General Land Office, which dismissed it. Secretary of the Interior Hitchcock affirmed the decision and recognized the legitimacy of the PBD Co.’s claim.¹⁶¹

In early December, 1903, Hutchinson returned to revisit the Deschutes Country after being gone “for a year or more,” with W.E. Guerin and H.D. Turney, of New York, who represented capitalists favorable to investment in irrigation development.¹⁶² A January 20, 1904 letter to the State Land Board, composed of the Oregon Governor, Secretary of State and the Treasurer, from Hutchinson indicated his plans to move forward on a number of matters that conflicted with the PBD Co.’s plans, which Drake had previously protested in a letter to the State Land Board. Hutchinson’s plan to build a dam across the Deschutes River was a threat to the PBD Co., as it could divert needed water away from the intake for the Pilot Butte and Central Oregon canals that was under construction downstream from the proposed dam. Hutchinson pointed out to the land board that the applicable law allowed a dam located on private land to be built.¹⁶³ The letter further indicated that his Oregon Irrigation Company had complied with all of the requisites for a contract for reclamation.¹⁶⁴ The letter refuted Drake’s responses, pointing out that the land board’s own engineer had made an examination of the feasibility of the plan, and that the Oregon Irrigation Company would demonstrate to the satisfaction of the land board its

lived, in Deschutes country or were otherwise particularly familiar with its characteristics and the history surrounding it. Keith Clark’s involvement with *Oregon Historical Quarterly* and the *Oregon Historical Society Press* spanned many years. Besides contributing to *High and Mighty*, he authored *Redmond: Where the Desert Blooms*, he co-edited with his wife, Donna, *Daring Donald McKay, or The Last War Trail of the Modocs*, and was a contributor to the *Oregon Historical Quarterly*, and served for many years on the OHQ Editorial Advisory Board. With Lowell Tiller, he co-authored *Terrible Trail: The Meek Cutoff, 1845*. Clark also served as president of the Deschutes County Historical Society and on the Deschutes County Historical Landmarks Commission. He taught history at Central Oregon Community College; “Keith Clark Obituary,” *Oregon Historical Quarterly*, 2002, *HighBeam Research*, (November 15, 2014); Oregon History Project, (November 15, 2014).

¹⁶⁰ Vaughan, ed., “Keith and Donna Clark, “Pioneers of Deschutes Country,” *High & Mighty: Select Sketches about the Deschutes Country*. The Clarks cite a letter, “C.C. Hutchinson to Binger Herman,” dated October 10, 1901, in author file. Binger Herman, of Oregon, was commissioner of the General Land Office.

¹⁶¹ Ibid.; Becker, Frank R., *A Report on the Central Oregon Irrigation District*, 1924, “Report: Duty of Water,” 1-2. Becker summarized Hutchinson’s plans. The Oregon Irrigation Company had been incorporated November 14, 1899, by C.C. Hutchinson and others, and made application to the board in 1901 for a contract to reclaim lands in Central Oregon. The application was protested by A.M. Drake. On January 21, 1902, upon request of the Oregon Irrigation Company, all papers and maps previously filed with the board were withdrawn and returned to the company. On December 22, 1903, the Oregon Irrigation Company made a second application for a contract to reclaim lands in Central Oregon. This application was also protested by Drake. The lands included were designated as Segregation List No. 19, an area of 56,006.90 acres.

¹⁶² “Hutchinson Again Here: Brings New Yorkers to Look Over His Irrigation Project,” (*The Bend Bulletin*, December 4, 1903), 3. The report said: “The result of their inspection was not made known before the party left for Portland Wednesday, but there was more or less talk about starting operations on a large scale in the spring [of 1904].”

¹⁶³ Oregon State Archives, Letter from A.M. Drake, Pilot Butte Development Company, to State Land Board, January 6, 1904, Desert Land Board Reclamation Records, no. 10-18, box 15, folder 2; Oregon State Archives, Letter from C.C. Hutchinson, Oregon Irrigation Company, to State Land Board, January 20, 1904, Desert Land Board Reclamation Records, no. 10-18, box 15, folder 2.

¹⁶⁴ Ibid. The requisites required having a number of documents filed showing matters including: having an engineer and selecting agent appointed by the land board, a map showing plan of contemplated irrigation and source of water, field notes of survey showing connections of termini with ditch, statement of available water, list of lands selected, contracts with the Secretary of Interior and State, application for contract with an estimate of reclamation costs and annual maintenance charge, and deposit for fees required by the State and the United States land office.

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financial ability to conduct the project.¹⁶⁵ The plans called for, among other actions, irrigating northeast from a diversion point, similar to Drake's plan.¹⁶⁶

The PBD Co. had another setback on January 30, 1904, when the saw mill producing lumber for flumes and other irrigation structures and buildings, burned. The mill had competed cutting rough lumber for the flume, but the lumber had not been planed. The mill crew saved the planer; however. The sawmill proper was "totally ruined and the engine was subjected to a great heat and many parts were ruined."¹⁶⁷

Also in January, 1904, Hutchinson, who had "done no actual construction work,"¹⁶⁸ brought Eastern capitalists and a civil engineer, Joseph Kelley, into the area for nearly a week.¹⁶⁹ The state engineer also arrived then to inspect the progress made by the PBD Co. and to estimate the value of its work.¹⁷⁰ Drake's contract with the state was for work over ten years, calling for at least ten percent of the project to be done each year, or about \$85,000 of construction to be conducted by the end of a year, beginning six months after signing the contract of May 31, 1902. By December 1903, a year-and-a-half had passed; Drake's deadline to produce 10% of the project had passed. If another company with a feasible plan and the financial ability to conduct the project was available, an unfavorable report on the extent of the PBD Co.'s construction by the state engineer to the State Land Board could result in Drake being out of compliance in his contract with the state and being compelled to sell out. By mid-February, Hutchinson and his capitalists were meeting with the State Land Board to take advantage of the situation.¹⁷¹

THE DESCHUTES IRRIGATION & POWER COMPANY TAKES OVER THE DELAYED PROJECT

Deschutes Irrigation & Power Company Buys Out PBD Co. and Oregon Irrigation Company in 1904

A timely consolidation and takeover of the rivals seemed like the best option. In an action, the *Oregonian* called "the most important step which has yet been taken in the work of reclaiming the vast empire of interior Oregon,"¹⁷² the Deschutes Irrigation and Power Company (D. I. & P. Co.) incorporated and representatives went before the State Land Board to announce they had bought out both the rights of the PBD Co. and the Oregon Irrigation Company in mid-February 1904. The D. I. & P. Co. was capitalized at \$2,500,000. The State Land Board was informed that the PBD Co.'s rights and contract were bought out at \$70,000; the rights of the Oregon Irrigation Company, owned by C.C. Hutchinson, were obtained at about half that amount. Drake's buyout price indicates he did not meet the \$85,000 objective (10% of the project's value) set in the contract with the state.

"We will have water running in our flumes inside of sixty days," boasted W.E. Guerin, Sr. "Inside of four months, and possibly in three months, we will have water on 25,000 acres of desert land."¹⁷³ Guerin was no

¹⁶⁵ Ibid.

¹⁶⁶ Ibid.

¹⁶⁷ "Two Fires: Sawmill Burns Here, Pilot Butte Development Company's Mill Destroyed Last Saturday Afternoon — Will Not Be Rebuilt," (*The DesChutes Echo*, February 6, 1904), 1. "Lumber to Build: Pilot Butte Mill Is Now In Full Operation," (*The Bend Bulletin*, May 13, 1905), 1. Rebuilding the mill to plane (finish) the flume lumber would take over four months.

¹⁶⁸ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10. Hutchinson had made a number of surveys.

¹⁶⁹ "Work to Begin Soon: The Oregon Irrigation Company Making Its Final Arrangements," (*The DesChutes Echo*, January 30, 1904), 1. Capitalists included Guerin, Turney, and Elliot. The engineer was J.G. Kelley, who would become the D. I. & P. Co.'s chief engineer.

¹⁷⁰ "State Engineer in Town," (*The DesChutes Echo*, January 30, 1904), 1. E.A. Hammond was the new State Engineer.

¹⁷¹ "Work Will Soon Begin: Oregon Irrigation Company Completing Arrangements with State Land Board," (*The DesChutes Echo*, February 13, 1904), 1. Capitalists included Turney, Guerin, Johnston, and Elliott. One or more provided letters from "Governor Herrick of Ohio and from a number of strong Eastern banks."

¹⁷² "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10.

¹⁷³ "Water In Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6; "Articles of Incorporation: Filed in the Office of State at Salem," (*The Sunday Oregonian*, February 14, 1904, Portland, OR.), 1. Deschutes Irrigation & Power Company, Portland, Oregon, was incorporated on February 10, 1904, by W.A. Munly, George H. Hill, and

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stranger to challenging projects. He built the Palmer cut-off on the Northern Pacific Railroad as president of the Seattle and San Francisco Railroad & Navigation Company, bringing the mainline into Seattle, and sold its rights to the Northern Pacific.¹⁷⁴ His promises that day stemmed from a career of successfully satisfying both railroad investors and government regulators. There was a message to investors in the 25,000-acre figure promised in three or four months: Lands would be irrigated in the time promised; irrigated lands would be selling soon; ten percent of the company's \$2,500,000 capitalization (investment), \$250,000, equaling one-third of the contract price with the state, would be returned to the company soon;¹⁷⁵ and the return on their investment was safe and forthcoming.¹⁷⁶ The promise was also made to potential settlers that the lands would be ready for farming soon. The State Land Board, consisting of the governor and the state's three other top elected officials, would have requested specific goals and a well-defined timeline.¹⁷⁷ It had been understood that negotiations were pending for consolidation of the two enterprises and the land board expressed satisfaction in the news, as it felt a contest between the two companies of certain water rights had resulted in not much progress being made, and that the irrigation work in the Deschutes Country should be undertaken under one management.¹⁷⁸ The primary components of the transaction were completed by mid-March.¹⁷⁹ The principal backers of the new enterprise were "understood to command unlimited means and intend to push the work to completion as rapidly as possible." They were largely interested in railroads and the oil and gas fields of Ohio and Indiana.¹⁸⁰ In addition to W.E. Guerin, Sr., of New York, the capitalists included J.O. Johnston and H.D. Turney, both of Columbus, Ohio. Johnston was general manager of the Columbus Gas Light and Heating Company, Columbus.¹⁸¹ Turney held investments in oil and gas and had operations in New York City.¹⁸² Portland stockholders included Harvey W. Scott, editor of *The Oregonian*, and J. Frank Watson,

E.B. Holmes, all of Portland; "The Pilot Butte Development Co. to Deschutes Irrigation & Power Co.," [Filed] March 14, 1904, vol. 2, pp. 449-452, (Deschutes County Clerk's Office, Bend, Oregon [Crook County Clerk's Office, vol. 12, p. 189]). Date of March 14, 1904, and sum of \$848,557.00 are indicated in document: "Reclaim Desert Lands: Large Company Will Operate in Crook County — Begin at Once," (*Daily Capital Journal*, February 15, 1904), 3; "Deschutes Irrigation & Power Co. Organized: P.B.D. Co. Sells Out," (*The DesChutes Echo*, February 20, 1904), 1.

¹⁷⁴ "Feeling In the East," (*The DesChutes Echo*, May 14, 1904), 1.

¹⁷⁵ Figures are as follows: 25,000 acres x an average of \$10 per acre = \$250,000, i.e. 10 percent of the capitalization; \$250,000 / \$848,557 (contract price) = 33.9 percent, i.e. 1/3 of the contract price would returned to the company immediately; therefore, the remaining irrigation development would occur rapidly, as well, and afterward profit would be realized. See following footnote for further explanation.

¹⁷⁶ "Concerning Water Rights," (*The DesChutes Echo*, (June 25, 1904), 1. "State View of Irrigation: What Official Biennial Report to the Legislature Says," (*The Bend Bulletin*, January 27, 1905), 4. This article indicates the price fixed ranged from \$2.50 per acre for tracts wholly unfit for cultivation to \$14.75 per acre for tracts all tillable and irrigable, the average being the amount fixed in the contract between the state and the company of \$10 per acre.

¹⁷⁷ Research at the Oregon State Archives did not identify any minutes or other documents associated with the February 1904, announcement which could illuminate these matters.

¹⁷⁸ "Water in Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6

¹⁷⁹ United States Circuit Court of Appeals for the Ninth Circuit, Frank R. Shinn and Louis G. Addison, and Frank R. Shinn and Louis G. Addison as a Committee for Certain Bondholders, *Complainants Appellees*, vs. The Deschutes Irrigation and Power Company, a corporation, A.F. Biles, Howard Contract Company, a corporation, Merchants Savings and Trust Company, formerly Merchants Investments and Trust Company, an Oregon corporation, *Respondents Appellees* vs. R.S. Howard, Jr., Receiver of the Title Guarantee & Trust Company, *Intervenor Appellant* vs. Alexander M. Drake and Pilot Butte Development Company, *Intervenors Appellees*, No. 1915, 15. The 1915 circuit court decision indicates that on February 12, 1904, a "Contract between A.M. Drake and Turney, Johnston and Guerin for rights of the Pilot Butte Development Co." was executed. The same day, "Assignment of Drake Contract by Turney and others to The Deschutes Irrigation & Power Company" was concluded. Also, that same day, "Assignment of rights of Oregon Irrigation Co. to The Deschutes Irrigation & Power Co., viz., its capital stock" was affected. On March 14, 1904, "Conveyance by Pilot Butte Development Co. to The Deschutes Irrigation & Power Co., of rights of way, etc." was finalized. The same day, "Assignment of Contract with State Land Board by Pilot Butte Development Co. to The Deschutes Irrigation & Power Co." was completed.

¹⁸⁰ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904, Portland, OR.), 10.

¹⁸¹ *Proceedings of the Ohio Gas Light Association*, (Columbus: Spahr & Glenn, 1904), 661. Proceedings include seventeenth annual meeting of 1901, eighteenth annual meeting of 1902, and nineteenth annual meeting of 1903. Index of association members indicates Johnston, John O., General Manager, The Columbus Gas Light and Heating Company, Columbus, Ohio. Elected to membership March 21, 1900;

¹⁸² *Ibid.*, 667. Proceedings include seventeenth annual meeting of 1901, eighteenth annual meeting of 1902, and nineteenth annual meeting of 1903. Index of association members indicates Turney, Henry D., Director and Member of Association's Executive Committee, Columbus, Ohio. President, Gas Lighting and Heating Company, 80 Broadway, New York, NY. Elected to membership March 21, 1900; *Natural Gas Journal*, (vol. 5, July 1911), 39. (Google Book). In or about 1911, Henry D. Turney was the president of Columbia Gas & Fuel Company in Columbus, with 29,000 customers.

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president of the Merchants Bank. Others were R.H. Eliott, mayor of Birmingham, and chief engineer of the Louisville & Nashville Railroad; Geo. W. Sinks, president, Desher National Bank; and John Desher, both of Columbus. J.O. Johnston, elected vice president, would be the project's general manager. His work in the gas fields of Ohio was highly respected and his experience working in rock would be an asset to the group.¹⁸³ C.C. Hutchinson was a stockholder, board member, and land commissioner.¹⁸⁴ W.E. (Eugene) Guerin, Jr.,¹⁸⁵ would be a part of the vanguard, involved in establishing and managing many essential settlement businesses, and in promotion of the area. Drake retained ownership of the townsite and other properties and rights.¹⁸⁶

J.O. Johnston, Vice President and General Manager, D. I. & P. Co.

J.O. Johnston drew from his experience in the oil and gas industry in Ohio to develop the specifications for the steam-powered drills and to devise a system to use them effectively. He was not a college-trained geologist or engineer. However, his practical geological knowledge, understanding of engineering, and, importantly, his acumen out in the field made a significant difference in the successful outcome of the Central Oregon Project. His background in natural gas field development did not provide experience with lava as it is found in the Deschutes Country, but he had a respected, proven record of success working under unique geological conditions.¹⁸⁷ His drilling experience proved itself useful to the project, too, in the difficult, elemental rock of the Deschutes-Columbia plateau, as he determined the use of steam-powered drilling was imperative in the rock near Bend. According to the 1890 *Geological Survey of Ohio*, J.O. Johnston is credited with the discovery of the most important gas field in Ohio, up to that time. The Thurston field was "by far the largest and most important yet found established on the new gas rock." It comprised parts of four townships. "The discovery of the field is due, more than to any one person, to Mr. J.O. Johnston, Superintendent of the Central Ohio Natural Gas Company, an operator in the eastern field and also practically acquainted with the new oil field of northern Ohio," said the report.¹⁸⁸

¹⁸³ "The Deschutes Irrigation and Power Company at Bend," (*The Pacific Homestead*, Salem, OR., November 10, 1904), 70; "Local Notes," (*The DesChutes Echo*, February 27, 1904), 3. Named to the board of directors were H.D. Turney, J.O. Johnston, R.F. Guerin (a son of W.E.), Harvey W. Scott, E.E. Lytle, J.F. Watson and C.C. Hutchinson. Officers elected were H.D. Turney, president; J.O. Johnston, vice-president and general manager; and R.F. Guerin, secretary and treasurer.

¹⁸⁴ *Ibid.*; United States Circuit Court of Appeals for the Ninth Circuit..., 1915, 15. The document indicates "Assignment of rights of Oregon Irrigation Co. to The Deschutes Irrigation & Power Co., viz., its capital stock," made C.C. Hutchinson a stockholder.

¹⁸⁵ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 804. Shaver indicates W.E. Guerin, Jr. was a prominent banker and leading businessman of Bend, Crook County, matriculated in Cornell University, from which he graduated with honors. Admitted to the Ohio bar in 1893, he was elected to the state legislator of the seventy-fifth assembly of that state.

¹⁸⁶ "Untitled," (*The Bend Bulletin*, April 29, 1904), 4. Indicates Drake was still the owner of the Townsite; "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10; Pilot Butte Development Company, Plat of Bend, Filed June 7, 1904. The townsite plat was not filed until almost four months after this announcement.

¹⁸⁷ Orton, Edward, State Geologist, *Geological Survey of Ohio*, (Columbus: The Westro Co., State Printers, 1890), 241-42. For example, in Ohio, while engaged in the work of exploration, Johnston studied the axes of the anticlines and other factors to determine the points to drill natural gas wells.

¹⁸⁸ *Ibid.* A company was soon formed in Columbus in which abundant capital, energy, and business sagacity were joined. The well was drilled deep into the Clinton limestone. As a result, a large nearly contiguous territory was held by his company. In 1889, the Columbus city council granted a franchise that brought gas-powered lights and heat, with 45,000 customers, and fuel to numerous large industrial users; Waples, David A., *The Natural Gas Industry in Appalachia: A History of the First Discovery to the Tapping of the Marcellus Shale*, (Jefferson, North Carolina: McFarland & Co., Second Edition, 2012), 110. According to the author: "In 1888, the Thurston gas field was discovered between Lancaster, Fairfield County, and Newark, Licking County. The following year, gas from the Clinton sand wells drilled at Newark was used in the town, and a ten-inch line was laid to the capital at Columbus in Franklin County."

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J.O. Johnston¹⁸⁹

Plans for Settlement and Agricultural Development

At the time of the D. I. & P. Co. transaction, on February 14, 1904, the *Portland Oregonian* summarized the benefits of the project and pronounced the significance of settlement and agricultural development in the Deschutes country:

"It means that 250,000 acres which are now non-productive will eventually be made to sustain a population of several thousand persons, and the building of one or more thriving towns. It means a large addition to Oregon's crop production, and the extension of Portland's commercial territory. More than all it means a practical demonstration of what the investment of capital in irrigation projects can do for a large portion of the state which is now practically worthless by reason of its arid character. It is an opening wedge which will be followed by the construction of many other irrigation systems and the reclamation of much of Oregon's domain. A thoroughly organized immigration bureau will be organized, and a large amount of money will be spent in advertising the lands throughout the United States and Canada."

The company's inducements, including the price per acre, which was much lower than elsewhere, was expected to result in heavy immigration. The company was operating its own stage line to and from Shaniko, 82 miles to the north by way of Prineville on a rough, dirt road, to bring in people who were interested in purchasing land in the segregation.¹⁹⁰ Prineville was the Crook County seat and the largest city in Central Oregon. It was platted in 1877. Shaniko was the terminus of the Columbia Southern Railway, which entered Central Oregon from Biggs on the Columbia River in 1900. General Manager J. O. Johnston stated, "Our purpose is to employ immigration agents, if necessary, to find settlers for the land thus reclaimed. We will form colonies when we can and induce individual settlers to come. We will lose no time in putting that arid land into condition to raise alfalfa and other crops."¹⁹¹

The D. I. & P. Co. followed the Carey Act process relative to the Pilot Butte Development Company's Segregation List No. 6. In a May 14, 1904 DesChutes Echo article, the company explained that the segregation had placed a lien upon all lands in it, covering the cost of bringing water through its system to each 40-acre tract, amounting to an average lien of \$10 per acre. The State Land Board apportioned the total amount of the lien on each 40-acre tract according to its agricultural value. The cost of bringing water to the land was estimated by both the state engineer and the company engineer. A 40-acre tract with 40 irrigable acres cost the settler/farmer \$590.00, the lien the company held on it, or \$14.75 per acre. A price was placed

¹⁸⁹ Photo from the *Progressive Men of Northern Ohio*, 1906¹⁸⁹

¹⁹⁰ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10. The new company would "offer lands varying from \$5 to \$15 per acre, guaranteeing water rights," and "irrigated lands elsewhere which offer no greater advantages are selling as high as \$300 per acre."

¹⁹¹ "Water In Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6.

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on each 40-acre tract, depending upon the number of irrigable acres in each. Not all the land was farmable or irrigable. When the amount of the lien was paid, the purchaser secured release of the lien and a perpetual water right. When the purchaser presented the release of the lien to the State Land Board, it issued a deed or patent to the land to the purchaser. The new property owner paid \$1 per year per acre for the perpetual water right. In the example of 40 irrigable acres, this amounted to \$40 per year.¹⁹² As costs to construct the system increased over time and unexpected challenges arose, the irrigation companies re-negotiated the contract with the state periodically to allow them to sell the land for higher prices.

1904, WORK PROGRESSES ON THE CONSTRUCTION OF THE PILOT BUTTE AND CENTRAL OREGON CANALS

Equipment, Supplies, Workforce and Teams Buildup, 1904

The Central Oregon Project was summarized in 1904. "Expert engineers have pronounced the headgate of this project the finest in the United States," said the *Morning Oregonian* of February 16, 1904. "The diversion works are in a deep canyon among immense rocks, which afford admirable protection to the permanence of the intake, which leads to a heavy rock cut 20' in depth to the head of the flume, where the surplus water will be turned back into the river."¹⁹³ "Water was diverted from the river to the east bank of the Deschutes River about three miles above Drake's home.

On April 1, 1904, the D. I. & P. Co. officially took active charge of all irrigation work on the Central Oregon Project.¹⁹⁴ The company needed to assemble resources before the flume could be finished and excavation for the PBC could begin on a large scale. Key personnel were hired. Joseph G. Kelley, a hydraulic engineer formerly with the U.S. Army Corps of Engineers, became superintendent of the PBC construction, succeeding Wiest, who became his assistant.¹⁹⁵ Charles M. Redfield joined them. Soon Redfield supervised the building of the COC and became chief engineer for the D. I. & P. Co.¹⁹⁶ The purchasing agent was to buy more teams of horses and outfits, and to make large purchases of equipment, supplies, and foodstuffs in Prineville.¹⁹⁷ Great amounts of meat and vegetables were required by the construction crews and were provided by suppliers bringing wagon loads of vegetables from Haystack, Oregon, forty miles away.¹⁹⁸ Hay for the horses, food for the men, and water for both were constantly required. A timekeeper and paymaster were employed, and the firm's entire auditing department was brought from Portland.¹⁹⁹ Hundreds of laborers and teamsters along with their horses and wagons were hired.²⁰⁰ Boarding for crews was arranged until tents and other camp facilities and supplies arrived.²⁰¹

Teams of horses were in demand to pull scrapers and transport rock and construction materials.²⁰² Wiest traveled over the Cascades Mountains to the Willamette Valley to buy horses.²⁰³ Others rounded up wild horses on the high desert and broke them for work. At one point in 1904, before the new company was to

¹⁹² "Feeling In the East," (*The DesChutes Echo*, May 14, 1904), 1.

¹⁹³ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904, Portland, OR.), 10.

¹⁹⁴ "New Company In Charge: Deschutes Irrigation & Power Company Took Formal Control Yesterday," (*The DesChutes Echo*, April 2, 1904), 1. Hutchinson became the selecting agent of lands to be reclaimed for the state relative to the D. I. & P. Co. work.

¹⁹⁵ Ibid.

¹⁹⁶ "Local Notes," (*The DesChutes Echo*, February 27, 1904), 3; "Local Notes," (*The DesChutes Echo*, March 5, 1904), 3; "Local Notes," (*The DesChutes Echo*, May 14, 1904), 3.

¹⁹⁷ "Work on the Canal," (*The Bend Bulletin*, April 15, 1904), 1; "Local Notes," (*The DesChutes Echo*, April 9, 1904), 1.

¹⁹⁸ "Local Notes," (*The DesChutes Echo*, May 6, 1904), 3.

¹⁹⁹ "Local Bits," (*The Bend Bulletin*, July 8, 1904), 5; "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904, Portland, OR.), 10.

²⁰⁰ "Local Notes," (*The DesChutes Echo*, April 9, 1904), 1.

²⁰¹ "Irrigation Activities," (*The DesChutes Echo*, March 12, 1904), 1.

²⁰² "Local Notes," (*The DesChutes Echo*, March 26, 1904), 3. When the Russo-Japanese War broke out in February 1904, demand for cavalry horses by the Japanese rendered the horse market very costly, making the PBC construction more expensive. Seventy-five tons of high-grade hay was purchased for the company stables in March; "Local Notes," (*The DesChutes Echo*, May 14, 1904), 3. In May, as hay prices reached exorbitant prices and was almost unobtainable, construction costs grew.

²⁰³ "Wants Valley Horses," (*Oregon Capital Journal*, July 25, 1904), 5.

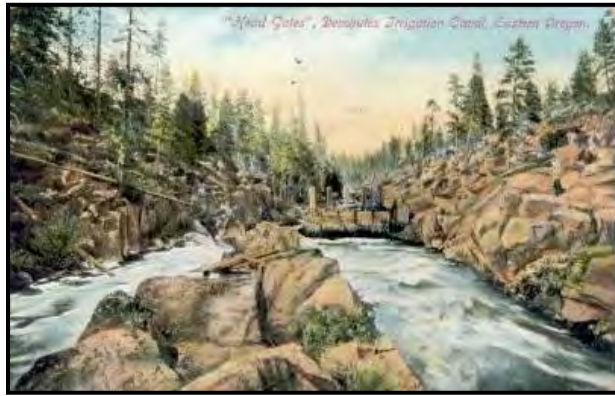
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commence work, seventy-eight wild horses were captured and 'broken' for scraper teams. In half-a-day, a range horse was 'broken' for pulling scrapers and further training came in the regular course of its work. Three men were employed to break horses.²⁰⁴



**"Head Gates," Deschutes Irrigation & Power Company
Postcard of diversion point on the Deschutes River, ca. 1904²⁰⁵**

A vast amount of resources was hauled by horse teams pulling loaded wagons from the railroad terminus at Shaniko. The treacherous trip took at least two days and could take much longer to pull heavy wagons loaded with equipment to the project site. Nielsen, et al., the region's pioneer road historians, describe one leg of the Shaniko-Prineville-Bend route: "Most freight outfits consisted of three wagons pulled by eight-to-twelve horses. At the base of Hunter Grade, the last wagon had to be dropped. After the first two wagons were pulled to the top, the horses had to return to the bottom to pull up the third wagon."²⁰⁶ Loads coming into the project area aggregated nearly 50,000 pounds (25 tons) each.²⁰⁷

There was infrastructure to build including bridges, camps, and structures. The Deschutes Lumber Company increased its production to serve the project's timber and lumber needs²⁰⁸ while Drake rebuilt his PBD Co. lumbermill.²⁰⁹ Bridges were built across the canals where the county roads and canals would intersect.²¹⁰ The company built an office, a club house, stables, a blacksmith shop, a granary, a warehouse, a powder house, a cook house, a mess hall, a barn, buildings at its experimental farm, and a residence for management.²¹¹

Progression of Work, 1904

After the D. I. & P. Co. took over the project, the joint flume to serve both canals near the intake was successfully tested in March 1904, having been upgraded to the satisfaction of the new owners.²¹² It was not until early April when snow was off the ground and the ground had thawed out that canal construction

²⁰⁴ "Breaking Wild Horses," (*The Bend Bulletin*, October 7, 1904), 1; "More Horses for Ditch Work," (*The Bend Bulletin*, September 30, 1904), 1. Horses were purchased when they were available. During spring, one-hundred tons of hay was stacked at the Forest ranch on the Crooked River, but high water made it impossible to cross the river and bring the fodder to the horses.

²⁰⁵ 1904 postcard from the Bowman Museum Collection.

²⁰⁶ Nielsen, Lawrence E., Doug Newman, and George McCart, *Pioneer Roads in Central Oregon*, (Bend: Maverick Publications, 1985), 99-100. A road up Hunter Grade was necessary because Hay Creek runs through a spectacular, impassable gorge; "Local Notes," (*The DesChutes Echo*, March 5, 1904), 3. Any precipitation, from early fall to late spring, resulted in "veritable seas of mud" that presented additional difficulties on the route; "Local Notes," (*The DesChutes Echo*, May 6, 1904), 3.

²⁰⁷ "To Enlarge Flume," (*The Bend Bulletin*, August 12, 1904), 1. Freighters were bringing in loads from across the state; "Local Notes," (*The DesChutes Echo*, April 9, 1904), 1. J.O. Johnston, vice-president and general manager, purchased the first automobile to make an appearance in Crook County to facilitate his business travel.

²⁰⁸ "Local Notes," (*The DesChutes Echo*, May 28, 1904), 3. The lumber company purchased a new Samson turbine water wheel; "Local Notes," (*The DesChutes Echo*, March 26, 1904), 3.

²⁰⁹ "Local Notes," (*The DesChutes Echo*, March 19, 1904), 3; "Local Notes," (*The DesChutes Echo*, April 2, 1904), 3.

²¹⁰ "Local Notes," (*The DesChutes Echo*, April 16, 1904), 3; "Work on the Canal," (*The Bend Bulletin*, April 15, 1904), 1.

²¹¹ "More Than \$100,000," (*The Bend Bulletin*, January 6, 1905), 1.

²¹² "Irrigation Activities," (*The DesChutes Echo*, March 12, 1904), 1. It is possible that the D. I. & P. Co. decided to make upgrades to the flume they acquired.

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began.²¹³ Fourteen survey crews were sent to the field in advance of the actual canal construction. The survey crews drew exacting 10-foot contours around the route selected earlier for the main canal and along land in Segregation List 6, and set stakes for the route, so construction teams would know where to locate the canals, laterals, and service ditches. The entire system would flow by gravity. The canals needed to be higher in elevation than the laterals, while the laterals needed to be higher than the ditches to the settlers' land.

Construction began in earnest on the PBC. "The excavation of the canal "down to Wiest's homestead [west of Bend] is nearly completed," a later report said.²¹⁴ However, water did not arrive through the approximately three miles of open canal to Wiest's property until June 3, 1904. The *Bend Bulletin* recognized "this diversion of water from the PBC is historic because it mark[ed] the first actual use of it on the soil to produce crops."²¹⁵ Thus, the company had achieved the first part of what it promised to the State Land Board in February. It had water running in its flume from the headgates at the river up to the future townsite of Bend, irrigating Wiest's forty acres. But it did not have water on 25,000 acres, the second promise made in February. That acreage was north between their position in June 1904 and the Crooked River Canyon. The stretch in the PBCHD, at miles 6 to 7.5, was nearly solid rock, with twists and turns, and had to be completed before water could flow past it into the northern half of the canal, where other crews were progressing quickly.

During the summer of 1904, four crews, at four camps, were working at different points on the PBC.²¹⁶ Work was progressing slower than expected and more laborers were needed. In mid-August a report from Eugene, Oregon, indicated that at the completion of sewer construction contracts, the city would release several men for work on the PBC. The superintendent went to Eugene to hire laborers.²¹⁷ Nearing the end of September, the company had about 200 men and 100 horse teams at work and was trying to double the force as soon as possible. About 50 Italian laborers were brought in for the upper PBC and more were expected to come. Twenty Americans were clearing the right-of-way for the PBC. More than 100 men were at the lower construction camp in the rock. Two surveying and engineering parties were still in the field making topographical examinations and contour maps of the country. The company bought 50 horse teams to put on the canal work. Scrapers and a great quantity of food and general supplies were being received by railroad at Shaniko. The company was pushing the freighters to bring in more.²¹⁸

More Problems on the Headgate and Shared Flume

It became apparent that the *Oregonian* newspaper's February 16, 1904 exuberant praise for the engineering on the headgate had been premature. The headgate and flume system was not able to carry enough water for the two canals it was to serve. Even if all the water was diverted for the PBC, it would be underserved. The intake and flume must be significantly enlarged. In early October at the headgate a force of rock men was blasting out a new intake, engineers and surveyors were taking levels and guiding workmen, and the flume was being enlarged to carry water in the COC that would soon be under way. In all, about 350 men and 100 horse teams were employed by the company at various places along the canal.²¹⁹ Near the end of October the headgates were closed, bringing to a standstill water service to the future Bend townsite, and the work of enlarging the channel through this stretch was expected to take two weeks. The capacity of the 6,680' flume near the headgate was more than tripled. It was carrying only 80 cubic feet per second (cfs) for the PBC.²²⁰ It originally was 5'3" wide and 3'9" deep. (Today the PBC carries 400 cfs.) Therefore, the flume was enlarged to

²¹⁶ New Company in Charge: Deschutes Irrigation & Power Company Took Formal Control Yesterday," (*The DesChutes Echo*, April 2, 1904), 1.

²¹⁴ "Work on the Canal," (*The Bend Bulletin*, April 15, 1904), 1.

²¹⁵ "First Water on Soil," (*The Bend Bulletin*, June 3, 1904), 1. Chief engineer J.G. Kelly resigned the same week.

²¹⁶ "Local Notes," (*The DesChutes Echo*, March 5, 1904), 3.

²¹⁷ "To Enlarge Flume," (*The Bend Bulletin*, August 12, 1904), 1.

²¹⁸ "Pushing the Work," (*The Bend Bulletin*, September 23, 1904), 1. C.M. Redfield was the new chief engineer; "C.M. Redfield Dies Suddenly," (*The Bend Bulletin*), March 19, 1924), 1. Article indicates Redfield had come to work for the company in April 1904, apparently taking over the chief engineer position in early June 1904, when J.G. Kelly resigned.

²¹⁹ "On the New Flume," (*The Bend Bulletin*, October 7, 1904), 1.

²²⁰ "Digs Ditch Bigger," (*The Bend Bulletin*, October 21, 1904), 1. The canal was enlarged to carry 250 cubic feet per second rather than 80 cfs. New calculations had concluded more water was needed than the PBD Co. had initially determined.

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16' wide by 5' tall. Ten feet were added to the flume's width and a foot to its depth, increasing its carrying capacity to 650 cubic feet per second, enough to irrigate 85,000 acres, it was thought at the time.

A part of the miscalculation in sizing the flume and canals was due to the 'surprising tenacity of the soil.' The additional excavation that was expected to be done naturally by the water when it was sent through the channel failed. It was anticipated during construction that after the laborers and horse teams shaped the canal bed, the water would be let into the canals and it would cut the channel deeper, but that did not turn out to be the case. The water flowed over the dry soil and did not move it. "The land holds up against it and must be dug away with scrapers, demolishing pretty effectively the old bugbear that the Deschutes soil is so light and loose that it will not even give direction to streams of water."²²¹ The unexpected excessive loss of water through rocks, caverns and fissures in the canal beds, the roughness of the rocky canal bed in the stretches near Bend and the inconsistent shapes, width and depth of the canals, also contributed to the problems in accurately sizing the structures.



1923 photo of men standing in the enlarged Central Oregon canal flume.²²²

John Dubuis, in the "Report to the Desert Land Board on Central Oregon Project" wrote, "Canals have been built wider and more shallow than proper, to avoid rock excavation. Where natural depressions were used, the water has been allowed to spread over large areas. Since the loss of water is to a certain degree directly proportional to the wetted area, some of the excess loss is the natural result of this excess area."²²³ He was saying that the canals were built to be much wider and shallower than they were designed to be, and that the larger surface in the beds resulted in more seepage.

During two weeks in October, 160 men on the PBC were moved south from the end of the canal to two camps at the southern rocky half to enlarge the canal so it could convey 250 cubic feet per second for the spring 1905 irrigation season. Construction of the COC had just begun 'with a heavy force of men'²²⁴ at the end of the intake flume. The COC was to convey 400 cubic feet per second from the enlarged flume as it headed east toward Powell Butte. (It conveys 530 cfs today.)

The Bend area was the most difficult terrain of the entire irrigation system. Rock outcroppings and nearly solid rock below the thin layer of soil and unexpected lava tubes were encountered in the first third of the PBC and the first ten miles of the COC, where the canals needed to convey the full amount of water and be wide and deep. Those conditions and the rolling terrain caused a challenge for both water volume calculations and construction. The company discovered that it would be more time consuming than anticipated to construct the canals through the rock and would require blasting as well as digging and scraping.

²²¹ *The Bend Bulletin*, October 21, 1904, 1, "Digs Ditch Bigger."

²²² 1923 photo from the Deschutes County Historical Society Collection.

²²³ Dubuis, John, Report to Desert Land Board on Central Oregon Project, 1914, 5.

²²⁴ *ibid*

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At this time, late in 1904, winter approached at 3,600' above sea level at the foot of the Cascades. The company feared that snow, ice, and freezing temperatures could quickly halt all construction on both canals until spring. The February 1904 promises of the D. I. & P. Co. to have water on thousands of acres of desert land would soon be a year old. Being behind in its schedule, and the smaller half of the PBC farther north completed, the company quickly had to meet the challenge posed by the geological conditions presented in the rocky stretch in the PBCHD and prove to investors, the State Land Board, and to potential settlers that they were committed to completing the canal in time for spring farming in the Deschutes country. J.O. Johnson knew he would meet ten miles of the same rock near Bend on the COC. A new approach to the rock was necessary.

Construction Utilizes Technology, Man-and Horse-Power, 1904-05

Fortunately, the D. I. & P. Co. was able to take advantage of a propitious period in the history of irrigation and land development technology. A revolution in horse-drawn earth moving came in 1883. John Porteus, a Fresno Township blacksmith, invented the Fresno scraper. "The device was a metal scoop with unique steel runners, pulled by two to four draft animals. Like the skip scraper, the teamster controlled the depth of cut from behind. However, the Fresno could be skidded along for reasonable distances and dumped on a controlled basis. Porteus' invention was an impressive improvement over the skip."²²⁵



Men using horse-drawn Fresno scrapers²²⁶

By using these scrapers with the ability to haul material over a short distance and to control the dump, the company was able to not only excavate loose canal material, but was also able to build canal embankments where they wanted them, and to the specifications they needed them to be by systematic dumping.

John H. Lienhard, PhD, Professor Emeritus of Mechanical Engineering and History at the University of Houston explains the operation of the Fresno, a designated Historic Mechanical Engineering Landmark:

"Porteus' C-shaped scraper had a blade along the bottom. It scooped as it was pulled along. [Different from all predecessors], this machine rode on runners and could be tilted. An operator walking behind it could change the angle. When it was full, he tilted it back and let it slide on the runners. He could dump as he passed over low spots and smooth out terrain. He could vary the angle of attack to match the [cut required]"²²⁷

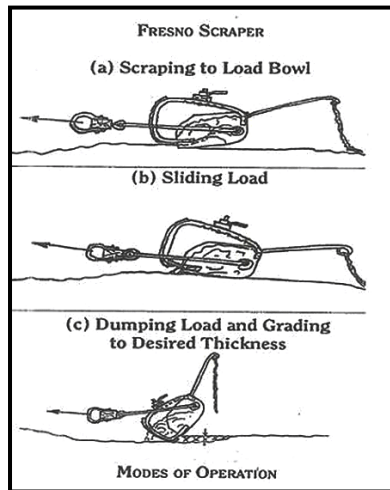
²²⁵ Ibid. 'Slip' and 'skip' are interchangeable terms, referring to the same type of equipment.

²²⁶ 1904 photograph courtesy of the Deschutes County Historical Society.

²²⁷ University of Houston, "No. 353: The Fresno Scraper," *Engines of Our Ingenuity*, (Accessed March 27, 2015); University of Houston, "Dr. John L. Lienhard," *Engines of Our Ingenuity*, (Accessed March 27, 2015). Lienhard received BS and MS degrees from Oregon State and the University of Washington, his PhD from the University of California at Berkeley, and holds two honorary doctorates; San Joaquin County Historical Society and Museum, "Designating the Fresno Scraper as an Engineering Landmark," (Accessed March 27, 2015). On March 26, 2011, in a ceremony at the Museum the American Society of Mechanical Engineers (ASME) designated the Fresno Scraper as a Historic Mechanical Engineering Landmark. The society noted the Fresno was used throughout the world, including in the construction of the Panama Canal, and was the forerunner of virtually all earthmoving implements.

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Fresno Scraper Modes of Operation²²⁸

Mechanical engineers Davis and Wilson wrote that the Fresno scraper can be used for hauls of any distance, but it is not very advantageous for long hauls. It is also suitable for making ditches, dikes, and any other scraper work where the haul is not great enough to require wheels.²²⁹

However, the most significant utilization of technology, steam-powered drilling, was used in the excavation of the most difficult basalt rock, beginning in November 1904. General Manager J.O. Johnston understood the difficulty deep lava flows would present to construction and had commented on it in February 1904: "That lava bed is very rough, requiring expensive work in cutting out rock."²³⁰ Typically, steel miners' drills were pounded with sledge hammers to drill holes for blasting charges. After a blast was detonated, teams of men and horses with Fresno scrapers, along with men and shovels, excavated shattered rock to bring the canal to grade.²³¹ Being familiar with building railroads and drilling for gas, the D. I. & P. Co. invested in the best equipment for the job to be done to make the work more efficient and timelier. J.O. Johnston stated, "We have paid cash and a lot of it, for everything as we went along, and we expect to continue this course in the future until every detail of the reclamation work is completed."²³²

By the turn of the twentieth century, steam power propelled eighty percent of the factories in the nation. It was portable and allowed regulation of the power that was generated.²³³ The D. I. & P. Co. purchased two portable steam boilers, "specially made for the work of this company in the Bend section "and shipped from Columbus, Ohio" to provide power for operating rock drills. One boiler was twenty horsepower and drove four drills. The other was six horsepower and drove one. Together, they could bore 400' per day in the hard, demanding strata of lava, where typically it would take three men to bore 18' to 20' per day. The drills were 'worked by steam direct from the boiler, the steam serving the same purpose as compressed air in another kind of drilling

²²⁸ Boulder Community Network, Boulder County, Colorado, *The Ditch Project: 150 Years of Ditches—Boulder's Constructed Landscape*, (Accessed March 27, 2015). Image, Courtesy of American Society of Mechanical Engineers; Davis, Arthur Powell, D.Sc., and Herbert M. Wilson, C.E., *Irrigation Engineering*, (New York: John Wiley & Sons, Seventh Edition, 1919), 109.

²²⁹ American Society of Mechanical Engineers; Davis, Arthur Powell, D.Sc., and Herbert M. Wilson, C.E., *Irrigation Engineering*, (New York: John Wiley & Sons, Seventh Edition, 1919), 109.

²³⁰ "Water In Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6.

²³¹ Coe, Urling C., *Frontier Doctor*, 13-14. Coe describes injuries from rock and dynamite and medical attention he provided.

²³² "Cheap Land Gives Start to Redmond," (*The Redmond Spokesman*, August 21, 1952), 2. Article suggests there were some 'slips,' another type of excavation equipment. Indications are this was not the case in the nominated section; Davis, Arthur Powell, D.Sc., and Herbert M. Wilson, C.E., *Irrigation Engineering*, 233. The authors indicate the Fresno scraper is the most satisfactory in handling tough earth too heavy to be handled by other types of scrapers; "D. I. & P. Co. Is Here to Stay," (*Crook County Journal*, April 9, 1905), 1.

²³³ Preston, Daniel, "The Industrial Age: Steam Technology," (*20th Century United States History*, New York: Harper Perennial, 1992), 6.

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contrivance' noted the report.²³⁴ "Monster Drills at Work," headlined the *East Oregonian*. "Power will be generated for driving four drills into lava rock. The two boilers with their big steel drills will do more work in a day than 300 men."²³⁵

Before these machines were brought into operation, General Manager J.O. Johnston calculated that a "force of 388 rock men would be required to do the necessary work." The impossibility of getting such a force led Johnston to devise this method of drilling powder holes in the rock. Hand drilling was used where there was little drilling to be done, but the big ledges were 'bored by the steam-powered drills.' The report indicated the shipment filled an entire railroad car and was hauled by freighters from Shaniko in multiple wagon loads to the work site, taking several days to get all the equipment delivered.²³⁶

The procedure to form the two canals was more than just blasting, scraping, and dumping repetitively. Canal banks were carefully built in successive layers of compacted rock and soil and kept as level as practicable. The travel over the canal banks during construction was performed in a manner to distribute the compacting effect of the horses and scrapers to the best advantage possible.²³⁷ In the fall of 1904, 400-500 men and 215 horse teams were working on the two canals.²³⁸ It is estimated that 215 teams moved 214,500 loads with almost 1,000 loads per team over approximately 25 straight days of work. This would have amounted to 40 loads per day per team/scrapper, or five per hour over an eight-hour day.²³⁹ Hundreds of men used shovels and laid riprap by hand.

Completion of the Pilot Butte Canal

It was pivotal to have the steam-powered drills to excavate lava flows. Otherwise, the timely completion of the entire PBC would have been jeopardized. The D. I. & P. Co., nor any other company, could have assembled and fed a force of 388 rock men estimated to be needed to do the necessary work by hand. Additionally, it was crucial to amass a very substantial workforce and several hundred horse teams. The PBCHD was the 'make or break' part of the project on which the future of the D. I. & P. Co., the cities of Bend and Redmond, and the agricultural potential of the Deschutes Country rested. Failure in the project management and excavation of this key piece would have effectively terminated all the broader, more extensive plans for the settlement and agricultural development of the Deschutes Country. The D. I. & P. Co. did have an extraordinary amount of capital, exceptional expertise in the utilization of technology, and enormous man- and horse-power to find a successful methodology for dealing with the rock plus meeting schedules and deadlines set by the State.

On February 10, 1905, the challenges had been met, work was finally done, and water could flow in the PBC to its terminus just south of the Crooked River for the 1905 irrigation season. The water was let into the PBC on March 5, 1905.²⁴⁰ At the end of March *The Bend Bulletin* reported the company's investment in the previous Twelve months as \$500,000,²⁴¹ equivalent to over \$12 million in 2017 dollars.²⁴² The construction of laterals branching off the PBC, bringing water to farmers, began in April 1905.²⁴³

²³⁴ "To Drill by Steam," (*The Bend Bulletin*, November 18, 1904), 1.

²³⁵ "Monster Drills at Work," (*East Oregonian*, November 28, 1904), 8. Originally in undated *Crook County Journal*.

²³⁶ "To Drill by Steam," (*The Bend Bulletin*, November 18, 1904), 1.

²³⁷ Davis, Arthur Powell, D.Sc. and Herbert M. Wilson, C.E., *Irrigation Engineering*, 557. Specifications for constructing embankments in this Civil Engineer's book indicates layers were generally not to exceed 12" in thickness.

²³⁸ "Pay Back to Old Figures: Men Don't Like It and Many of Them Quit," (*The Bend Bulletin*, March 17, 1905), 1. Figures are based on numbers from the article indicating that as the result of the reduction in pay about 200 men and 125 teams left the canal work in the first week of March, leaving about 200 men and 90 teams on the work.

²³⁹ Steam drills arrived just after the first week of November. Assuming all team/scrapper work began by Friday, November 11, 1904, and concluded on or about December 5, 1904, provides twenty-five days. 214,500 loads / 215 teams/scrapers = 997.67 loads per team. 997.67 loads per team / 25 days = 39.9 loads per day, per team/scrapper. Or, 40 loads per day over an 8-hr. day = 5 loads per hour for each team/scrapper; Oregon State Archives, Desert Land Board Reclamation Records, Deschutes Irrigation & Power Co., no. 37-43, box 15, folder 10. Letter, J.O. Johnston, vice president and general manager, Deschutes Irrigation & Power Company, Columbus, Ohio, December 5, 1904, to G.G. Brown, Clerk, State Land Board, Salem, Oregon. General Manger Johnston indicates 400-500 men had been at work; *Timedate.com*. Including December 5 as the end date provides 25 days.

²⁴⁰ "Hundreds at Work," (*The Bend Bulletin*, March 10, 1905), 1. Article indicates water turned into canal on March 5, 1905.

²⁴¹ "Still Bend Is Growing," (*The Bend Bulletin*, March 31, 1905), 4.

²⁴² Federal Reserve Bank of Minneapolis, "CPI Calculator Information," (Accessed March 30, 2015). Using the Consumer

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1904 -1914, CENTRAL OREGON CANAL DESIGN AND CONSTRUCTION, FLUME COLLAPSE

Progression of Work on the Central Oregon Canal

On September 4, 1904, a Bend Bulletin article said, "Work is being pushed rapidly on the right-of-way of the new canal south of town, five miles of which has already been cleared." The October 7, 1904 *The Bend Bulletin* reported that 350 men and 100 horse teams are living in tented camps and are employed by the construction work of the D. I. & P. Co., finishing the middle rocky portion of the PBC, enlarging the southern end of the PBC, enlarging the wooden intake flume, blasting rock in the intake, and constructing the COC. The article says, "...the COC will be fed 400 cubic feet a second from the enlarged flume. The first plan was to feed the COC from a flume to be taken out at Lava Island, five miles above the Pilot Butte intake. But the plan was recently modified to ma[k]e the one enlarged flume supplied the two canals. The COC now starts at the foot of the flume and keeps to the higher ground. For a mile or so, it stays beside the PBC, but when it gets out past the rim rock, it bears to the east and will extend out to Powell Buttes." The October 21, 1904 *The Bend Bulletin* said, "Work on the COC is pushed with a heavy force of men near the foot of the flume. That work will not in any way be slackened for the enlargement of the Pilot Butte Canal." In November 1904, crews and horse teams were moved from the PBC project to start clearing the first ten miles of the route for the COC, below the wooden intake flume, while the fall weather lasted.

On January 13, 1905, the front-page article in *The Bend Bulletin* exclaimed that the COC will run in the old Dry River bed. It said, "The well-marked old river channel reaching across Central Oregon half way between Bend and Prineville will again carry a volume of sparkling water next summer. For the first time since man has known this country, the 'old river bed' will be a veritable river, big enough for steamboats." The writer went on to say that the canal will be completed for 30 miles to the river bed by May. "Trout will take the place of sand lizards," the writer exclaimed.

On Feb. 3, 1905, *The Bend Bulletin* reported that the ground is torn up for six miles from the flume for the COC. Work was continuing the flume. The crews and equipment were stationed along the first 10 miles of the COC route and it was being constructed. Crews were aided by having the specialized rock drilling equipment ordered by J.O. Johnson to speed the process of blasting rock and steam shovels to scoop up broken rock and load it in wagons. On February 10, 1905, the company moved men and horse teams from the PBC to work on the COC.²⁴⁴

On February 17, 1905, the headline exclaimed that the work on the PBC was finished to the Crooked River. "This will add about 125 men and 40 horse teams to the COC work, which is at mile 10." (This point is at the eastern end of the nominated historic district.) "The transferred camp will take up work on the COC at a point about 10 miles east of Bend, as soon as the retiring frosts will permit canal excavation. That will put a force of about 300 men and 200 teams, to say nothing of machine drills, road machines, and patent excavators, on the one big canal and it will carry water to the old river bed early in the spring."

On March 10, 1905, the crews included 400 men and 250 horse teams. Two more miles were being excavated and the rock work was going well with the energy of the crew and the specialized equipment. But there were more setbacks. A huge sink hole opened on the canal near the intake flume at the river and was challenging to

Price Index (CPI) for 2015 (239.7) and the CPI for 1913 (9.9; 1913 being the earliest available) the calculation is $(239.7/9.9) \times \$500,000 = \$12,106,060.61$ in today's dollars.

²⁴³ "Now Building Laterals," (*The Bend Bulletin*, April 14, 1905), 1. The article noted: "Now comes the system of laterals distributing the water for the use of the farmers."

²⁴⁴ "To Crooked River," (*The Bend Bulletin*, February 3, 1905), 1. Indicates COC just started at this time, with the breaking up of ground; "Canal Is Finished," (*The Bend Bulletin*, February 17, 1905), 1. This article indicates work completed to the Crooked River on February 10; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, February 4, 1931), n.p. Brogan states February 9 as the completion date.

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plug. The next week the newspaper extolled all the new settlers between Bend and Powell Butte, who were arriving due to the PBC's completion, the COC's construction, and the company's advertising campaign.

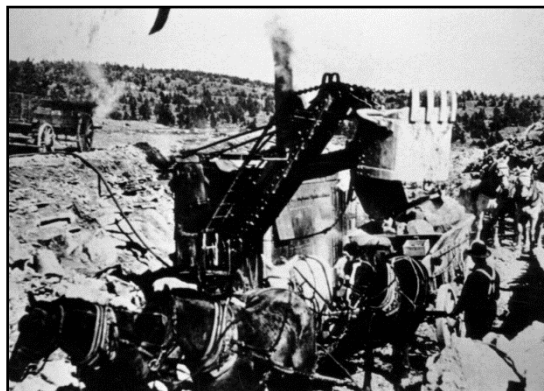
In early April, 500 feet of the newly enlarged wooden flume at the diversion point at the river collapsed. Lumber was in short supply. Because the water had to be shut off to the two canals again, the construction camps had to be temporarily moved into town, so the men and horses could have water to drink and use for domestic purposes. Within a month, the flume was repaired. Water flowed for the irrigation season through the PBC and out 10 miles on the COC, so the crews could resume work there. The crews were reduced when many workmen quit and went to the Columbia Southern ditch work that was offering higher wages.

The Bend Bulletin on July 14, 1905 said, "Several leaks have developed along the Central Oregon work, where rock was shattered by blasting, opening crevices to subterranean chambers. These are generally stopped by paddling and tamping." It was expected that the repaired and enlarged flume could carry 1,000 cubic feet per second of water instead of the 650 cubic feet per second that was estimated. In August 1905, the D. I. & P. Co. raised wages again to \$2.25. Due to the work force being reduced, crews were still 12 miles east of Bend.

On March 9, 1906, the D. I. & P. Co. announced that F. C. Rowley, who has been superintendent of the company's work in the field, since it commenced operations, had resigned. Chief Engineer, C. M. Redfield, took on the additional duties as general manager to succeed J. O. Johnson who was in ill health. J. C. Lewis would become superintendent of construction. F. S. Stanley of Portland was the company's secretary and treasurer.

On December 21, 1906, the company described the vicinity of the nominated historic district on the front page of *The Bend Bulletin*. It said, "A drive east of Bend a few miles on the Bear Creek Road will emphasize very clearly the fact that the Bend country is gradually developing and that the sagebrush and juniper must give way to fields of grain and fruitful orchards. Many new settlers are moving onto land purchased by them, houses, barns, and fences are being built, and the land is being cleared and plowed."

J. O. Johnson died in Columbus, Ohio the week of April 26, 1907. It was reported, "Mr. Johnson had unlimited faith in the future of the upper Deschutes valley. He himself had invested in and developed a large ranch of 1,280 acres 18 miles east of Bend, and during his last visit to this place he told a *Bulletin* representative that this valley would someday be a marvelous producer of farm products, fruit, etc., and that it would occupy the same position to Portland as the fertile Mohawk Valley does to New York City." The canal was completed as far as Alfalfa when he passed away.



Steam shovel loads rock into a horse-drawn wagon.²⁴⁵

In May 1907, the settlers were complaining that the main canal near Powell Butte was not under construction yet. The company was complaining about the cost to construct the project. Thousands of acres around Dodds

²⁴⁵ Undated, ca. 1904, photo courtesy of Bowman Museum in Prineville OR.

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Road, the Dry River, Alfalfa and Powell Butte were not salable. The State Land Board agreed to raise the selling price of the D.I. & P. Co. land from an average of \$10 per acre to an average of \$25 per acre, with a maximum price of \$40 per acre. Formerly, sales were from \$1.50 to \$25 per acre. The company also agreed to turn the company over to the settlers in 10 years.

The materials for the 60-inch diameter inverted stave pipe to cross the Dry River between the growing communities of Alfalfa and Powell Butte were ordered in June 1907. In October, the 85 tons of materials arrived by freighters and work to assemble the trestle and pipe commenced. In January 1908, assembling the stave pipe on trestles was completed and water ran through it for the first time, connecting the completed section of canal on each side. In 1907, the rocky portion of the canal in the nominated historic district was enlarged the first time to allow a greater flow to reach farms in Powell Butte.

In April of 1908, Roscoe Howard of Tacoma, Washington, took over management of the D.I. & P. Co. from F. S. Stanley of Portland. Howard was quoted in an April 10, 1908 article in *The Bend Bulletin*, "I consider the matter of first importance is to complete the canal and laterals now under construction in the Powell Butte neighborhood to supply the settlers in that vicinity with water. That work will be pushed with all due dispatch". By mid-June, the canal was delivering water for 28 miles, including to some settlers in Powell Butte. In December, the company was saying that, if the weather would hold up, the canal could deliver water to the settlers for the entire 45 miles in the next year.

In January 1909, the company was irrigating 84,000 acres with both canals. On February 3, 1909, a letter from a settler in Powell Butte was printed in the Bend Bulletin newspaper that slush ice filled the COC so full that the water ran over the frozen banks and flooded the old river bed, washed out some of the furrow laterals, and washed mud into some of the cisterns. By the 1909 irrigation season, most of the settlers had water and the 45 miles of the COC were constructed. Other improvements and laterals and ditches continued to be built through the next five years.

The D. I. & P. Co. was reorganized as the Central Oregon Irrigation Company in 1910.²⁴⁶ In November of that year *The Bend Bulletin* reported that "Oregon's greatest irrigation enterprise [is] actively and firmly on its feet again."²⁴⁷

The Canal is Completed

In 1912, the North Dam was completed by the company. From a new diversion point and headgate at the new dam, a new 1.4 mile long "U" shaped channel, called the North Canal, was constructed in flat terrain to connect the river to the existing PBC at approximately milepost 8 of the Pilot Butte system.²⁴⁸ The new dam, the new

²⁴⁶ McGuffie, J. G., Secretary, Central Oregon Irrigation, Letter to Fred F. Henshaw, Federal Power Commission Board of Engineers, April 23, 1921. McGuffie wrote that during the 1907-1910 period, the D. I. & P. Co. "proceeded actively in the reclamation of lands embraced in Segregation List No. 6, but the bond holders became restive and litigation arose which resulted in the foreclosure by the bond holders [into receivership] and a reorganization of the affairs of the company, and a transfer of all contract rights of the [D. I. & P. Co.] to the Central Oregon Irrigation Company, a corporation, which ... continued in the construction and management of the system from November, 1910"; "D. I. & P. Co. To Reorganize: Change in Irrigation Co. Effected This Week," (*The Redmond Spokesman*, November 9, 1910), 1. The Central Oregon Irrigation Company filed its articles of incorporation, October 16, 1910, with a capital stock of \$1.5 million. The directorate was Frederick F. Stanley, A.F. Biles, Jesse Stearns, and others representing New York and Columbus interests.

²⁴⁷ "Troubles Over," (*The Bend Bulletin*, November 2, 1910), 1. Other interests included I.N. Farnum of New York, representing J.G. White & Co.; and L.G. Addison, of Columbus, representing the Ohio bondholders. Roscoe Howard was manager and C.W. Redfield chief engineer. For the new firm, Stanley was president, Biles was vice-president, and Stearns was secretary-treasurer.

²⁴⁸ Federal Power Commission, *Report to the Federal Power Commission on Uses of the Deschutes River, Oregon*, (Washington, D.C.: Printing Office, 1922), 75. The water for the PBC system thus remained in the Deschutes River rather than being diverted where it had been since 1904-05, and passed down the river where it was then diverted through the North Canal and into the PBC, *above the nominated section*. The PBC system continued to irrigate the same historic lands north of the nominated section; Hadlow, Robert W., Cultural Resources Specialist, *Findings of Effect on Bend's Historic Irrigation Canals, Bend Parkway, The Dalles-California Highway, U.S. 97, Deschutes County*, (Salem: Oregon Department of Transportation, Environmental Section, June 1992), 4. The North Canal became generally known as the North/Pilot Butte Canal. The portion of the PBC which had come through the Townsite was terminated about 1.5 miles north of the Bend Townsite.

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diversion point and the new North Canal were built at the prompting of the city council who wanted more flow in the river within the city limits and to correct deficiencies of water volumes in the intake flume south of Bend and in both the Pilot Butte and Central Oregon canals.



COID employee fills an underground cavern in the Central Oregon Canal near Dodds Road, two miles east of the historic district.²⁴⁹

In 1914, after the North Canal Dam and the North Canal were completed and more water was diverted from the Deschutes River at separate diversion points for each canal, deficiencies in capacity on the main COC were again identified by the engineers inspecting the project for the Desert Land Board. The Central Oregon Irrigation Company, which took over from the D. I. & P. Co. in 1910, continued to use Chief Engineer C. M. Redfield. Redfield calculated that moving the intake for the Pilot Butte Canal north to the new dam and having the original intake and flume only serve the COC would solve the inadequate volume on the COC. Settlers at Powell Butte were complaining loudly to the County Court and to the state Desert Land Board that, even after the North Dam and the North Canal were diverting and conveying more water to the PBC, the COC was not delivering the contracted amount of water to some settlers and, therefore, crops were not growing adequately.



The 1912 North Dam on the Deschutes River, photographer looking east.²⁵⁰

Redfield measured seepage losses at nearly 40% on the total length of the COC, instead of the 30% anticipated by Wiest in 1904. Canal enlargement work was again undertaken in 1913 and 1914. The portion of the canal in the nominated historic district was enlarged a second time to allow a greater flow in laterals to reach farms at the end of the canal. In addition to enlarging some portions of the canal, Oregon State irrigation system inspector John Dubuis wrote in 1915 that there was a greater loss of water to seepage than expected.

²⁴⁹ Undated Deschutes County Historical Society photo.

²⁵⁰ Photo by Patricia Kliewer, March 2015.

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He reported that the numerous drops on the canal have not been properly constructed and the water can tumble down over the rock as best it can between the canal grade lines. Dubuis wrote that the canal does not have the planned 1.5' clearance and is anything but smooth and consistent. As described in Section 7, the engineers found that the value of "n" (roughness of the canal bed) in the COC in the nominated historic district at milepost 7 was 0.036 and at milepost 8 was 0.038, with a note, "Channel rough: rock bottom." Smoother sections to the east had values around 0.025.²⁵¹ All of these problems are evident in the historic district. In 1915, the COC irrigated 25,573 acres, not counting high lands, waste or rocky lands, and the rights-of-way for the canal itself. In 1914, the COC was diverting 440 cubic feet per second (cfs) at the river. Today it diverts 530 cubic feet per second. A cubic foot per second equals 448.83 gallons per minute, so the flow is now 237,880 gallons per minute.

DESIGN AND CONSTRUCTION TECHNIQUES USED ON THE CENTRAL OREGON CANAL

Like other engineers who preceded them in the high desert, Levi D. Wiest, Joseph G. Kelley, and Charles M. Redfield designed an open canal system with a consistent trapezoidal shape and gently angled side slopes to provide carrying capacity to adequately irrigate the land to be sold or homesteaded. They calculated the canal sizes necessary to convey enough water to distribute to the settlers, accounting for expected losses from seepage into the soil, evaporation, and "carry water" needs to irrigate the 84,707 acres in Segregation List # 6.²⁵² The canal was designed for 'safe capacity,' which is the maximum amount of water that the canal can carry without causing the velocity of flow to become so great as to cause serious erosion of the bottom and sides.²⁵³ Safe capacity also leaves sufficient clearance between the top of the water surface and the top of the banks to prevent ill effects of wave action, rise and fall of the water surface due to the regulation of the headgates and the wearing down of the banks by weathering and trampling of cattle. The design gave a 1.5 to 2-foot clearance between the top of the moving water and the top of the banks. As mentioned previously, another factor in their designs was the expected average roughness of the canal. The greater the roughness, the greater friction it causes, and the velocity reduces. The canals near the headgate were the largest because the canals carried the full amount of water diverted there. The designs showed a consistent shape with flat beds 4' deep by 40' wide for the PBC and 4' deep by 50' wide for the COC, to prevent extensive digging while providing capacity. Seepage losses were expected to be 30%, but they were measured at near 40% by John Dubuis in 1914. Evaporation losses were measured at less than 1%.²⁵⁴

Design and Size of the Central Oregon Canal and 'A' and 'B' Laterals

Except for the wooden flume at the intake, concrete or wooden flumes bridging low spots and caverns, concrete and wooden bridges over roads, and the wooden pipe at the Powell Butte Siphon, only native materials found in place were used in canal construction. In the nominated historic district, Charles M. Redfield oversaw survey crews and located the COC and headgates for two laterals, while ditches were located later as settlers arrived, but were mainly in place by 1912.

Laterals are assigned consecutive letter names, with the lateral closest to the river source being 'A'. The 'A' Lateral diverted enough water to irrigate 5,292 acres in Bend and to the north and east side of Bend to Butler Market Road. At the beginning of the nominated historic district, in 1914, at Ward Road, the canal volume was 365 cfs. In the nominated historic district, the headgate to Lateral 'B' is on the north side of the canal and it irrigates 1,319 acres. The 'B' Lateral slightly reduced the volume in the main canal to 356 cfs. The headgate for the 'C' Lateral is also on the north side of the canal in the nominated historic district and it irrigated 2,498 acres to the north. The flow at the end of the district at Gosney Road was 286 cfs. As water is delivered to its users

²⁵¹ Ibid., 19.

²⁵⁵ The Deschutes Irrigation and Power Company, Cross Sections of Pilot Butte Canals and Laterals, Levi Wiest, Oregon State Archives.

²⁵³ Dubuis, John, Report to Desert Land Board on Central Oregon Project, 1915, State Printing Department, 1915.

²⁵⁴ Oregon State Engineer, United States Department of the Interior, Bureau of Reclamation, "Deschutes Project", December 1914, UC Berkeley Library, 110.

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through laterals and ditches, it carries less water and becomes successively smaller. An average of 4' deep and about 50' wide canal at full capacity would carry the necessary amount of water in the district. But, to have a minimum of excavation while providing capacity, the canal shows great variability in width, depth, and shape (Figure 21).

Building Techniques in the Canal in the Historic District

After the canal route was surveyed and contours of the land were drawn, the selected route was marked. Clear and grub crews cleared the route of juniper, pine trees, and shrubs like sagebrush and bitterbrush with hand saws. Horse teams pulled out stumps by dragging stout chains draped around the shrubs' bases, pulling them out, roots and all. Next, the volcanic topsoil and loose rocks were moved with hand shovels and horse-pulled Fresno scrapers to create the bed and form the embankments.²⁵⁵ Where the rocks and volcanic rock flows were only inches below the surface rock was blasted into movable sizes. The rock was drilled with 2.25" diameter drills. Blasting powder was poured into the holes and exploded to break rock into smaller pieces that could be removed. The solid rock layer was up to 100' deep, so when the top layer was removed, solid rock below that layer remained in the bed.

Soil and rocks that were dug and blasted out of the canal bed, called 'spoils,' were used to build embankments or placed irregularly as riprap on the insides of the banks and in the canal bed to fill in fissures (Photos 1 to 20). To build embankments, as each half foot of rock and soil was piled in successive layers on the downhill edge of the canal bed, the materials were flattened in layers, called 'lifts.' This layering and flattening process continued with progressively narrowing layers until the desired embankments were tall and dense enough to hold the water in the canal. Jagged 12" to 36" rock riprap haphazardly lined the steeper and taller embankments and the deeply cut sides so that the desired slopes will hold up to the erosive action of the water. The resulting embankments served two purposes: to hold the water in the canal and to dispose of the soil and rock that had to be removed from the canal bed.

Because the level compaction of lifts made a secure, flat-topped structure, a horseback rider known as the ditch rider and employed by the irrigation company, inspected the canal and checked on appropriate water withdrawals while riding on the embankments. In the nominated historic district, a somewhat consistent 12'-wide ditch rider road is along the north side of the canal, next to cut sides and on top of embankments. Embankments are not along the entire canal in the historic district, nor are they on both sides of the canal. In two locations, including just east of Ward Road and just east of the Bear Creek Ranch Bridge, the route selected for the canal was not on a diagonal slope. In those places, there is no embankment on either side and the canal was cut into the existing terrain and the spoils removed to use in berm building elsewhere. Being on the side of a hill, most of the canal in the historic district follows a diagonal northerly slope, where the canal was cut into the land on the high side and an embankment was created on the low side to even out the sides. However, between Teal Road and Gosney Road, the terrain drops off suddenly, and unusually high berms (12' tall and 20' wide) are on both sides of the canal. There is evidence that a 350-foot-long wooden flume formerly spanned this portion of the canal. Some parts of the canal in the historic district have rip rap and some do not. Thousands of feet of the sloped canal walls east of Bear Creek Ranch Bridge are covered with silt and the rip rap is not apparent. In three places in the historic district, the crews carefully stacked rectangular rock on one side, making a nearly vertical rock wall (Photos 9 and 19.)

Because of the geologic conditions presented and the technologies employed, unique characteristics were carved into the nominated Historic District. The seven people who surveyed the canal on April 3, 2017 for this nomination located nearly fifty 2.25" drill holes in rocks left in the canal bed, used as riprap and discarded near the canal. Sixteen were photographed. Evidence of steam-powered drills, of blasting, and of men with horse-drawn Fresno scrapers and steam shovels are strikingly present in the canal's exceedingly rugged, irregular bed. Tons of unnaturally-sharply-angled breakage of ancient horizontally laid lava is present. Tons of basalt boulders strewed in the bed remain as remnants of the work. A large island sat midstream just above the Bear

²⁵⁵ Interview with Kenneth Lowe, son of homesteaders, 20220 Sturgeon Road, Bend, February 2014.

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Creek Ranch Bridge as an artifact of the labor of hundreds of men pushed to keep an ambitious schedule until they could do no more.

While some of the basalt rock flows made the bed impervious and nearly watertight, others had cracks that led to caves and underground channels that caused water losses. These holes were filled with rock and soil and concrete was used as needed. The canal has silted in and small stones and rocks have filled holes making it more impervious to seepage as it has aged.²⁵⁶ The location of the COC takes full advantage of natural water courses and draws and was described by some of the settlers as 'a chain of ponds.'²⁵⁷ The rockier, less impervious portions of the canal still look like a chain of ponds today where they hold pools of water with crayfish and trout long after the irrigation season is finished.



The COCHD displays dozens of 2.25" holes drilled for explosives.²⁵⁸

Attempting to dig into rock to carefully follow the engineer's plans and build a canal with a smooth bed and equal trapezoidal sides was abandoned and instead crews settled on a practical technique that exactly followed the carefully marked route to keep the necessary elevation, but resulted in an irregular canal that differed greatly from the plans, but usually functioned to carry the necessary volume of water. Where the laborers were slowed by solid rock, they made the canal shallower and wider with more inconsistent side slopes than the plans called for. But a problem arose when the unavoidable rough bottom differed so much from the original plans that the friction inadvertently reduced the capacity of the canal. This and other issues resulted this stretch being widened twice, in 1907 and 1914.

THE CENTRAL OREGON PROJECT AND THE FOUNDING OF THE CITY OF BEND

Founding the new towns of Bend and Redmond, developing infrastructure, utilities like electric power service and basic businesses such as banks, and aggressively attracting ministers, settlers, businesspeople, tradesmen and farmers by selling thousands of acres of land in city lots and in 40 to 160-acre parcels a short time was the key to the financial success of the irrigation project. The development companies were involved in every aspect of the new towns, Bend and Redmond, making them prosperous and desirable as soon as possible.

Early Bend, 1900-1904

Brogan's *East of the Cascades* describes the area along the Deschutes River as the Alexander M. Drakes arrived in early June 1900: "The Cascade peaks to the west were white and beautiful above green skirts of pine, fir, and hemlock. There were no signs of life along the sweeping bend of the river ... Upstream a short distance, the W.H. Staats ranch was hidden in timber around a curve in the river. Still farther upstream ... was the ... Farewell Bend Ranch. To the north, within sight of the stream, were other small ranch houses, little

²⁵⁶ *ibid*

²⁵⁷ Dubuis Report to Desert Land Board on the Central Oregon Project, 28.

²⁵⁸ Patricia Kliewer photograph April 3, 2017, Photographer looking north.

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more than cabins, most of them with histories dating to the early eighties (1880s) and most of them abandoned.²⁵⁹

Before the PBC and the COC were built, the area was a small, remote frontier site about 25 miles southwest of Prineville, the Crook County seat. It was in the Deschutes River canyon at one of the few places where in pioneer days it was easy to get a wagon down to the water's edge and ford the stream. Moreover, this site along the Deschutes River was the *most* accessible of these places, and the point where a canyon was not in evidence. It was at a pronounced double bend in the river, which afforded a good place to camp, beginning in the days of the emigrants, but how early is not known. "The place began to be known as Farewell Bend, and the name was appropriate irrespective of the destination of the traveler, north, south, east or west," according to *Oregon Geographic Names*.²⁶⁰

In November 1904, the PBD Co. was clearing the pine trees out of Minnesota and Bond streets in the newly-platted townsite. *The Bend Bulletin* described the work. "A powerful capstan, chains, a team of horses and an axe are the instruments of this work, and they make a clean job of it, pulling over great pines four feet in diameter without difficulty, after the surface roots are cut."²⁶¹ Vandever indicated that he had seen the area change "from a few little log cabins to the present town of Bend ... I've seen the whole country change from what you might say was a wilderness, but a very beautiful wilderness"²⁶²

Settlement of Bend, 1904-05

A.L. Goodwillie²⁶³ was the Secretary of the PBD Co., signing the Plat of Bend with Drake on May 31, 1904,²⁶⁴ two-and-a-half months after Drake's sale of the firm's irrigation contract and rights to the D. I. & P. Co., filed in Crook County on March 14, 1904. He became a partner with Drake in the PBD Co. sometime just after the two-family get-together in Bend and Portland. In addition to eastern capital, Goodwillie brought youthful energy, leadership, in addition to organizational and public relations skills.

The D. I. & P. Co. finished the first four miles of the PBC and delivered water to the land close to the townsite in June 1904, so that by December, as the town incorporated, real estate prices were increasing.²⁶⁵ At this time, the PBD Co.'s business associated with settlement of the townsite went well. Streets, blocks, and lots were delineated; townsite land was cleared; lots were sold, and the town was developed in various ways.²⁶⁶ Goodwillie and Drake rebuilt the flour mill downtown following the January 1904 fire and it was back into 'full operation' in May, with forty employees.²⁶⁷ The PBD Co. offered an impressive selection of home-building materials.²⁶⁸ Drake had incorporated the Bend Mercantile Company in 1903 to also provide to the settlers

²⁵⁹ Brogan, Phil F., *East of the Cascades*, (Binford and Mort, Portland, OR., 1964), 181.

²⁶⁰ McArthur, Lewis A., "Oregon Geographic Names," (*Oregon Historical Quarterly*, vol. 27, 1926), 138-39; McArthur, Lewis A., "Oregon Geographic Names: II; Additions Since 1944," (*Oregon Historical Quarterly*, vol. 47, 1946), 64-65. The various 'Bend' post offices are discussed. The Bend post office was established January 18, 1886, with John Sisemore postmaster. On March 7, 1904, a new Bend post office was established near the site of the Pilot Butte Inn (built in 1917).

²⁶¹ "Local Bits," (*The Bend Bulletin*, November 11, 1904), 5.

²⁶² "Ranch on the River," (*The Central Oregon Answer Book*, Bend: The Bend Bulletin, March 27, 1994), 17. Taken from a transcription of an interview with W.H. ('Billy') Vandever conducted in 1953 by KBND radio's Kessler Cannon as part of Bend's 50th anniversary celebration.

²⁶³ National Register of Historic Places, Goodwillie-Allen-Rademacher House, Bend, Deschutes, Oregon, NRIS 07000493. Arthur Lawson Goodwillie is a Significant Person (Criterion B). Areas of Significance recognized by the National Register in which he contributed include Community Planning and Development, Commerce, Communications, Education, Industry, Politics/Government, and Social History.

²⁶⁴ Pilot Butte Development Company, Plat of Bend, Filed June 7, 1904. Document signed by Drake and Goodwillie on May 31, 1904.

²⁶⁵ "Real Estate Is Up: Paid \$450 and Sold for \$900," (*The Bend Bulletin*, December 8, 1904), 1.

²⁶⁶ "Week's Sales of Lots," (*The Bend Bulletin*, July 8, 1904), 5. This week the PBD Co. sold seven lots in Bend.

²⁶⁷ "Lumber to Build," (*The Bend Bulletin*, May 13, 1905), 1; "Notes of the Builders," (*The Bend Bulletin*, April 29, 1904), 2; A "sawmill outfit arriving from the railroad" in April 1904 was machinery to rebuild the mill; "Local Bits," (*The Bend Bulletin*, March 17, 1905), 5.

²⁶⁸ Advertisement, (*The Bend Bulletin*, May 31, 1907), 1. The PBD Co.'s ad lists the following: "Inch Common, Dimension, Shiplap, Rustic, T. & G. Flooring, Beaded Ceiling, Window Jambs, Window Casing, Head Blocks, O.G. Baseboard, Stair Treads, Water Table, O.G. Battins, Moldings, P.B.D. Patent Roofing, Fence Pickets, Shingles, Etc., Etc."

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building products and a wide variety of other merchandise needed, and constructed a building in which to retail them in 1904.²⁶⁹ In 1909, he was treasurer of the newly formed Bend Board of Trade.²⁷⁰ He built a dam and power plant just north of the townsite, bringing electricity to the city on November 1, 1910.²⁷¹

As the PBC was being completed, the company could focus on advertising the land for sale and attracting settlers to the area. The townsite was due to be incorporated, ordinances were written, and a network of dirt streets was in place. Goodwillie was named as the chief petitioner for the incorporation of the City of Bend.²⁷² On December 19, 1904, an election was held, overwhelmingly deciding in favor of the matter of incorporation, and electing Goodwillie as the city's first mayor and the Chief Engineer Charles M. Redfield as a city councilor.²⁷³ "BEND IS NOW A CITY" announced *The Bend Bulletin* on January 6, 1905.²⁷⁴ More than \$100,000 in building construction had been invested in the city in the previous year. This included \$10,025 by the PBD Co. and \$11,000 by the D. I. & P. Co.²⁷⁵

The first city council meetings were held in the office of the PBD Co., beginning on January 10, 1905.²⁷⁶ Initial matters concerned making the city respectable and attractive to settlers, potential new business owners, and professionals. Doctor Urling C. Coe, M.D., observed in his memoirs, *Frontier Doctor*, "The irrigation company had a number of (canal) construction camps within a short distance of town where hundreds of men were employed at high wages. ... [Those camps were for the COC construction close to Bend.] There were eight saloons with open gambling."²⁷⁷ *The Bend Bulletin* summarized the first ordinance. "The most important ordinance was that fixing the license of retail liquor saloons at \$600 per year, none to be granted for a less period than a year. A bond of \$1,000 was required of the licensee."²⁷⁸ Only five saloons were in operation by March 1905. A contract was also let for the building of a jail.²⁷⁹

To provide for the infrastructural needs of settlers including banking, utilities, and communication, A.L. Goodwillie founded and invested in several other firms. W.E. Guerin, Jr., was a partner or officer with him in these. With Guerin, he incorporated the Central Oregon Banking & Trust Company.²⁸⁰ By early February 1905,

²⁶⁹ "Local Events," (*The Bend Bulletin*, June 5, 1903), 3. Drake's partners were Alexander Thomson, A.H. Grant and T.M. Baldwin; "General Building Note," (*The Bend Bulletin*, May 20, 1904), 1. The company sold lumber, shingles, molding and sash from its two-story building; Advertisement, (*The Bend Bulletin*, October 14, 1904), 1. John Deere agricultural implements, Phoenix Paints, dry goods, groceries, and other products were soon added.

²⁷⁰ "Bend Men Form Board of Trade," (*The Bend Bulletin*, September 8, 1909), 1; *A History of Deschutes Country in Oregon*, 212-13.

²⁷¹ "Power Plant for Bend," (*The Bend Bulletin*, January 6, 1909), 1; "Try Out Power Plant: Machinery Works Well—Lights May Be Ready in Few Days," (*The Bend Bulletin*, November 2, 1910), 1. John Steidl and others were partners.

²⁷² "The City of Bend: Petition for Incorporation is Signed," (*The Bend Bulletin*, November 4, 1904), 1. Goodwillie presented the document to the county court on November 26, 1904.

²⁷³ "Goodwillie Winner: To Be Mayor of New City of Bend," (*The Bend Bulletin*, December 23, 1904), 1.

²⁷⁴ "Bend Is Now A City: Incorporation Approved by County Court," (*The Bend Bulletin*, January 6, 1905), 1. The Crook County Court canvassed the Bend municipal electorate, finding the election legal and officially declared the result; "Elect New Officers," (*The Bend Bulletin*, December 8, 1905), 1. Goodwillie was re-elected to a two-year term on December 5, 1905; Crook County, Oregon, *An Order Granting the Incorporation of a Municipal Corporation of Bend, Oregon*, (Crook County Court, Prineville, Oregon, January 11, 1905); Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western Historical Publishing Company, 1905), 728-729.

²⁷⁵ "More Than \$100,000," (*The Bend Bulletin*, January 6, 1905), 1. PBD Co. building investments included: sawmill, \$4,500; office, \$1,450; barn, \$800; PBD Co. residence, \$375, Drake addition to residence, \$1,100; and Goodwillie residence, \$1,800. D. I. & P. Co.'s building investments included: office, \$2,200; club house, \$1,700; stables and shops, \$1,200; granary, \$700; warehouse, \$600; powder house, cook house, etc. at experimental farm, \$600, barn, \$500, and Guerin residence, \$3,500. "Minutes of the Common Council of the City of Bend," December 1905. In December 1905, the council learned the total amount of taxable property in the City of Bend to be \$50,005 and passed a (retroactive) tax levy for 1905.

²⁷⁶ "Minutes of the Common Council of the City of Bend," January 5, 1905. Attorney W.E. Guerin, Jr. and his law partner, George C. Steinemann, provided legal services to the City. The firm charged \$150 to incorporate the City of Bend.

²⁷⁷ Coe, Urling C., *Frontier Doctor: Observations on Central Oregon and the Changing West*, (Corvallis: Oregon State University Press, 1996), 4. Coe arrived in Bend on January 10, 1905.

²⁷⁸ "Saloon License \$600," (*The Bend Bulletin*, December 23, 1904), 1; "Minutes of the Common Council of the City of Bend," December 1905. The city's chief revenue would come from the liquor license in its first year.

²⁷⁹ "For A New City Jail," (*The Bend Bulletin*, January 20, 1905). Contract awarded to the Brosterhouses.

²⁸⁰ "New Bank for Bend," (*The Bend Bulletin*, July 8, 1904), 1. Firm incorporated July 8, 1904. Goodwillie served as vice-president, Guerin as president, and J.M. Lawrence as secretary. The authorized capital was \$25,000; Crook County, Oregon, *Articles of*

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two franchise ordinances were passed by the city council: one for the water, light and power company and a second for the telephone company.²⁸¹ With Guerin and another partner, Goodwillie incorporated the Bend Light, Water and Power Company. The firm purchased the PBC Co.'s rights to construct and maintain electric lines, gas, water, and other public utilities of the city. The city water system was in operation by July 1905.²⁸² To connect settlers with the greater region, Goodwillie and partners incorporated the Deschutes Telephone Company, the city's first telephone company that began by running a line to Prineville. On August 17, 1904, the first voice communication was carried from just outside of Prineville to Bend over the thirty-mile long line that was also used for telegraph messages.²⁸³

An Illustrated History of Central Oregon captured the period succinctly, stating, "In 1905, the City of Bend marked a new era in the development of Central Oregon, and is a fine example of what can be accomplished when energy and capital unite in the development of vast resources."²⁸⁴

Governor Impressed with Settlement, June 1906

The Deschutes' Settlers Association welcomed in June 1906 Oregon Governor Chamberlain, who as head of the State Land Board had visited Bend in 1904 and had returned in that role. With him were the entire land board and some other state officials, including future governor Oswald West, then State Land Agent. Chamberlain was "well pleased with the work of the D. I. & P. Co." He said its canals and entire reclamation works showed the marks of permanency," said the newspaper. He was "impressed ... to the greatest degree ... [by] the remarkable development of this region during the past two years. At that time, he had ... found a few scattering cottages along the river and two or three buildings at the townsite. Now he was entertained in a prosperous little city with well laid streets, beautiful lawns, a fine gravity water pressure system and [a] new public-school building suitable to a city many times the size and age of Bend. Where before he found barren desert wastes now, he could count prosperous ranches by the score."²⁸⁵

Bend Area Population Increases with Pilot Butte and Central Oregon Canals, 1900-1920

Bend's population showed growth as the canals were constructed and, in the years, after they were built. Approximately 312 people lived in what became Deschutes County in 1900, 21 in the Bend Precinct. Canal construction brought the town's population to 400 or 500 people by 1905. Thereafter, both the city and the adjacent areas grew as settlement occurred and farming developed. The U.S. Department of Interior reported on Bend and the adjacent areas in 1913: "The result of this [irrigation] development is reflected in a gradually increasing population, that of the entire [area] being estimated at 4,000, which is distributed among four towns as follows: Terrebonne, 75; Redmond, 800; Deschutes, 50; Bend, 1,500."²⁸⁶

Incorporation of the Central Oregon Banking & Trust Company, (Crook County Clerk, Prineville, Oregon, July 8, 1904).

²⁸¹ "Franchise Ordinances Pass," (*The Bend Bulletin*, February 3, 1905), 1.

²⁸² Crook County, Oregon, *Articles of Incorporation of The Bend Water Light and Power Company*, (Crook County Clerk, Prineville, Oregon, November 11, 1904); The other partner was George C. Steinemann, an attorney; "Water Franchise," (*The Bend Bulletin*, February 10, 1905), 1; "Water, Light and Power Company," (*The Bend Bulletin*, November 11, 1904), 4; Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 729; "Water Pipes Arriving," (*The Bend Bulletin*, April 14, 1905), 1. A crew of 25 workers installed the water system from the river up to Wall Street and along Wall Street to nearly Oregon Avenue.

²⁸³ "Hello, Prineville," (*The Bend Bulletin*, August 19, 1904), 1. Guerin was president. Goodwillie was vice-president, secretary and treasurer. Gerald Grosbeck was manager; Crook County, Oregon, *Articles of Incorporation of the Deschutes Telephone Company*, (Crook County Clerk, Prineville, Oregon, July 18, 1904). Incorporating with Goodwillie were P. L. Tomkins and George C. Steinemann; "Companies Merged," (*The Bend Bulletin*, May 10, 1907), 1. In May 1907, the telephone company merged with the State Central Telephone Company at Prineville to become The Pioneer Telegraph and Telephone Company.

²⁸⁴ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 717.

²⁸⁵ "Gala Day at Bend: State Land Board Present at Farmer's Institute," (*The Bend Bulletin*, June 22, 1906), 1. The newspaper summarized Chamberlain's remarks. Chamberlain was governor 1903-09, then an Oregon Senator 1909-21. Oswald West served as governor 1911-1915. Approximately 1,500 trout were barbecued for 500-600 attendees. Speakers included A.M. Drake; Jesse Stearns, a prominent stockholder in the D I. & P. Co; H.F. Jones, president of the D. I. & P. Settler's Association at Redmond; Mayor Goodwillie; John Lewis, state engineer; and Dr. U.C. Coe speaking about using pure water and avoiding pollution of the Deschutes.

²⁸⁶ Oregon Cooperative Work, U.S. Department of the Interior, Reclamation Service, *Deschutes River Projects, Bulletin No. 1*, (Washington: Government Printing Office, 1914), 4. Deschutes refers to a town just outside of Bend, used by the irrigation company, and not the 1902 plat of Deschutes adjacent to the City of Bend.

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Bend Tax Assessment Grows, 1905-1913

The increased property tax assessments for the City of Bend resulted from irrigation development, settlement, and farming in the region. From 1905 to the 1910-1911 period, the assessed value of the City of Bend quadrupled as the Central Oregon Project provided irrigation water for settlers who earned income from farm and ranch products and, subsequently, sought products, services, and supplies from city manufacturers, service businesses, and merchants.²⁸⁷ In 1905, Bend property tax assessments totaled \$50,005. In 1913, they had leaped to \$358,820. If the approximately \$200,000 assessed against the D. I. & P. Co and exempted by the supreme court was included in the 1910 figure, it would be nearly an eight-fold (800 percent) increase in assessed value of property in the City of Bend from 1905.²⁸⁸

Bend School System Swells Following Pilot Butte Canal and Central Oregon Canal, 1904-1913

Water was flowing in the PBC in the 1905 irrigation system. Water also flowed in the COC as it was constructed, beginning in the fall of 1904, to provide water to the hundreds of men and horses working in the desert on construction crews. The COC was completed in 1914.

The school system quickly grew during the construction of the canals and the subsequent settlement of the area. A.L. Goodwillie, L.D. Wiest and James M. Lawrence, of the federal land office, were the Bend School District's Board of Directors, beginning in August 1904. There were 47 students at the beginning of the 1904-05 school year; in 1905, there were 102. By November 1908 there were over 200 students.²⁸⁹ Student enrollment increased from 344 in 1910, to 377 in 1911, to 487 by December 1912.²⁹⁰ Opening day for school in September 1919, saw 1,015 students register, an increase of 200 over opening day of 1918, partially attributed to the opening of the two great sawmills, the Brooks-Scanlon and Shevlin-Hixon Lumber Mills. ²⁹¹ Registered students totaled 1,408 on opening day in 1920

Railroad Officials Visit Bend

In April, 1905, the D. I. & P. Co. had finished the PBC and was working on the COC "when it came to the conclusion that rail transportation was essential to the settlement of the lands."²⁹² Drake used his family connections with owners and developers of railroads and returned to Bend in late May with news the entire region wanted to hear: "From what I am able to learn, east and west, Bend's chances for a railroad are very good."²⁹³ Mayor Goodwillie appointed a committee of aldermen and citizens, including Drake, to receive a party of railroad officials soon to visit Bend.²⁹⁴ The officials arrived shortly thereafter to look over the locality and examine its resources and possibilities of development. The group visited the canals and the company's agricultural experimental farm just out of Bend. They had travelled from Shaniko in the 'big automobile of the

²⁸⁷ "County Assessment Is \$10,316,157: Some City Figures," (*The Bend Bulletin*, October 22, 1913), 1. Though some increase may be attributed to an expansion of the city limits, it remains an increase in the valuation of the property within the city.

²⁸⁸ The assessed value of property in the City of Bend in 1910 of \$191,524 + \$200,000 (D. I. & P. Co. exemption) = \$391,524. Just somewhat over that figure (\$400,040) would be eight times (800%) more than the City's 1905 assessment of \$50,005.

²⁸⁹ "Ready for School," (*The Bend Bulletin*, August 26, 1904), 1; "Local Bits," (*The Bend Bulletin*, December 30, 1908), 5; "School Election," (*The DesChutes Echo*, June 25, 1904), 1; "New Books for School Library," (*The Bend Bulletin*, October 7, 1904), 4.

²⁹⁰ "487 Pupils in Bend District." (*The Bend Bulletin*, December 25, 1912), 1. The 487 students in 1912 were divided between 251 boys and 236 girls.

²⁹¹ "Attendance at Schools Show City's Growth," (*The Bend Bulletin*, September 18, 1919), 1. The number of registered students at the end of the first month, in 1918, was 885. By school, registration was as follows: junior high, 160; senior high, 150; Central 115; Kenwood 215; Reid 325; timber camps 50.

²⁹² "Drawing to a Head," (*The Bend Bulletin*, April 14, 1905), 1. D. I. & P. Co. officials, President Turney, General Manger Johnston, and stockholder Fred S. Stanley, visited the area to analyze its condition.

²⁹³ "Talk of a Railroad: Plans to Build to Bend Taking Shape," (*The Bend Bulletin*, June 2, 1905), 1. Drake noted: "This matter has been all but clinched two or three times lately. But the railroad world has been struggling with important adjustments and plans have been changed on short notice. Railroad affairs cannot be said to be wholly settled yet, but they are approaching that condition. I believe before a full settlement comes, arrangements will be made for putting Bend in railway connection with the commercial world."

²⁹⁴ "Minutes of the Common Council of the City of Bend," June 20, 1905. Appointed were A.M. Drake, John Steidl, C.A. Chapman, E.F. Batten, Hugh O'Kane, R.B. Mutzig, W.E. Guerin, Jr., F.C. Rowlee and J.M. Lawrence; "Full Fire Protection," (*The Bend Bulletin*, June 23, 1905), 1. Committee of same individuals named by Goodwillie.

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Central Oregon Transportation Company,²⁹⁵ a subsidiary of the D. I. & P. Co., which served as a stage line for the firm in its irrigation development and settlement businesses.²⁹⁶

The railroad delegation expressed surprise over the advancement the area had made in the last few years. Industrial agent Judson was enthusiastic: "The country has grown faster than there was reason to expect and there is no room for doubt that it will make a great deal of business for a railroad." Professor French, of the University of Idaho, said, "I know of no better locality for the development of the sugar beet industry." General Manager O'Brien remarked, "I am greatly surprised and gratified at what I have seen. The extent and richness of this region is beyond anything I have been led to believe. Of course, you will have a railroad here, you must have it."²⁹⁷ A week later O'Brien said, "When I see people putting hundreds of thousands of dollars into reclamation work in the Bend section, I think they must know what they are doing and that practical results will follow."²⁹⁸

INVESTORS PROMOTE AND CAPITALIZE ON CENTRAL OREGON PROJECT

William G. Robbins, PhD, Emeritus Distinguished Professor of History at Oregon State University, in his environmental history of Oregon, *Landscapes of Promise*, described the promoters and investors of the period: "Those who promoted development in the Oregon country were epic poets of sorts, harbingers of change, visionaries whose imaginations knew few restraints other than those dictated by the most obvious limits of technology and natural obstacles."²⁹⁹ The Deschutes Country was quite successful in its marketing efforts. Author and former Tumalo Irrigation District director Martin T. Winch in "Tumalo — Thirsty Land," his seminal, six-part series on the Tumalo Irrigation District, published in the *Oregon Historical Quarterly*, said: "[In 1902] the Deschutes Valley was reported to be 'the best advertised district today in the United States.'"³⁰⁰

Successful Promotional Efforts of A.M. Drake

Promotional efforts for settlement were ongoing as Drake used his extensive business and family connections and friendships to politicians, government officials, regional and national newspapers, banking and financiers, and railroad tycoons "to lay plans for immigration". His early promotional efforts were primarily through local

²⁹⁵ "Looking for Traffic: Railroad Men Examining the Bend Country," (*The Bend Bulletin*, June 23, 1905), 1. Officials included W.W. Cotton, former U.S. judge for the judicial district of Oregon, then counsel for the Oregon Railroad and Navigation Company (O. R. & N.); J.P. O'Brien, general manager for the Harriman railway lines in Oregon, Washington, and Northern Idaho; R.R. Miller, freight agent of the same; R.C. Judson, industrial agent of the same; G.W. Boschke, chief engineer of the same; E.E. Lytle, president of the Columbia Southern railway (an O. R. & N. branch); H.P. French, president of the University of Idaho; and Fred S. Stanley, secretary of the D. I. & P. Co.

²⁹⁶ "Direct Stageline," (*The Bend Bulletin*, July 8, 1904), 1. By July, the firm had two big automobiles running stage between Bend and Shaniko for both passengers and express, with mail to be added by September. The route was to make stops between Bend and Shaniko as well as travel south to Paisley, Silver Lake, and Summer Lake; "Biggest Automobile in the United States Was Built in Portland," (*The Sunday Oregonian*, March 12, 1905), pt. III, 22. A.E. Hammond, former chief engineer of the Columbia Southern Railway and former State Engineer, was the president of the transportation company; "Direct to the Railroad: Starting of the Automobile Service," (*The Bend Bulletin*, April 14, 1905), 1.

²⁹⁷ "Train to Come Soon: That's What Railroad Delegation Says," (*The Bend Bulletin*, June 30, 1905), 1. Regarding sugar beets, the professor added, "The soil is right, and the climate is favorable. A family can make a good living on a farm raising sugar beets."

²⁹⁸ "Two Steps to Bend," (*The Bend Bulletin*, July 7, 1905), 1. A week later reports indicated that the Oregon Railroad and Navigation Company was "in the field with the assurance of an extension of the Columbia Southern from Shaniko." O'Brien stated his plans. "I believe that conditions at the present time warrant building to the Agency Plains [near Madras] ... And by the time the railroad is completed to Madras, I expect conditions to be such that I can recommend an immediate advancement from there to Bend."

²⁹⁹ Robbins, William G., *Landscapes of Promise: The Oregon Story 1800-1940*, (Seattle: University of Washington Press, 1997), 244. In addition, Robbins' books include: *Landscapes of Conflict: The Oregon Story, 1940-2000*; *Hard Times in Paradise: Coos Bay, Oregon, 1850-1896*; *Colony and Empire: The Capitalist Transformation of the American West*; and *The Great Northwest: The Search for Regional Identity*.

³⁰⁰ Winch, Martin T., "Tumalo — Thirsty Land," (*Oregon Historical Quarterly*, vol. 85, no. 4., Winter, 1984), 351. Winch cites the following sources: "The DesChutes Echo (Bend), Dec. 6, 1902, p.1, and Nov. 29, 1902, p. 1. Due and French, *Rails to the Mid-Columbia Wheatlands* (note 8), 44, 52. [title not provided], *Bend Bulletin*, April 3, 1903, p. 2. E.D. Culp, *Stations West*, (Caldwell, Idaho, 1972), 100."

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and state newspapers and in working with others, such as with A.L. Goodwillie in incorporating the City of Bend, and subsequently with the Bend Board of Trade. The Board put the Central Oregon Project in the headlines and involved community business members in promotion and development. His work was essentially behind the scenes, seemingly his forte. Sadie Niswonger of Powell Butte and later Bend, who knew Drake well, called him “an organizer” in a 1953 interview.³⁰¹

Shortly after forming the Bend Board of Trade in 1909, Drake secured space in two publications with large circulations, the Portland *Chamber of Commerce Bulletin* and the *Pacific Homestead*, for an article describing the advantages of the Bend country for the home seeker, farmer, manufacturer and investor, referring to water power, excellent farm lands, raw materials, business opportunities, and good schools. A small portion read, “Today all eyes are directed toward Central Oregon. The railroads are about to give transportation to the greatest and richest undeveloped area in the West. Now indeed watch Central Oregon grow, for the development of this country in the next three years will surpass anything hitherto seen even in the wonderful Northwest.” The article promptly received responses, indicating the growing interest in the prosperity of the Deschutes country following the completion of the PBC in 1905 and the COC in 1908. The Board received forty-five letters in the first week following the article, with fifteen referring specifically to the article in the *Pacific Homestead*.³⁰²

Drake’s ability to quickly sell his irrigation company to the D. I. & P. Co. indicated experienced investors understood the canal’s long-term financial opportunity. In addition, he played a crucial part in getting the railroad officials to visit the Deschutes country and made a calculated assessment of its economic potential. At the time of the officials’ visit with Mayor Goodwillie’s committee in June 1905, which included Drake, Frederick S. Stanley was present and Secretary of the D. I. & P. Co. He eventually invested several million dollars in the irrigation company. Moreover, he leveraged other investments in lumber, banking, and railroads, and his political connections as former chairman of the committee on railroads and transportation in the Oregon House of Representatives, to promote and grow his investment in the region.³⁰³ He remained with the Central Oregon Irrigation Company until 1921. Goodwillie, Drake’s PBD Co. partner, disposed of “his holdings in Bend on a rising market” in 1907, including his stock in the PBD Co. to Drake, resigned as mayor and returned to Chicago with his wife who was expecting their first child.³⁰⁴ He continued to own property and visited Bend many times, saying his years in Bend were the happiest in his life.

D. I. & P. Co. Promotions

The D. I. & P. Co. was a polished public relations organization for its period of history and its area of the nation, with the marketing and publishing experience of eastern businessmen. Moreover, the Central Oregon Project was a good irrigation system, embraced by suitable land for farming and ranching, and the ownership knew it. In April 1904, the company had issued a well written and illustrated booklet describing the Deschutes Country and its irrigation work. It described in detail the character of the soil, source of water supply and the prices that

³⁰¹ *Deschutes Country Yesteryear*, “Interview: Sadie Niswonger,” (no. 16, summer 1995), 489. Transcription of interview of Mrs. C.P (Sadie) Niswonger by Kessler Cannon, KBND, 1953. The Niswongers came to Powell Butte in the fall of 1907 and moved to Bend in the fall of 1909. Drake asked the Niswongers to release four lots on the railroad right-of-way, presenting them with a lot at 44 Irving and had the band hall moved to that lot for them to live in until they built a house.

³⁰² “Board of Trade Work Valuable,” (*The Bend Bulletin*, October 27, 1909), 1.

³⁰³ Duniway, David C., State Archivist, Oregon State Library, *Members of the Legislature State of Oregon 1860-1949*, (Oregon State Archives, Bulletin No 2, publication no. 14, 1949), 32. Frederick S. Stanley had served in the Oregon House of Representatives from Union County in 1897, 1898, and 1899. In 1899, he was the chairman of the committee on railroads and transportation; Gaston, Joseph, *Portland, Oregon: Its History and Its Builders*, (Chicago—Portland: S.J. Clarke, 1911, vol. 2), 58-59. Stanley, originally from Wisconsin, organized the Grand Ronde Lumber Company at Perry and the Stanley-Smith Lumber Company at Hood River. In 1904, he organized the First National Bank of Hood River with headquarters in Portland. He was president of the Railway Exchange. Source indicates Stanley’s work with the irrigation company would be an investment of four million dollars; “Right of Way Is Now Approved,” (*The Bend Bulletin*, July 21, 1909), 1. Stanley had been vice-president of the D. I. & P. Co. as early as July, 1909, and had been doing whatever he could to resolve conflicts with the Harriman railroad operations where there were surveys in areas of the Central Oregon Railroad Company’s line, which was being operated under the management of the irrigation company.

³⁰⁴ “A. L. Goodwillie Is Dead At 67,” (*Lynchburg News*, Lynchburg, Virginia, January 15, 1946), n.p.; “Local Bites,” (*The Bend Bulletin*, June 21, 1907), 5; “Election Day Soon,” (*The Bend Bulletin*, November 12, 1907), 1.

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products raised on the lands were bringing. Ten thousand copies were printed and distributed to regions from where new settlers were likely to originate.³⁰⁵ Months before the project was completed, settlers had applied for 1,845 acres by September 30, 1904.³⁰⁶ The *Morning Oregonian* said in early 1911, "Central Oregon is well styled the 'most-talked-of territory in the West' ... and the heart in geographical position and economic possibility."³⁰⁷ Indeed, a newspaper advertisement found even before the canal was completed invited prospective settlers:

FREE LAND IN OREGON. In the richest grain, fruit and stock section in the world. Thousands of acres of land at actual cost of irrigation. Deed direct from State of Oregon. WRITE TO-DAY. BOOKLET and MAP FREE. Deschutes Irrigation and Power Company, 610-11-12 McKay Building, Portland, Oregon.³⁰⁸

The D. I. & P. Co. opened real estate offices in Portland and Prineville. Promotional efforts were not historically unique to the D. I. & P. Co., nor were such efforts unique to irrigation development companies. The railroads were among the first and best to develop the marketing of government lands long before the Carey Act was enacted. Not only were corporations involved in these efforts, many cities and towns, through commercial clubs, made efforts to encourage settlers to 'buy now', and even individual land owners sought to encourage settlers to purchase from them, as 'the railroad will soon be passing by'.³⁰⁹

Schwantes observed, "All had a common desire to attract settlers and investors in order to promote economic growth and guarantee a prosperous future."³¹⁰ Promotion was not limited to printed materials. Elaborate displays at fairs and expositions promoted the irrigated land for sale. In 1908, a representative of the Oregon Commission of the Alaska-Yukon-Pacific Exposition, to be held in Seattle, visited Bend to prepare an exhibit for the event. He took three photographs of the shared headgates and photographs of a field of clover and of a large vegetable garden grown on irrigated land. These were made "into stereopticon views 10' or 20' square and were to be used to illustrate lectures given" at the exposition. Commitments from settlers to send a variety of farm products were obtained.³¹¹

The Promotional Campaign of the Great Northern Railroad

Nothing quite compared, however, to the promotional campaign by the Great Northern Railroad once the Deschutes Country had developed and 'built-up' the area's population and infrastructure and had established financial institutions³¹² and communication technology of sufficient scale to bring the region into the economic lifeblood of the nation. The Great Northern Railroad's objective was "the thorough advertising and colonization of Central Oregon." The railroad joined efforts with New York publishing house G. P. Putnam's Sons, with its actual son, George Palmer Putnam, whose writings on Central Oregon had already appeared at intervals in the *Oregonian*. Besides a bulletin to be published with Putnam's stories and photographs to advertise Central Oregon, the railroad had collected farm products to be placed on exhibit in St. Paul, Philadelphia, Boston, and

³⁰⁵ "Advertising the Country," (*The DesChutes Echo*, April 16, 1904), 1.

³⁰⁶ State of Oregon, *Report of State Land Board Relative to Desert Lands, Granted the State Under the "Carey Act" for the Period Commencing October 1, 1902, and Ending September 30, 1904*, to the Twenty-Third Legislative Assembly [Regular Session], (Salem, Oregon, 1905), 11.

³⁰⁷ "Railroads Will Open Great Inland Empire: Crook County," (*The Morning Oregonian*, February 4, 1911) 42.

³⁰⁸ Advertisement, (*Oregon Daily Journal*, July 11, 1904), 16.

³⁰⁹ Davis, H.L., *Honey in the Horn*, (New York: Avon, 1935, 1962), 330-363. This practice was so ingrained in Central Oregonians and others, it became a part of the narrative of this 1936 Pulitzer Prize-winning novel by a native Oregonian who lived in Wasco County near the Deschutes River during his teenage years. Set in the homesteading years of 1906-08, it follows the characters from the Oregon coast to the Willamette Valley and, finally, to Central Oregon, where many were expecting "old E.H. Harriman" to soon build a railroad. Mr. Pringle, of "Pringleville, the Gateway too [sic] Eastern Oregon, [offered] Home Sites on Easy Terms, Industrial Locations Free. Parties interested were invited to lay their cases before the J.B. Pringle Real Estate Company, whose offices adjoined the hotel dining-room" (p. 346).

³¹⁰ Schwantes, *The Pacific Northwest*, 288-89.

³¹¹ "More Advertising," (*The Bend Bulletin*, July 31, 1908), 1.

³¹² "A National Bank," (*The Bend Bulletin*, August 7, 1908), 1. The Central Oregon Banking & Trust Company was dissolved, and an institution known as the First National Bank of Bend, Oregon took its place.

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other locations.³¹³ Putnam moved to Bend and had a house with a basement theater built on State Street (See the Drake Park Neighborhood Historic District nomination). Schwantes noted, "The transcontinental railroads spent fortunes to advertise the [Pacific Northwest] to prospective tourists and settlers."³¹⁴

The Promotional Campaign of the Southern Pacific and the Oregon Railroad & Navigation Company

The Southern Pacific and the Oregon Railroad & Navigation Company in 1910 co-published and widely distributed a 35-page promotional pamphlet of the Central Oregon Irrigation Project called, *Redmond Now*. The railroad companies hoped to attract settlers to increase the passengers and commodities on their rail lines. The Oregon Historical Society wrote that the pamphlets stated, "Everything points to Redmond as a commercial center. Merchants, professional men, manufacturers, home-seekers should investigate Redmond now, before the railroad [the Oregon Trunk Railway] is completed, before values enhance greatly, before the big opportunities are all taken."



Railroads published a series of *Redmond Now* publications, promoting settlement in the Redmond area.³¹⁵

Joshua Binus studied the historic context of the *Redmond Now* publications for the Oregon Historical Society in 2005. He wrote, "Redmond was platted for development in 1906 and by 1910 was populated by more than 200 people. By the time the "*Redmond Now*" pamphlet was being distributed, the town already had a school, two banks, telephone service, a library, jail, lumber and brickyards, saloons, laundry, and many other small businesses. In 1911, the development of a small hydropower plant at the nearby Cline Falls provided electricity to the town, and a year later Redmond's residents supported the construction of a municipal water system. Until 1915, Redmond rivaled Bend as the commercial center of central Oregon, but that year two large lumber companies decided to locate mills in Bend. The two mills operated by the Shevlin-Hixon and Brooks-Scanlon companies led to a population boom in Bend. The fast-growing community and economy of Bend quickly eclipsed Redmond's slower growth, and in 1916, when the two communities competed for the location of the county seat, Redmond lost out to its larger neighbor."³¹⁶

The Bend Company Sells Property in Bend

The Bend Company, a new, robust firm, was incorporated in March 1911, to capitalize on the growth relative to the successful settlement brought about by the two canals, particularly the establishment of the City of Bend and the increasing farm population with growing families. *The Bend Bulletin* summarized the mega-transaction: "3,000 acres of timber lands, 2,000 acres of agricultural lands, 1,400 acres adjacent to town, 1,300 platted lots, the Pilot Butte Development Company sawmill, the power and lighting plants, city water system, and various water power and irrigation rights."³¹⁷ The properties of the PBD Co., the Bend Townsite Co., and the Bend Water, Light & Power Co., as well as valuable water power sites on the Deschutes River, all primarily held by A.M. Drake, had been sold to a syndicate of Eastern lumbermen, and Dayton, Ohio, and Oregon capitalists.³¹⁸

³¹³ "Great Northern Begins Extensive Campaign to Advertise Central Oregon," (*The Bend Bulletin*, February 16, 1910), 1. The railroad had already begun advertising in Montana and Washington.

³¹⁴ Schwantes, *The Pacific Northwest*, 291.

³¹⁵ Oregon Historical Society photo.

³¹⁶ Joshua Binus, © Oregon Historical Society, 2005.

³¹⁷ "New Company Formed," (*The Bend Bulletin*, March 29, 1911), 1. Incorporators were J.M. Lawrence, Franklin T. Griffith, and Clyde M. McKay. The firm was capitalized at \$360,000.

³¹⁸ "Town of Bend Been Bought," (*The Redmond Spokesman*, March 9, 1911), 1. Drake held the greater part of the interest in

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The Bend Company was immediately busy marketing real estate, selling at least 35 lots of business and residential properties in the first two weeks after completing the transaction.³¹⁹ “The conditions in Bend could not be more favorable for making investments in business property than they are today. There is not a town in the State of Oregon, nor is there one in the entire West where the resources and conditions are such as to make certain a city of the size Bend is sure to be,” said a 1913 advertisement.³²⁰ Of those properties purchased, The Bend Company sold 46% of the Bend Townsite lots; 41% of Park Addition lots; 31% of North Addition lots; and 73% of Center Addition lots, or an overall average of 59% of the lots in these four neighborhoods of Bend by March 31, 1916. The firm controlled all the actual business lots and nearly all the intermediate lots that could be developed into business lots.³²¹ It donated lots for churches.

The Railroad Arrives in Redmond and Bend in 1911

The development of the canals directly resulted in the arrival of railroads in the region. Bend’s first mayor, Arthur Goodwillie’s committee was successful in showing the railroad officials the richness of the Deschutes Country between 1905 and 1907. The economic stimulus and population growth which followed the completion of the Central Oregon Project could not be overlooked. ‘Railroad Day’ was put on as a promotion of the area by The Bend Company, and was celebrated in Bend on October 5, 1911, with a crowd of 1,500 to 2,000 people and distinguished dignitaries. The Oregon Trunk’s James J. Hill swept into Bend and drove the golden spike at the Bend depot marking the completion of the route.³²² Hill’s speech that day was one of great promotion of the area. He had that day seen “the vegetables and grains and grasses, the products of the soil that reflect the power and the natural wealth of the soil. And, there is no mistake about it,” he said, “it can be done because it has been done.”³²³ The fruit, vegetable and grain exhibit that day in the middle of Oregon Avenue between Wall and Bond streets reportedly “was an eye-opener not only to the visitors but to a majority of the Bend people themselves.”³²⁴ His representative, John I. Springer, had been in the region and set in motion a number of matters two years earlier, and had met with Drake and other members of the Bend Board of Trade. Hill’s operations had been advertising the lands in the area for some time by the time the railroad arrived.³²⁵ The railroad provided the avenue for settlers in greater number to arrive and for irrigated farm products, livestock, lumber, and other products to travel to regional and national markets.³²⁶

THE CENTRAL OREGON PROJECT AND THE CITY OF REDMOND

Settlement of Redmond, 1905-1911

In the Pacific Northwest, Schwantes points out, “when irrigation opened new lands to settlement, cities, and towns typically spearheaded agricultural development of the surrounding countryside and formed local markets

these before the transaction, with Frank Robertson of Portland having an interest in the Bend Townsite Co. and the Bend, Water, Light & Power Co.; “Bend Townsite Changes Hands: New Company Takes Over Holdings of Drake and Robertson, Including All the Properties At Bend,” (*The Bend Bulletin*, March 8, 1911), 1; “Townsite Deal Goes Through,” (*The Bend Bulletin*, March 3, 1911), 1; Various Deeds, see Bibliography.

³¹⁹ “Townsite Chiefs Start Work,” (*The Bend Bulletin*, April 15, 1911), 1. The spokesman for the firm said “the new company will inaugurate a vigorous publicity campaign. It is the intention to issue much advertising matter and to keep Bend in the public eye”; “Buyers Busy: Local Lots Are Selling Rapidly,” (*The Bend Bulletin*, April 26, 1911), 1. A list of buyers and lots is provided.

³²⁰ Advertisement, (*The Bend Bulletin*, July 30, 1913), sec. 3, 6.

³²¹ “Notes,” The Bend Company, Price, Waterhouse & Co., March 31, 1916; “Bend Townsite Changes Hands: New Company Takes Over Holdings of Drake and Robertson, Including All the Properties At Bend,” (*The Bend Bulletin*, March 8, 1911), 1. Among the holdings affected by the transfer included portions of the Bend Townsite, and Center, Park, and North Additions. Figures are the percentage that had been sold by March 31, 1916, of the total number of properties transferred from Drake’s holdings to The Bend Company.

³²² “Railroad Day Here Is Great Event: James J. Hill Drives Golen [sic] Spike and Bill Hanley Lays Cornerstone—Nearly 2000 People Here for Celebration,” (*The Bend Bulletin*, October 11, 1911), 1.

³²³ *Ibid.*, 8.

³²⁴ “Exhibits Surpass Expectations.” (*The Bend Bulletin*, October 11, 1911), 6.

³²⁵ “Hills Interested In Deschutes Country,” (*The Bend Bulletin*, October 6, 1909), 1.

³²⁶ “At Last,” (*The Bend Bulletin*, August 28, 1908), 4. *The Bend Bulletin* opined on the matter several years before, saying “There will be a top-notch market for every pound of hay, grain, vegetables, butter, and eggs that the country can produce.”

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for farmers.³²⁷ The D. I. & P. Co.'s Supplemental Articles of Incorporation provided: "To establish colonies, cities, villages, and towns, including the layout of said towns into lots and blocks and dedicating the streets and alleys of the same to public use."³²⁸ The company developed a plan to establish a town near the north end of the PBC in the area to be irrigated and then formed the Redmond Townsite Company. In May of 1905, as water flowed in the PBC and was delivered to settlers, engineers began surveying and staking out the town, and crews of laborers cleared streets and lots for the Townsite of Redmond in May 1905, beginning with 20 acres, with a total of 320 acres set aside. The PBD Co. platted the new town shortly thereafter.³²⁹

Redmond was located on the PBC and was named for Frank T. and Josephine Redmond, husband and wife, who had left school teaching positions in North Dakota, settling in Wasco, Oregon, for a short time. At the end of the school year in 1904, they set up their homestead tent amid the sagebrush and junipers on land to be served by the PBC. According to Brogan, "The Redmonds, records indicate, were the first purchasers of Carey Act land in Central Oregon."³³⁰ For two years, they hauled water from the Deschutes River several miles away, later building a farmhouse and outbuildings, bordered on one side by the PBC and, in 1911, on the other side by the railroad. The Redmonds exhibited the greatest number of farm products at the first (1906) and second Potato Show sponsored by the D. I. & P. Co. However, their toughest competition came from the company's experimental farm.³³¹ The city incorporated on July 6, 1910.

Challenges of Early Settlers near Redmond

Challenges of the early settlers were described by noted local author and historian Keith Clark in *Redmond: Where the Desert Blooms*: "Settlers who came to Redmond came there to farm, to improve the land, to subsist from it, or sell it for a profit. The circumstances of water made land prices higher, but the certainty of some sort of harvest was worth the gamble. When the land was acquired in its pristine state of sagebrush, juniper, and lava rock, it had to be tamed. The sagebrush and the junipers were little hindrance to pioneers whose fathers and grandfathers had cut their way west from the eastern seaboard. The rocks were something else ... Farmers built stone boats, heavy sleds upon which the rocks picked painfully from the land could be dragged to a disposal point. Some rocks defied removal, and since there was obviously no soil under them, they were left intact. Sans rocks, the sandy acres must then be leveled and made ready for planting ... All [of] this with horse and hand power from dawn to dusk."³³² Rocks moved toward the surface with plowing and the freeze/thaw cycle of winter and had to be removed every year.

Reflecting on Redmond's Settlement

A February 9, 1911, *Redmond Spokesman* article reflected the city's settlement, growth, and optimism, counting a variety of business and social opportunities in the city:

³²⁷ Schwantes, Carlos Arnaldo, *The Pacific Northwest: An Interpretive History*, (Lincoln: University of Nebraska Press, 1996), 295.

³²⁸ Oregon State Archives, Articles of Incorporation # 9549, Deschutes Irrigation & Power Company, February 10, 1904. Clause found in Article III, 13.

³²⁹ "Townsite of Redmond," (*The Bend Bulletin*, May 5, 1905), 1. B.S. Cook & Co. was the realty firm; Cook was an irrigation company engineer. Location was about four miles east of Cline Falls in section sixteen, township fifteen south, range 13 east.

³³⁰ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, February 12, 1931), n.p.; *A History of the Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 410.

³³¹ Hole, Leslie Pugmire and Trish Pinkerton, *Images of America, Redmond*, (San Francisco: Arcadia Publishing, 2009), 41. Authors cite a September 21, 1933, *Redmond Spokesman* article; "D. I. & P. Headquarters to be Located at Redmond," (*The Redmond Spokesman*, September 15, 1910), 1. The company announced, at that time, it would move its headquarters from Bend to Redmond; Ward, Elizabeth, *Redmond: Rose of the Desert*, (Redmond: Midstate Printing, June 1975), 2-3. Ward writes that Redmond got its name from a conversation Mr. Redmond had with two D. I. & P. Co engineers, Charles M. Redfield and B. S. Cook. The engineers suggested the named 'Redmond'; "Waterworks Plant: Plans Drawn for System at Redmond," (*The Bend Bulletin*, June 28, 1907), 1. By the summer of 1907, D. I. & P. Co. engineer C.M. Redfield had drawn up plans for a waterworks system for Redmond.

³³² Clark, Keith, *Redmond: Where the Desert Blooms*, (Portland: Western Imprints, 1985), 8-9. Clark's qualifications as historian and author are presented above in earlier material.

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“Redmond has a garage, two banks, two doctors, one bakery, a brickyard, four lawyers, three saloons, two dentists, two railroads, one tailor shop, a skating rink, novelty works, two feed stores, a public library, a reading circle, two newspapers, two drugstores, one harness shop, two barbershops, three restaurants, two transfer lines, one hand laundry, a city water plant, two lumber yards, one jewelry store, a fire department, a basketball team, two photographers, one millinery store, two meat markets, two bowling alleys, one furniture store, a social dancing club, a woodworking plant, two hardware stores, three blacksmith shops, an electric light system, two large general stores, five real estate agencies, four confectionary stores, a central telephone office, five church organizations, two billiard and pool halls, a brass band and orchestra, a passenger and express line, two large sale and feed stables, four fraternal organizations, one cleaning and pressing establishment, ladies auxiliary to the Commercial Club, a public school to the tenth grade, the largest department store in Central Oregon, a Commercial Club with a membership of over 100, [and] two hotels.”³³³

In an April 23, 1921, letter to Fred Henshaw of the Federal Power Commission Board of Engineers, from J.G. McGuffie, Secretary and Counsel for the Central Oregon Irrigation Company, a successor of the D. I. & P. Co., McGuffie observed “the thrifty town of Redmond with its banks and mercantile establishments is *wholly dependent upon the agricultural community surrounding it, which is the result of irrigation*” [emphasis added].³³⁴

Powell Butte is 8 miles east of Redmond and 25 miles northeast of Bend. The development of Redmond provided shopping and services much closer than in Bend for the settlers in Powell Butte.

THE RESULT of IRRIGATION: FARMING and AGRICULTURE IN THE DESCHUTES COUNTRY

D. I. & P. Co.’s Experimental Farm, June 1905

Reclaiming the arid land was a goal of the project. The company knew that most people coming to buy land and try farming on the high desert in volcanic soil did not have any experience in the conditions found there. Another factor in the success of the Central Oregon Project was the company’s research and a series of news articles and booklets dispensing information to settlers about which crops could be successful in the high desert and about the best methods to distribute the irrigation water to the crops. The D. I. & P. Co. established an ‘experimental farm’ on 100 acres just outside Bend to demonstrate what its lands could produce, as part of its promotional campaign to attract settlers to visit and buy the segregated lands. It showed positive results after a year of operation. The land was cleared and leveled, the soil was prepared and seeded, and then ditches brought water on to it, and cultivation began. Water was introduced at every part of the farm and was applied in numerous ways to a variety of crops under various conditions. Careful records of the results were kept. Grain was subjected to irrigation by different plans. Beets had the water carefully measured out to them. Data from various measurements were used as a basis for calculating how much water a farm might need for certain crops under various circumstances and conditions. The products were tried on the market and they were ‘snapped up in a hurry. No man has ever [eaten] more delicious vegetables than come from the farm,’ a reporter noted. A wide variety of experiments were conducted with multiple crops grown together. There were fields of oats and vetch, oats and peas, and the three were sown separately. There were dry-land crops and wet-land crops. After one year of development the experimental farm was a success.³³⁵ Competitions were

³³³ “What We Have in the Hub City,” (*Redmond Spokesman*, February 9, 1911), sec. 2, 1; Oregon Cooperative Work, U.S. Department of the Interior, Reclamation Service, *Deschutes River Projects, Bulletin No. 1*, (Washington: Government Printing Office, 1914), 4. The federal government reported Redmond with a population of 800 in its 1914 bulletin. Terrebonne, just five miles north, had 75 residents.

³³⁴ McGuffie, J. G., Secretary, Central Oregon Irrigation, Letter to Fred F. Henshaw, Federal Power Commission Board of Engineers, April 23, 1921.

³³⁵ “Change of a Year: Transformation at the Experiment Farm of the D. I. & P. Co.—Crops in Excellent Condition,” (*The Bend Bulletin*, June 16, 1905), 1; “Our Land and Water: Experiments to Learn Behavior,” (*The Bend Bulletin*, April 7, 1905), 1.

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held to bring in the private experiences of farmers in Alfalfa and Powell Butte and the results were published in the newspapers.

The following two photographs show promotional photographs of farming methods being tested at the Deschutes Irrigation & Power Company's Experimental Farm were aggressively published across the country. The first one appears to be in summer, the second one appears to be near harvest time.



Furrow irrigation on D. I. & P. Co.'s Experimental Farm.³³⁶ 1910

Early Farming Success

Near Bend, the ranch of Dr. C.E. Coons, in 1906, portended the success other farmers would have. All over the segregation various crops were "showing a most gratifying growth." Coons' forty-acre tract was "proving a veritable garden spot — an example of where water makes the desert bloom as the rose; a promise of what the future will bring to the upper Deschutes valley," said a report in mid-summer. His tomatoes were 10" high with broad tops and had a healthy appearance. Squash vines showed remarkable growth. Sweet corn planted two months earlier were 12" to 18" tall. String beans showed not a patch of frost and promised a high yield. Four-thousand cabbages were heading and soon to be on their way to market. Lettuce was impressive with leaves 8" to 10" long and from 6" to 8" wide. It was very crisp and tender. Potatoes planted in mid-April were already providing the doctor's family with a plentiful supply. Grains were doing well, too, with rye more than 6' high. Strawberries, gooseberries and raspberries were all growing beyond expectations and already producing fruit. The article noted, "Ranches all through this region are making remarkable showings this year, and the doctor's success is no exception."³³⁷

Despite the challenges, numerous farming success stories are associated with the Central Oregon Project. The *Morning Oregonian* observed, "Upon this land, whose soil is of rich volcanic ash, practically all the products of the temperate zone can be raised advantageously."³³⁸ Rasmus Petersen, a Danish immigrant, came to settle and farm between Bend and Redmond in 1905, initially earning wages by working to construct the PBC. He was inspired by an article written for a Portland newspaper by Governor Chamberlain after his visit to the area, beginning "If I were a young man, I would acquire an irrigable tract of land in Central Oregon." Petersen's story of arduous, backbreaking homesteading work in the ubiquitous lava rock, and subsequently developing an extremely successful irrigated farm is well documented. He acquired 200 acres by homesteading under the Carey Act and successfully grew wheat and oats, alfalfa, potatoes, and other crops, becoming financially successful.³³⁹ A September 30, 1915, article on local farms and ranches in the *Redmond*

³³⁶ *Redmond Now*, 1910, Vol. 18.

³³⁷ "The Soil Is Fertile: Crops of All Kinds Make a Fine Showing," (*The Bend Bulletin*, July 6, 1906), 1.

³³⁸ "Railroads Will Open Great Inland Empire: Crook County," (*The Morning Oregonian*, February 4, 1911), 42.

³³⁹ *Deschutes County Yesteryear*, "Came to Bend Using Wagon," (no. 12, fall 1991), 381-83. Reprinted from *The Bend Bulletin*, May 26, 1925; MacHaffie, Ingeborg Nielsen. *Danish in Portland: Past and Present*, (Tigard: Tigard Press, Skribent Press, First Printing, 1982), 9. Petersen's success was shared with other Scandinavian farmers in a 1915 letter in *The Pacific Scandinavian* [sic] from Pastor J.S. Scott of Portland's Bethany Danish Luther Church. "Rasmus Petersen harvested seventy bushels of wheat per acre," it

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Spokesman described Petersen's farm as follows: "Rasmus Petersen ranch: Fine corn and oats and 200-ton crop of alfalfa from 85 acres."³⁴⁰ He also very successfully raised dairy cows and other livestock under the irrigation system.

Petersen was among farmers in the area in 1925 that cooperated with the county agriculturalist³⁴¹ to test different strains of Deschutes Netted Gem, a variety of *Russet Burbank* potato that had been developed in the area.³⁴² A program overseen by the federal government began as early as 1904 with a letter from the Honorable Elwood Mead, chief of the irrigation and drainage investigation of the U.S. Department of Agriculture, indicating plans to establish an agricultural experiment station relative to the PBC to "conduct a scientific and practical study of the soil under sound farming operations."³⁴³ The Agricultural College conducted a demonstration farm near Redmond in 1912, growing crops used for livestock feed. The average yield of clover and alfalfa was a little over three tons per acre. Corn yielded sixteen tons of fodder, rutabagas twenty-five tons, mangels (a type of beet used for forage for cattle, chickens, swine and sheep) twenty tons, field peas three tons of hay per acre, spring barley sixty to seventy bushels per acre, spring oats fifty bushels per acre, and potatoes yielded ninety to 245 bushels per acre. The report noted, "This shows something of the possibilities of this [area], where the best modern methods are employed."³⁴⁴

Deschutes Country Average Parcel Size, Crop Report and Farm Census, 1915

A census of crops, stock and people was made in a report on the Central Oregon Project to the Desert Land Board in 1915. It included 645 farms with an average size of 48 acres, and an average size of small farms of 42 acres. The total irrigable acres reported on were 30,692. The types of crops and their acreage were as follows: Alfalfa, 7,351; clover, 2,250; grain, 6,004; potatoes, 757; orchard, 222; garden, 612; miscellaneous, 525; and total acres in crop, 17,719. The stock census found the following: beef cattle, 1,209; dairy cows, 1,004; horses, 1,174; swine, 5,589; and sheep, 443. Total rural population found in the study was 1,398, not including population in towns and cities.³⁴⁵

Markets existed in the cities, in the small towns, and within the farming communities. Settlers also had truck gardens, saddle horses, horse team to pull farm equipment, hogs, goats, chickens and a milk cow for their own use or to share with neighbors.

read. Scott quoted in *The Pacific Scandinavian* [sic]; see also National Register of Historic Places, Petersen Rock Garden, Redmond, Deschutes, Oregon, NRIS 13000859.

³⁴⁰ Hole, Leslie Pugmire and Trish Pinkerton, *Images of America, Redmond* (San Francisco: Arcadia Publishing, 2009), 47.

³⁴¹ The program was through the Oregon Agricultural College. It later became Oregon State University's Extension Service.

³⁴² Mosley, A., O. Gutbrod, S. James, K. Locke, J. McMorran, L. Jensen, and P. Hamm, "Grow Your Own Potatoes," Extension Service, Oregon State University, Corvallis, Oregon, EC 1004, Revised March 1995), 2.

³⁴³ "Will Try Our Land," (*The Bend Bulletin*, September 30, 1904), 1. Mead indicated work would be conducted under his direction for three years. A federal irrigation expert was to select acreage where conditions are best suited to demonstrating the powers of [the] soil and climate and showing the best method of treatment. This station would conduct a scientific and practical study of the soil under sound farming operations. Director Withycombe of the Oregon Agricultural College was interested and planned to "follow the work with careful attention." Mead was based out of Cheyenne, Wyoming, and was in charge of directing irrigation studies across the West. Withycombe, of the Oregon Agricultural College, now Oregon State University, became Oregon's fifteenth governor, 1915-1919; "Valley Project to Refine Great Basin Resources," (*The Register-Guard*, July 31, 1938), sec. 1, 5. By 1935, Elwood Mead was referred to as the "foremost authority in America on irrigation." Lake Mead behind Hoover Dam was named after him.

³⁴⁴ State Engineer, [Presumed to be John Lewis], *Deschutes Project: Oregon Cooperative Work*, (Department of the Interior, U.S. Reclamation Service, Portland, 1914), 123-24. These crops were primarily for dairy herd and hog raising feed. Water used was considerably less than that generally assumed to be needed in the area. The experimental station remains in Central Oregon today.

³⁴⁵ Dubuis, John, Field Inspector, *Report to Desert Land Board on Central Oregon Project*, (Salem: State Printing Department, 1915), 47.

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Farming near Redmond³⁴⁶

Bountiful Crops and Livestock in Deschutes Country, 1913

Harvest levels of all crops in 1913 were extremely high, as was production of livestock across the Deschutes Country. Farming was being increasingly diversified. Both clover and alfalfa hay products attained high levels. Big root crop yields were reported. It was said to be “probably the best all-round year they had.” Potatoes yielded as much as 400 bushels per acre. The largest yield of hay was four tons per acre. The variety of vegetables raised in the area had steadily grown in volume not simply with gardens, but in acres of parsnip, carrot, rutabaga, artichoke, cabbage, and pea. In addition to crops, cattle were being raised in increasing numbers as the dairy industry grew. The hog population was growing fast, and swine raising was popular at Powell Butte. Lesser quality livestock were replaced by the best breeds of beef, dairy and pork. The region was viewed as “on the eve of doing great things in producing butter and allied products and pork.”³⁴⁷

Settlers Organize to Market Farm Product, 1919-21

By 1919, the Deschutes County Farm Bureau had organized various settler communities for buying and selling hay. Alfalfa hay was one of the most profitable products to grow.³⁴⁸ The Oregon Cooperative Hay Growers for the Deschutes Valley was organized in Redmond in December 1921. Forty-one growers represented the farms near Bend, Redmond, Deschutes, Terrebonne, Alfalfa and Powell Butte. That year, the cooperative farmed over 1,000 acres of alfalfa, and sold 1,500 tons of hay. A policy of selling only certified product was adopted. All hay shipped out was identified with a tag: “Oregon Cooperative Hay Growers’ Deschutes Valley Hay.” Primary markets were the Atlantic seaboard and California.³⁴⁹

Farming Acreage Summary 1913, 1922, and 1931

The U.S. Department of Interior reported in 1913 that the PBC was “serving water to 25,000 acres of irrigable land, of which 16,800 acres were actually in crop.”³⁵⁰ A 1915 report to the Desert Land Board showed that of the 21,348 irrigable acres of land in 1914, under the PBC system, 18,913 acres, or 89% percent were sold. By then, the PBC had 30.1 miles of main canal and 175.08 miles of laterals.³⁵¹ The Federal Power Commission’s 1922 report stated that 19,169 acres were sold under the PBC, with 1,542 acres unsold.

³⁴⁶ *Redmond Now*,³⁴⁶ 1910

³⁴⁷ “Crops This Year Are Bountiful,” (*The Bend Bulletin*, October 22, 1913), 1.

³⁴⁸ “Farm Meeting Held At Pleasant Ridge,” (*The Bend Bulletin*, February 27, 1919), 6.

³⁴⁹ “Oregon Co-operative Hay Growers’ Ass’n Organized Here,” (*The Redmond Spokesman*, December 15, 1921); “Certified Hay Finds Favor with Buyers,” (*The Redmond Spokesman*, December 8, 1921), 1; “Hay Grower’s Organization Is Effected.” (*The Redmond Spokesman*, November 14, 1921), 1.

³⁵⁰ Oregon Cooperative Work, U.S. Department of the Interior, Reclamation Service, *Deschutes River Projects, Bulletin No. 1*, (Washington: Government Printing Office, 1914), 4. Irrigation information for the two canals is aggregated.

³⁵¹ Dubuis, John, Field Inspector, *Report to Desert Land Board on Central Oregon Project*, (Salem: State Printing Department, 1915), 9, 18. Report submitted for publishing on December 1, 1914. Irrigable acres see p. 9. Of the total irrigable acres in 1914, under the COC, 25,573 acres were sold, or 69%, suggesting the PBC system was more successful in creating farms. The COC had 44.15 miles of main canal and 187.51 miles of laterals.

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The COC had 45 miles of main canal and 11 laterals and was serving 26,400 acres.³⁵² There were 27,208 acres sold under the COC system and 9,170 acres unsold.³⁵³ The engineer reports showed that there was 'a material shortage of capacity in the main canal' and enlargement efforts were begun and undertaken as funds were available.

Polk's Deschutes County Directory for 1924-25 stated, "We have ... 1,000 farms producing alfalfa, potatoes, grain and other farm crops suitable to our soil and climate."³⁵⁴ The Bend Chamber of Commerce reported, "The number of farms in Deschutes County increased twenty-three percent from 1925 to 1930, according to United States census figures, exceeded by only three counties in the State of Oregon, and the value of farmlands and buildings increased eighteen-and-a-half percent, exceeded, again, by only three counties in the state. These Deschutes County increases were all in irrigated sections."³⁵⁵

Author and historian Phil Brogan's research a decade later (1931) summarized the work that had been accomplished by both canals during the period: "Actual construction started in 1903 and up until 1921 approximately 600 miles of canals and laterals had been built and 45,371 acres of land reclaimed for irrigation."³⁵⁶

END OF THE COMMERCIAL ENTERPRISE UNDER THE CAREY ACT SETTLERS BECOME THE CENTRAL OREGON IRRIGATION DISTRICT, 1921

To complete the June 17, 1907 requirement of the State Desert Land Board to turn the D. I. & P. Co. over to the settlers within 10 years, a proposal arose in 1915 that the Central Oregon Irrigation settlers begin to form a district.³⁵⁷ At that time, irrigation economist Ray Palmer Teele, M.A., wrote in his 1915 book, "Few large Carey Act enterprises have reached the stage of being turned over to the purchasers of water rights."³⁵⁸ A district, it was proposed, could be perfected by the settlers themselves without any great difficulty. Specifically, it noted: "After the district has been organized, arrangements can be made with the Central Oregon Irrigation Company to acquire all its water rights, construction works, contracts with the State, and all the liens on unsold reclaimed lands within the limits of the Pilot Butte and Central Oregon canals. It is to the best interests of all those who now own land under the system and who have acquired water rights there to formulate some feasible plan of reorganization. It is also evident that the Central Oregon Irrigation Company has certain rights which cannot be eliminated or overlooked. It would seem also that the best interests of the neighboring towns, as well as the settlers on the project would be best protected by the management of all matters pertaining to the project by the settlers and farmers themselves, as would be the case under the district idea."³⁵⁹

A date for the vote to form an irrigation district was set by the Desert Land Board. The vote was in favor of forming a district to take over and operate the irrigation system in lieu of a Water Users Association, as had been provided for in the company's contract with the State of June 17, 1907.³⁶⁰ Following the settlers' formation

³⁵² Ibid, 58.

³⁵³ Federal Power Commission, *Report to the Federal Power Commission on Uses of the Deschutes River, Oregon*, (Washington: Printing Office, 1922), 72. There were 27,208 acres sold under the COC system and 9,170 acres unsold.

³⁵⁴ Polk's Deschutes County Directory 1924-25, 40.

³⁵⁵ Cramb, L.K., *The Irrigation Situation In Central Oregon: A Proposal that the Federal Government Provide Storage*, (Bend: Bend Chamber of Commerce, October 15, 1931), sec. I, 18.

³⁵⁶ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 21, 1931), n.p. These figures include both Pilot Butte and Central Oregon canals.

³⁵⁷ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 3, 1931), n.p. On October 27, 1915, Olaf Laurgaard, a well-respected irrigation engineer, proposed that the Central Oregon Irrigation settlers form a district. He wrote to Oregon Governor Withycombe (1915-1919) for whom he had consulted on irrigation matters. His suggestion, therefore, was regarded as worthy of consideration. It was Laurgaard's view that all the land in private ownership, Carey Act lands, homesteads, tracts under the Pilot Butte and Central Oregon canals, as well as some other lands should be included within the limits of an irrigation district.

³⁵⁸ Teele, Ray Palmer, M.A., *Irrigation in the United States*, (New York: D. Appleton, 1915), 200.

³⁵⁹ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 3, 1931), n.p.;

³⁶⁰ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 10, 1931), n.p. The vote was on December

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of the district, various issues ensued with the irrigation company. Ending a long engagement between the settlers and the company, Judge John McCourt, Multnomah County Circuit Court, Portland handed down a decree. The effect of the Final Decree, known as the Dietrich Decree, was to turn over the ownership and operation of the irrigation system to the settlers organized as the COID. It transferred water rights, irrigation canals, and other assets roughly valued at \$3,000,000³⁶¹ to the COID. The settlers who had water rights had become a district. The 20 years of the project as a commercial enterprise under the Carey Act came to an end.

THE CENTRAL OREGON CANAL SERVES THE COMMUNITY OF ALFALFA

The COC was integral to the settlement and growth of the Alfalfa Community. According to the Deschutes County Clerk's records, the first deeds in the sections around T17S, R 14E, Section 23 were recorded the year that the canal construction began, in 1905. Alfalfa is a small farming community in Deschutes County. It is located about 15 miles east of Bend and on the northern edge of the Oregon Badlands Wilderness Area. It is about halfway between Bend and Prineville (Figure 1). Alfalfa was named for the alfalfa forage crop commonly grown in the area. Irrigation water arrived in 1908 and settlement came with it. The Alfalfa post office was established on January 29, 1912. The Alfalfa community and agricultural area is known as an irrigated oasis in the desert. The community is surrounded by dry scrub lands that are primarily in county, state or federal ownership (Figure 22). Cattle and sheep ranches and stables for horses are common there. Parcels were generally 40 acres, but by 1918, the Johnson Ranch was 1000 acres.³⁶²

The first one-room school, called the Guerin School, was constructed in 1908. Steve Lent, Crook County historian, wrote, "The completion of the Central Oregon Irrigation Canal opened up the area to major irrigated farming. Prior to the arrival of irrigation, the plains were dryland farmed and homesteads were scattered across the landscape. The community region continues to be a highly productive farming and ranching zone."³⁶³ Zell Pond, named for Benjamin F. Zell, a settler who was murdered by a farmhand, and Reynolds Pond, named for William H. Reynolds, a settler from Iowa, are fed by the 'I' Lateral of the COC, and are popular local recreational areas. Shumway Lake is served by the 'J' Lateral and is now part of Brasada Ranch Resort and is north of Alfalfa.

17, 1917. The contract with the State stipulated that the system must be turned over to a water users' association within five years of completion of construction. Approval of the newly formed COID was formally given by the Desert Land Board on February 26, 1918; "Change In D. I. & P. Co.," (*The Bend Bulletin*, March 15, 1907), 1. In March, 1907, Ohio owners had disposed of their interests in the D. I. & P. Co. to other owners who then owed all the stock. Soon thereafter a new Agreement was signed between the State and the owners of the irrigation company who were J. Edwin Sawhill and John Steidl of the Deschutes Country, and Edward A. Baldwin, Frederick S. Stanley and Jesse Stearns of Portland. Johnston and Turney were among the Ohio sellers; "The Deschutes Irrigation & Power Co. to State Land Board, The Amended and Supplemental Agreement," [Filed] August 7, 1908, vol. 5, 150-67. Under the date of June 7, 1907, a new Agreement (contract) was entered into between the D. I. & P. Co. and the State Land Board embracing the remainder of the land in Segregation List No 6, not under contract with the settlers, and the land in Segregation List No. 19, comprising some 56,000 acres gross, and lying in the bend of the 'horseshoe' formed by the Pilot Butte and Central Oregon canals. (Segregation List No. 19 was the C.C. Hutchinson's Oregon Irrigation Company segregation that the D. I. & P. Co. had acquired in the 1904 buyout.)

³⁶¹ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 20, 1931), n.p. Legally, the case was "Dietrich vs. the Central Oregon Irrigation Company"; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 21, 1931), n.p. The statement issued by the district board of directors, who were John A. Riggs, C.H. Hardy and J.G. McGuffie, said, "On July 9, 1921, a decree was entered in the circuit court of Multnomah County, Oregon, in the district's suit against the Central Oregon Irrigation Company, commanding the company to turn the irrigation system over to the settlers on the first day of August 1921. By this decree the district and the holders of contracts upon the segregation receive a prior right for water for the amount provided in the decree over any rights of the company, and the relative rights of the company and the district are very clearly established." Officially transferring to the COID, the title to the water rights and system of the Central Oregon Irrigation Company, the company's deed to the settlers was received in Redmond on the morning of August 1, 1921. The transfer of the management of the company to the district did not involve any difficulties, for at the special meeting of the district directors in Redmond on August 2nd George W. Kanoff, superintendent for the company, was secured as manager of the new district; "C.O.I. President Takes Bride," (*The Redmond Spokesman*, September 23, 1921), 1. Frederick S. Stanley was president of the irrigation company at this time.

³⁶² Lent, Steve, *Central Oregon Place Names*, Volume III, Deschutes County, 1, 2.

³⁶³ *ibid.*

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A man works on an evaporation pond and weir next to a lateral and irrigated field on the Central Oregon Canal near Alfalfa³⁶⁴

THE CENTRAL OREGON CANAL SERVES THE COMMUNITY OF POWELL BUTTE

Powell Butte is an unincorporated ranching community in Crook County with a population of 1,768. It is adjacent to Prineville, which was platted in 1877, and is the Crook County seat and the main shopping and governmental center for Powell Butte. The Powell Butte community is centered around T16S, R14E, Section 23, at the base of Powell Buttes. Powell Butte is located a half hour's drive northeast of Bend, nine miles southwest of Prineville and eight miles east of Redmond. The post office at Powell Butte was established on March 12, 1909. The area was dry farmed prior to 1908 and water had to be hauled from springs near the base of Powell Buttes for domestic use, orchards and livestock. The first school there was LaFollette School, established in 1893.

The irrigation companies did not establish the community of Powell Butte. Settlement in Powell Butte began twenty years previously, in the 1880s, because of its proximity to the Crook County seat in Prineville and partly because the area has deeper soil and less rock than other areas. The Central Oregon Project facilitated widespread irrigation of crops and attracted more people to the community. Some of the land in Segregation List #6 was in the Powell Butte area and the irrigation companies were required to provide water to the purchasers of the land they sold. Providing enough water in the canal and laterals to reach settlers at the end of the line proved to be exceedingly expensive and challenging. In August 1905, the original shared flume at the south diversion point had been enlarged again and could convey 650 cubic feet per second for both the PBC and the COC. It was figured that it took one cubic foot per second for each 160 acres to be irrigated. The first six miles of the COC were constructed at the time. It was thought that there would be enough water in the COC system to serve 96,000 acres, including Alfalfa and Powell Butte. But there were concerns about the capacity at the original intake at the river and the City of Bend was pressuring the D. I. & P. Co. to move the intake to the north side of town so that more water would flow through town during irrigation season. The project's chief engineer, Redfield, thought he had found a solution to both problems by moving the intake for the PBC and separating the two systems.

In September 1907, surveyors were north of Bend locating the best place for the proposed North Dam and diversion point. The dam would be 39' tall and 313' wide. Water would be delivered to the PBC by a proposed 1.41-mile-long North Canal. Redfield's plan was to disconnect the PBC from the eight miles of canal located between the original diversion point and the eastern end of the new North Canal. As conceived that year, the dam would also divert water for the Powell Butte area and it would be conveyed by a new 28-mile canal that would run northeast to Powell Butte, bypassing the COC entirely. But his idea was found to be too expensive, and it was decided to water Powell Butte with increased flows in the COC, when the PBC had its own diversion point at the North Dam. The dam and the North Canal were completed for \$220,000 and connected to the PBC in 1912.

³⁶⁴ Undated photo in Bowman Museum Collection, Prineville, Oregon.

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Work on the COC with large crews of men and horse teams continued while Redfield planned the new dam and connecting canal. Teams completed the canal to Alfalfa in 1907. In the fall of 1907, the crews were north of Alfalfa in the old Dry River bed. Plans were to build a large flume and a stave pipe to cross the Dry River north of Alfalfa. A camp composed of 35 men and 18 horse teams installed the trestle and redwood pipe. The parts for the pipe were made to order to Redfield's specifications by the Douglas Fir National Pipe Company of Olympia, Washington. The pipe was 1,620' long and 56" in diameter.³⁶⁵ The canal and pipe carried enough water to irrigate 12,000 acres. The trestle and pipe were completed in January 1908 for a total cost of \$10,000.



Ca. 1908 photo of the dry terrain at Powell Butte with water flowing in the Central Oregon Canal.³⁶⁶

While the structure was being constructed, crews were also working on the canal north of the siphon to Powell Butte. When the siphon was completed, the water was emptied from the pipe into an open irrigation canal 16' wide and 4' deep. During the 1908 irrigation season, water was flowing in the COC for 45 miles across the high desert, from the Deschutes River to Powell Buttes. Lateral construction continued, and the system was enlarged in some locations through 1914. By 1908 the main canal was completed.

Little Houston Lake and Houston Lake are about four miles north of Powell Butte and five miles west of Prineville. The 1908 irrigation ditches filled an old lakebed that was dry most of the year, creating an extensive wetland. The lakes are named for Sallie and John Thomas 'Tom' Houston, who came west from North Carolina in 1885. He was a sheep and cattle rancher and allowed friends to hunt ducks at his lakes.³⁶⁷

Crook County historian Steve Lent wrote, "Powell Butte has developed into one of the premier farming areas of Central Oregon, with mint, hay, and potatoes being the main crops"³⁶⁸ (Figures 1 and 23).

SETTLEMENT AND FARMING IN THE NOMINATED CENTRAL OREGON CANAL HISTORIC DISTRICT

The historic district is just south of Bear Creek Road and is between Ward Road on the west and Gosney Road on the east. Bear Creek Road was an old wagon road that was the main arterial road connecting Farewell Bend (the name of the community called Bend before it was platted in 1904 and incorporated in 1905) to the then county seat, Prineville, and the Bear Creek region of Crook County. It was the only through-road east of Farewell Bend at the time that the Central Oregon Project was initiated.³⁶⁹ Gosney Road was constructed in 1920 by Deschutes County and named for property owner Glen R. Gosney, who petitioned for the road. Ward

³⁶⁵ *Crook County Journal*, Prineville, OR, July 14, 1910, 1.

³⁶⁶ Photo in Bowman Museum Collection, Prineville, Oregon.

³⁶⁷ Lent, Steve, *Central Oregon Place Names*, Volume 1, Crook County, 157.

³⁶⁸ Lent, Steve, *Central Oregon Place Names*, Volume 1, Crook County, 251-254.

³⁶⁹ Lent, Steve, *Central Oregon Place Names* Volume III Deschutes County, 12, 13.

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Road is named for Arthur Ward, another property owner who petitioned for the road in 1921.³⁷⁰ The 1928 irrigation maps show bridges over the COC at Ward Road and Gosney Road (Figures 11, 12). Access to the farms was good and Bend was only 5 miles away when the canal was planned. Due to the phenomenal city growth, it was only 1.5 to 2.0 miles away during the historic period.

Weekly, the local *Bend Bulletin* newspaper reported on a few visitors staying in hotels or looking for land. A typical article would be like the following: May 5, 1909, page 5, "Phillip C. Burt of Battle Creek Michigan, has been spending the past week in Bend. Mr. Burt is looking over the section with a view to investing in land.

Settlers in the historic district included five women and people from Austria, Australia, Yugoslavia, Norway, England, and at least eight states. Typical of the thousands of settlers in the area, a minority of settlers along the canal in the district, such as dairy farmers Philip Burt and the Bradetich Brothers, became long-term, successful farmers. Most settlers supplemented the farm income by holding other occupations, because productivity of the land was marginal. Others were not successful farming in the rocky, volcanic soil in the high desert with its short growing season and harsh winters and sold their land. Others lost their land through COID, tax or mortgage foreclosures, often in the 1920s and 1930s. One settler in the district rebought their land when finances improved.

Water Rights on Parcels around the Historic District

The main canal in the COCHD passes through four Sections: T18S, R12 E, Section 1; T18S, R13 E, Section 5; T18S, R13 E, Section 6; and T18S, R13 E, Section 8 (Figure 3). Each section contains approximately a square mile, 640 acres of land. Some of the land was offered for sale with appurtenant water rights (Figures 11 and 12.). The section with the highest percentage of irrigation rights was in T18S, R12 E, Section 1: 59%. T18S, R13 E, Section 6 had 29% of the land with appurtenant irrigation rights. T18S, R13 E, Section 5 had only 12% of its land with irrigation rights. T18S, R13 E, Section 8 offered less than 1% of its land with irrigation rights. All the irrigation rights on the downhill (north) side of the canal are for water delivered by the COC. Some of the water on the high side (south) is delivered by the Arnold Canal in the Arnold Irrigation District.

Table 2: Acres of Land with Water Rights in Vicinity of Historic District

| Location by Section | Acres with Water Rights | Percent of Land with Appurtenant Water Rights |
|------------------------|-------------------------|---|
| T18S, R12 E, Section 1 | 378.0 | 59% |
| T18S, R13 E, Section 5 | 76.5 | 12% |
| T18S, R13 E, Section 6 | 190.5 | 29% |
| T18S, R13 E, Section 8 | 57.3 | 0.8% |

Settlers Purchase Land in the Historic District

The point of developing the irrigation system was to make a profit for the investors by selling reclaimed land to settlers under the Carey Act contract with the State. If all went well, and it did for the most part, the income from property sales would exceed the expenditures needed to construct the dam and canals, build urban infrastructure, run the experimental farm, hold local promotional events, and promote the project nationally. To be financially successful and meet the terms of the contract with the State of Oregon, the companies had to attract settlers and provide irrigation water to the highest point on their land. The success of the settlers was important to balance the equation.

Access to the area from Prineville and Bend was on Bear Creek Road and was very good, and its location was close to Bend. But, due to the hills, slopes, and rock, the land south of Bear Creek Road between Ward Road

³⁷⁰ Lent, Steve, *Central Oregon Place Names* Volume III Deschutes County, 101, 300.

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and Gosney Road was not the best in the area and was settled after better land was taken up. The best land was purchased in 40 to 160-acre parcels, while the canal was under construction. Poorer land was settled last or not at all. Land on flat terrain with water rights and sparse, loose rock and deeper soils was the most valuable. Taller juniper trees and denser vegetation often signaled deeper soil but created more work to clear the land.

Figures 14a., 14b., and 14c. illustrate the size and location of the original parcels and original owners (settlers) in the four sections crossed by the COCHD. Of the 640 acres in T18S, R12 E, Section 1, with 59% of the land having water rights, all the deeds of sales were recorded after COID was formed, between 1921 and 1954. Original owners included Dragan Wuyo Mirich with 280 acres, George and John Bradetich with 160 acres, Lilla I. Ford with 120 acres, and Mike Dragosavac with 80 acres.

Of the 640 acres in T18S, R13 E, Section 5, with only 12% of the land with water rights, a deed to the 120 unsold acres in Segregation List # 6 was returned in 1937 by Oregon State to the federal government. The remainder of the land was sold between 1913 and 1922. Original owners included Dora McNaught, R. A. Puett, John O'Donnell, and Theodore E. Olson, each with 80- acre parcels; and William P. Erickson and partner John Pinoniemi, Oscar J. Erickson, Esther Cockerhan, Charles Durand, and Ivan R. Knotts, each with 40-acre parcels.

Of the 640 acres in T18S, R13 E, Section 6, with 29% of the land with water rights, 120 acres were returned in 1937 by Oregon State to the federal government. The remainder of the land was sold between 1910 and 1951. Dragon Wuyo Mirich bought 160 acres. Philip C. Burt bought 160 acres. J. S. Smythe bought 80 acres. W. F. McNaught, Elizabeth Dixon, and Felix G. Allen each bought 40-acre parcels.

Of the 640 acres in T18S, R13 E, Section 8, with 0.8% of the acreage with water rights, 160 acres were returned in 1937 by Oregon State to the federal government. The remainder of the land was sold to private parties between 1910 and 1924. Quinton W. Hungate and Ada Hanson Stowell each bought 160-acre parcels. Ben Alsup bought 120 acres. Norman Wygand bought 40 acres.

Of the 24 owners in the four sections, Dragan Wuyo Mirich owned the most land, with a total of 440 acres. When Lilla I. Ford sold her 20 acres to John Bradetich in 1927, the Bradetich bothers then owned 380 acres. Five women (20% of the owners) were original settlers of the parcels. Esther Cockerham, Beth Dixon, Lilla Ford, Dora McNaught, and Ada Hanson Stowell owned a total of 440 acres.

To determine the effect of the promotional efforts, using the federal census for 1900, 1910, and 1920, it was determined where many of the owners were living before they settled on the land in the historic district. They came from many countries and states. Some examples are Mike Dragosavac from Austria, Oscar Erickson from Norway, George and John Bradetich from Austria, Esther Cockerham from England, Ada Hanson Stowell from Australia, Dragan Mirich from Yugoslavia, Beth Dixon from Pennsylvania, William F. McNaught from Iowa, Dora McNaught from Washington, R. A. Puett from North Carolina, Ben Alsup from Iowa, Amy and Philip Burt from Illinois, Ivan Knotts born in Oregon, and John S. Smythe from Ohio.

Many of the settlers were farmers, but many held other occupations. Dragan Mirich was a well-known stone mason in Bend, who built the railroad overpass across Third Street in Bend, the tunnels between Reid School, Bend High School and the Amateur Athletic Club for the shared steam heating system, the 1930 rock Bradetich house and the stone milk house in 1935, and other stone buildings in Bend. Ben Alsup was a civil engineer who designed roads. Ivan Knotts was a lumber handler in a saw mill.

After working in a Portland lumber camp, John and George Bradetich worked on the vexed Tumalo Project dam. Then they worked in 1916 at the Shevlin-Hixon Company Lumber Mill. In 1919, they purchased their first 160-acre parcel in the historic district. They grew potatoes and started the first Grade A dairy in Central Oregon with cows they purchased from a dairy in Weiser, Idaho. They also raised swine.³⁷¹

³⁷¹ Deschutes County Historical Society, A History of the Deschutes Country in Oregon, 147-149.

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1932 photo of the 1926 Bradetich dairy barn, pastures and the 8-bedroom 1930 house built by Dragan Mirich.³⁷²

The State Land Board had established the rule that within three years from the date of filing on the land claims, the settlers were required to cultivate 1/8 of the irrigable acres and live on the land for at least 90 days. Or, the settler could choose to cultivate 1/4 of the irrigable acres, build a house containing not less than 200 square feet of floor space and reside on the land for a period of not less than seven days.³⁷³

Crops in the Historic District

In addition to the Bradetich Dairy, some of the other settlers were successful. The owners who were the most successful and stayed the longest had land with appurtenant water rights. Others grew dry crops, such as wheat and rye, on un-irrigated land. Irrigated crops included orchard hay, apple trees, potatoes, and alfalfa. Many of the families raised milk cows, swine and chickens and sold milk, butter, meat, and eggs to stores in Bend and to other settlers. Most grew half-acre vegetable gardens for personal use. Raising honeybees was popular and honey was sold. Settlers helped one another in many ways and shared equipment and livestock.

Subsequent Owners T18S, R12 E, Section 1

In 1935, five parties owned land in T18S, R12 E, Section 1: George and John Bradetich with the 320 acres in the west half where their dairy and house were located, Dragan Mirich with 200 acres, Livola Barnes with 40 acres, Mike and Denny Vadick with 40 acres, and the US government with 40 acres (Figure 15).

In 1944, the land ownership in that section stayed the same as it was in 1935 (Figure 16).

In 1972, there were no original owners in this section. Twelve owners owned smaller parcels and Arrowhead Acres had been platted into a rural subdivision. C. W. Rickabaugh was the largest landowner and had purchased Mirich's 200 acres. Charles Boardman had purchased part of the Bradetich land along with P. Dinsmore, Ralph W. Boese, James Turner, Pete Lorcher, and Jerome A. Scott. John L. Williams, Hobart Starr, the Unitarian Universalist Church of Portland, and Thomas Wallace owned land on the eastern half of the section (Figure 17).

³⁷² Photo is in the Patricia Kliewer personal collection, Bend, Oregon. Photo looking south toward canal.

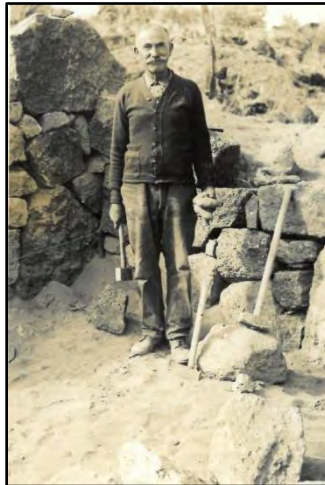
³⁷³ Hall, Michael, Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, A Historic Context, 27.

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Undated photo of Dragan Mirich, the owner of the most land in the historic district.³⁷⁴

Subsequent Owners T18S, R13 E, Section 5

In 1935, in T18S, R13 E, Section 5, three original owners still owned land. Charles Durand owned 40 acres, and Margaret H. O'Donnell (widow of John O'Donnell) owned 80 acres. Robert A. Puett owned 120 acres. Other owners included the US government with 120 acres; the COID with 120 acres, L. Aulman with 80 acres, G. H. Hart with 40 acres, and Bert Torkelson with 40 acres (Figure 18). Richard Torkelson told of his father Bert Torkelson, who owned land in T18S, R13E, Section 5, giving a good milk cow to a neighboring family that was not making enough money from the land to feed their children.³⁷⁵ Torkelson Road is named for his family.

In 1944, the ownership in this section had changed somewhat. The Great Depression was hard on the settlers. The County had taken ownership of the O'Donnell land. The Federal Land Bank had taken over the Puett Ranch. Durand's land was taken over by COID. COID owned 160 acres in this section. Hart had sold ten acres to G. E. Lepps (Figure 19).

By 1972, in Section 5, the owners were all different. Wallace Crawford owned 360 acres. Deschutes County owned 120 acres. Clarence Cavin owned 45 acres and W. A. Van Hise owned 75 acres. Ben Sebrill owned 40 acres (Figure 20).

Subsequent Owners T18S, R13 E, Section 6

In 1935 in T18S, R13 E, Section 6, Phillip Clifford Burt was the only original owner who still owned land, 40 acres. His wife, Amy A. Burt owned 40 acres. The United States owned more acres, 280 acres. The County owned 80 acres. George Rastovich of Yugoslavia owned 120 acres. F. Wheeler and Paul S. Hackett each owned 40 acres (Figure 18). Ida and Paul Hackett raised about 200 turkeys for a time on their 40 acres.³⁷⁶

In 1944, Amy A. Burt owned 80 acres. George Rastovich owned 120 acres. The United States owned 240 acres and the COID owned 80 acres. The State owned 40 acres. Monie Zink and Laura E. Newlands each owned a 40-acre parcel (Figure 19).

By 1972, Danny Rastovich owned 120 acres. C. W. Rickabaugh owned 160 acres. The US owned 120 acres. COID owned 40 acres. H. A. Starr, E. R. Fraser, Eldon J. White, and Hallie E. Hamilton each owned 40-acre parcels. J. F. Schilling owned 30 acres and Greg Hunt owned 10 acres (Figure 20).

³⁷⁴ Undated Deschutes Historical Society Photo.

³⁷⁵ Interview with Richard Torkelson, June 10, 2017.

³⁷⁶ His wife Ida Hackett was from Russia. Interview with their grandson, Paul Hackett in Bend, September 2017.

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The 100-year old Amy and Phillip Burt Barn. The canal is about 150 yards to the south (right).³⁷⁷

The Burts were successful farmers, owning the land until Amy's death in 1964 and Phillip's death in 1966. Their land had water rights for all but the portion near Bear Creek Road that was covered by rock outcroppings. Philip Burt planted apple trees and raised cows. An interesting article on page one of the Aprils 30, 1910 *The Bend Bulletin* tells about the need to keep explosives used to clear rocks and stumps out of the reach of cows. "Escapes Horrible Disaster, Non-Explosive Curious Cow Tries Dynamite Diet Without Harm". "Last Sabbath morn an appalling accident almost disturbed the serenity of the home of Mr. and Mrs. Philip Burt, settlers on a 'forty' five miles east of town. "Tudy' their prize cow, in a fit of excessive curiosity, mistook a box of dynamite for a new breakfast food. Laboring under the not unnatural delusion, the bovine investigator started to assimilate the contents of said box at the rate of five sticks a minute or thereabout. Just then, however, the danger fraught was ended by the appearance of the cow's owner; it is said, however, that in view of the character of Tudy's repast he was exceedingly gentle in his remonstrance with her, failing entirely to apply the stick he had brought for the purpose."

Another of Burt's cows made news all over the state including in newspapers in Portland, Heppner and Independence, Oregon. An article on December 12, 1919 in the *Independence Enterprise* said, "Bend. One of the most famous dairy cows in the state changed hands Wednesday when Pricilla, heavy milk producing Holstein, was sold by Phillip Burt to D. A. Slaughter of Deschutes. Pricilla produced 26,000 pounds of milk last year, has a one-day record of 106 pounds of milk and a 15-day record of 63 pounds of butter fat."

Subsequent Owners T18S, R13 E, Section 8

Of the 640 acres in T18S, R13 E, Section 8, in 1935, the section with less than 1% of the land awarded water rights, no private parties owned any land in 1935. Deschutes County owned 440 acres. The US owned 160 acres. The Central Oregon Irrigation Company had foreclosed on Wygand's 40 acres and owned them (Figure 18). As described in Section 7, Wygand's 40 acres were sold by the company to Sidney S. Stearns, a well-known cattle rancher in 1920, through a Central Oregon Irrigation Company mortgage lien foreclosure proceeding. He was the highest bidder of \$2,673.58 at an auction at the courthouse door. Stearns widow, Francis Stearns, sold the 40 acres of scrub land to the COI District in 1932 for the COID reservoir.

In 1944, Section 8 had one private owner. R. D. and Ada Stowell had purchased 160 acres from the County. She had been an original settler in this section, lost her land, and re-purchased it. The County owned 280 acres. The US owned 160 acres. COID owned 40 acres (Figure 19).

By 1972, the US owned 120 acres while all the remaining acreage had been sold to private parties. E. R. Perkins and others owned 210 acres. Russell Bryant owned 120 acres. Loren B. Holzouser and others owned 100 acres. COID still owned 40 acres. A. D. Smith owned about 20 acres and James Crowell owned about 30 acres³⁷⁸ (Figure 20).

³⁷⁷ Photo by Patricia Kliewer, November 1, 2017, looking northwest.

³⁷⁸ All deeds are from the Deschutes County Clerk, Bend, OR

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Farming in the rocky sections of the High Desert was difficult and nearly impossible without irrigation water. At each point in time, from 1905 to 1972, increasingly more land in the district was in government ownership and was reverting to scrub land. Even successful settlers, such as Phillip Burt, had sold most of his unirrigated land prior to 1944, and was farming part of a 40-acre parcel near Bear Creek Road.

Today, the four 640-acre sections contain some irrigated farms and a large amount of land that was never cleared or cultivated or that has reverted from dry farming to native vegetation, including a 79.60-acre parcel owned by the Bend Park & Recreation District and several parcels owned by COID. Most of Bradetich's land is now subdivided into rural residential lots. Some of Mirich's land is being farmed by the Suzanne and Gary Grund family (51.09 acres) and Tony Licitra (58.96 acres). Looking at the aerial photo of current conditions, it is apparent that the entire western third of the land around the COC in the historic district is now subdivided into rural residential lots of primarily 1 to 3-acres, including some hobby farms with personal livestock and small irrigated pastures. The middle third of the CO Canal in the historic district has entirely scrub land south of the canal and hobby farms and scrub land on the north side of the canal. The eastern third of the CO Canal in the historic district has entirely scrub lands on the south and only one irrigated farm to the north, at the corner with Gosney Road (Figure 2).

Conclusion of Settlement in the Historic District

Due to the thin topsoil and rock in the district being undesirable for farming, no settlers purchased land along the canal in the district when it was being constructed. The presence of the canal did attract settlers to some, but not all, of the land along the canal in the historic district, because most of it did not have water rights. Rural residential development on 1 to 3-acre lots with water rights occurred between Ward Road and the Bear Creek Ranch Bridge, in 1/4th of the district, primarily between 1965 and 1975. However, most of the historic setting, with its farms, rolling hills, rock outcroppings, and native juniper and sagebrush vegetation that was present in 1921 near and alongside the canal on the eastern 3/4ths of the district, remains. The historic district uniquely demonstrates the power of the canal and irrigation water to attract settlers, and the progression of settlement from large to smaller parcels over the past 100 years. The largest parcels along the district's length have never been irrigated or developed, and historic vegetation was never cleared. The nominated stretch uniquely displays both the historic setting at the time the canal was constructed and the use of the irrigation water for beneficial uses and agriculture. The small irrigated hobby farms and larger commercial farms today with irrigation ponds and irrigated pasture for livestock represent the purpose of the canal: to attract settlers and farmers to Deschutes County by supplying irrigation water to the arid land. The area is accessible to the public, especially along the 80-acre parcel owned by Bend Park & Recreation District. Its interpretation can be achieved in an attractive, well-organized fashion without crowding or overwhelming the resource itself.

THE CENTRAL OREGON CANAL DELIVERS WATER TO MANY LAKES AND PONDS

In addition to the hundreds of irrigation water storage ponds on private property, a unique feature of this canal is the number of large, engineered reservoirs and recreational lakes and ponds that are filled by the water diverted from the Deschutes River and conveyed by the COC. The 6-acre Mayfield Pond is in the BLM Mayfield Pond Recreational Area, four miles northeast of the historic district and north of Alfalfa Market Road in T 17 S, R 13 W, Section 23. Camping and fishing are popular activities there. Just 1 mile south of the Alfalfa Store, on the 'I' Lateral, is the 12-acre Reynolds Pond on BLM land in T17S, R14 E, Section 35. A 0.75-mile pedestrian trail circles the shoreline. Non-motorized boats and fishing are the main activities there.

Further east on the 'I' Lateral is Zell Pond. Zell Pond is 7.7 acres in size and is partly on BLM and partly on private land in T17S, R14 E, Section 25. An above-grade-piped stretch of the 'I' Lateral of the COC forms a berm to hold water in Zell Pond. Near the Dry River was the 11.7-acre Shumway Lake in T16S, R14E, Sections 28 and 33, on private property. It has been re-created for the Brasada Ranch Resort. Near the terminus of the canal between O'Neil Hwy. and Hwy.126, and northeast of Powell Butte, is Houston Lake

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(sometimes spelled Huston Lake), located on private property. At an elevation of 3,022, just south of a slough, Houston Lake and Little Houston Lake are natural lakes that occupy low points in the area. They were dry most of the year, until irrigation ditches supplied water to them in 1914. Other lakes filled by water from the canal are unnamed. The ponds and lakes on BLM land were created to provide wildlife habitat for fish and wildlife as well as recreational opportunities for the public.³⁷⁹ The 'C' Lateral that begins in the historic district runs north of Highway 20 and Alfalfa Market Road and ends in another large, unnamed pond and wetlands at Terry Drive, near Stenkamp Road, near the Bend Airport.



The 'D' Lateral, just east of the historic district, conveys water to the 6-acre Mayfield Pond at the Mayfield Pond Recreation Area north of Alfalfa Market Road near Bend. Photo taken looking east.³⁸⁰



Reynolds Pond, a public recreational pond covering 12 acres on land managed by the BLM, is filled with water from the 'I' Lateral of the Central Oregon Canal. Photographer looking east.³⁸¹



Zell Pond is 7.7 acres and is partly on BLM property near Alfalfa. It is also filled from the 'I' Lateral. Photographer looking southeast toward Bear Paw Butte.³⁸²

³⁷⁹ Interview with BLM staff at Prineville BLM office, May 19, 2017.

³⁸⁰ Patricia Kliewer photograph, May 21, 2017.

³⁸¹ Patricia Kliewer photo, taken on April 4, 2017.

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Shumway Lake, now on Brasada Ranch Resort, is filled with water from the 'J' Lateral of the Central Oregon Canal. Photographer looking east.³⁸³



Ditch from the Central Oregon Canal enters the private Little Houston Lake on Houston Lake Road near Powell Butte. Photographer looking south³⁸⁴



Water flows through a gate from the Central Oregon Canal to a cattle ranch, with Houston Lake in the background. Photographer looking southwest.³⁸⁵

³⁸² Patricia Kliewer Photograph, August 16, 2016.

³⁸³ John Kohlmoos Photograph, June 25, 2009.

³⁸⁴ ibid

³⁸⁵ Patricia Kliewer Photograph May 21, 2017.

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CONCLUSION OF CENTRAL OREGON PROJECT

In 1921, when the assets of the Central Oregon irrigation Company were transferred to the water users formed as the COID, the water rights, irrigation canals and other assets were valued at \$3 million. Between 1903 and 1921, approximately 600 miles of canals and laterals had been built for both the PBC and COC systems. The North Canal Dam, the PBC, the COC and the North Canal had been completed. The irrigation companies had founded the towns of Bend, Redmond, and Deschutes (platted as Centrallo in 1911 along the railroad about half way between Bend and Redmond) and facilitated the rapid growth of Alfalfa and Powell Butte and rural Deschutes County, which was carved from Crook County in 1916. The irrigation system had transformed the appearance of the high plateau on the east side of the Deschutes River. The developer’s connections resulted in James J. Hill completing the railroad from the Columbia River to Bend in October 1911. The arrival of the railroad, in turn, facilitated the development of the huge timber industry in Central Oregon and brought in settlers and goods and allowed a nationwide market for timber and agricultural products

In 1922, the Federal Power Commission summarized the accomplishment of providing irrigation to 57,089 acres of land in a report on the Central Oregon Project. By any standards, the Central Oregon Project was successful and has transformed the high desert plateau and brought settlement and agriculture to the towns that he founded and the surrounding area that likely exceeded Alexander Drake’s 1900 vision.

Table 3: Irrigable Acres in 1922 under the Central Oregon Project by Canal System³⁸⁶

| IRRIGABLE ACRES BY CANAL SYSTEM, 1922 | | | |
|--|-----------------------------|-------------------------------|------------------------------|
| | SOLD IRRIGABLE ACRES | UNSOLD IRRIGABLE ACRES | TOTAL IRRIGABLE ACRES |
| COC | 27,208 | 9,170 | 36,378 |
| North Canal/PBC | 19,169 | 1,542 | 20,711 |
| TOTAL | 46,377 | 10,712 | 57,089 |

CHARACTER OF OTHER SEGMENTS OF THE CENTRAL OREGON CANAL

The historic district includes 3.4 miles of the 47-mile-long COC. The historic district begins at mile 7 .75. This portion of Section 7 compares the canal in the historic district to the other 43.5 miles of the main canal . As was stated previously, the COC follows the highest trajectory possible in the natural terrain of the high desert plateau. It is about 80’ wide and 4’ deep in the Bend area and narrows and gets shallower as it delivers water to laterals, sub-laterals and ditches. The ‘I’ Lateral diverts nearly a fourth of the remaining flow of the main canal at the southern end of Alfalfa, after which the main canal is visibly smaller. It is 2’ wide and 3” deep as it conveys water to the last pond and through black plastic pipe toward the Crooked River, its terminus (Figures 6, 7, 8, 13, 22 and 23).

For the most part, the canal flows over a plateau that gradually slopes down 701’ toward the northeast. However, it winds through low hills on the southwestern edge in the historic district and again on the north edge of the plateau when it flows downhill from Powell Buttes toward the Crooked River. As will be described more fully in Section 8, the first step in its construction was surveyors marking the route of the canal and the distribution system of laterals so that water could flow downhill by gravity from the main canal to the high points of each 40 to 160-acre parcel of land in Segregation List # 6 that would be sold to settlers by the project’s promoters. The property owners were responsible for digging and maintaining ditches from the laterals to irrigate their land.^{387 388}

³⁸⁶ Hall, Michael, Irrigation Development in Oregon’s Upper Deschutes River Basin 1871-1957, A Historic Context Statement., 28.

³⁸⁷ Energy Trust of Oregon, Inc. Open Solicitation, Juniper Ridge 3/27 MW Hydropower, January 23, 2008, page 1.

³⁸⁸ Google Earth 2014 web site.

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Most of the flumes and large ponds along the canal are indicated on the historic USGS Quadrangle maps. None of the original wooden flumes nor the Powell Butte Siphon remains a part of the main canal. Some wooden flumes remain on laterals and ditches, such as along Torkelson Road. The setting of the canal has changed dramatically over the last 100 years, which was its purpose: to attract settlement and agriculture to the arid west. Between 1904-1914, the canal was entirely located in rural lands, when it was constructed. Now, it traverses seven miles through a dense urban area within the city of Bend. Parcel sizes continue to drop from the historic 43-acre average to a 6-12-acre average today. Originally, the water was diverted from the river into a 1.5-mile long wooden flume that was supported by wooden trestles. Next, it flowed in an open canal and an occasional flume for most of its length to Alfalfa, where it flowed through the redwood pipe of the Powell Butte Siphon. From there to its end, it was open.

Today, the first 6,261 feet of the COC are piped (where it was in a wooden flume). The non-historic pipe empties into a constrained and altered open canal with repaired native rock rip-rapped sloping sides and a rocky bed in an urban density housing development. That stretch is scheduled for piping. The canal flows under the four-lane Bend Parkway through a concrete underpass and enters the Bend commercial/retail area.



The 20-year old, four-lane Bend Parkway crosses over the Central Oregon Canal in Bend, just south of Reed Market Road. Photographer looking west.³⁸⁹

As it enters the Bend commercial district next to the Bend Parkway, the canal generally runs along the northern edge of a gentle slope, has a cut in the earth on the south side and a 7'-tall berm to hold the water in on the north side. The beds are nearly solid rock flows, and many rocky locations hold water year around. Generally being 40' to 80' wide and 2' to 8' deep, the canal flows through urban commercial, industrial, and residential subdivisions and is piped under urban roads and streets. Next, the canal winds through the commercial area along Third Street (US Business Hwy 97) in Bend, where it is wide and shallow. Motels back up to its banks, and shopping centers are beside it. The 'A' Lateral delivers water north for six miles to urban residences and commercial users, a trailer park, and an industrial park, and then turns to the northeast crossing the city limits and irrigates small hobby farms of ½ acre to 20 acres northeast of the city, in an area that is urbanizing. The 'A' lateral ends in two ponds near Butler Market Road and Hamhook Road.

³⁸⁹ Patricia Kliewer photo, October 23, 2015, after irrigation season.

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The Fred Meyer Shopping Center at Third Street is on the south side of the Central Oregon Canal. The shallow canal bed is cut on the south side (right) and is bermed on the north side. Looking southeast.³⁹⁰

Reed Market Road is a primary east-west road in Bend, running between the Deschutes River and 27th Street, near the eastern city limits. Reed Market Road parallels the canal though new three-story multi-family and two-story single-family residential subdivisions and an industrial park between Third Street and 15th Street. The canal is heavily constrained by the urban development and has been altered to facilitate roads and bridge construction.



Looking east, Reed Market Road parallels the shallow, rock-strewn canal. It is spanned by a 2015 bridge to the industrial park along American Lane.³⁹¹

At the north end of the industrial park, the wide and shallow canal flows under the historic Union Pacific Railroad Bridge



The Union Pacific Railroad tracks cross the canal west of 15th Street, between the industrial park an urban residential area of southeast Bend. The canal remains wide and shallow with crude, inconsistent rock scattered on the sides and a rocky bed.³⁹²

³⁹⁰ Patricia Kliewer photo, October 23, 2015.

³⁹¹ ibid

³⁹² Patricia Kliewer photo, October 23, 2015.

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East of the railroad, a series of urban-density, single-family housing developments have surrounded the canal, and lots extend beneath it. A well-maintained 10'-12' wide graveled pedestrian trail was put in by the Bend Metro Park & Recreation District alongside the canal under an agreement with COID, and with the property owners' permission. The canal is surrounded by homes on 1/5 acre or smaller lots in the eastern portion of Bend. In this stretch, there are many concrete repairs and alterations to the canal embankments and bed. Locked green metal pipe gates operated by COID prevent other vehicles from driving on the path. There are many points where the canal was cut from nearly level terrain and there is no berm. Lawns and other residential landscaping extend to the edge of the water. The canal next passes through a large mobile home park on the west side of 27th Street.



Urban housing developments surround the altered shallow canal with no berms near Ferguson between 15th and 27th Streets. The graveled pedestrian trail follows the canal through the neighborhood.³⁹³

East of 27th Street, the canal is bordered by the graveled urban pedestrian trail and is walled on the north side of the trail with wooden privacy fences along the canal easement, installed by the developer of the modern, urban density residential subdivision. For the ½ mile between the urban subdivision and Ward Road, scrub land, uncultivated land and some residences on two-to-five-acre lots are scattered over the area. Most of the segment passes through scrub land of sagebrush and bitterbrush. The largest parcel west of Ward Road is the unirrigated 20 acres owned by the Eastern Cascades Model Railroad Club, which houses an extensive indoor model railroad system and a mile of outdoor track in 1:8 scale. Ridable electric, gas and steam trains run on the outdoor track, which is continuously being extended and improved for the club members. An open house each fall is a popular event, where adults and children wait in long lines to ride the trains repeatedly. The remaining rural residential lots in the area west of the district are under 5 acres, and most are not irrigated. One irrigation pond is in the area. Some business development in metal buildings is visible from the canal. Only two parcels in the area are irrigated and cultivated for hay production: a 5-acre parcel off Thunder Road and a 10-acre parcel at the end of Modoc Road. Neither is visible from the canal. A paved two-lane county road, Stevens Road, is adjacent to the canal. The canal bed in that area is composed of solid rock flows and blasted rock, and the sides are low and without berms or riprap. The canal is wide and shallow. When it reaches the Ward Road Bridge, the canal has dropped 100' since leaving the river.

³⁹³ ibid

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East of 27th Street, the canal is bordered on the north by privacy fencing and a public pedestrian trail along an urban single-family residential development. The canal is wide and flat with no berms. Facing east.³⁹⁴

The historic district begins at the eastern edge of the Ward Road Bridge right-of-way, 0.75 miles east of the Bend city limits and continues for 3.4 miles through the low hills. It is deeper and has a berm on the downhill side, and often on both sides. It was described in detail previously. The canal winds through irrigated rural residential subdivisions, hobby farms with livestock and pasture, large commercial farms and ranches and public scrub lands. Parcels get progressively larger as the water flows east. Twelve ditches fill over a dozen irrigation ponds and irrigate pastures and crops on both sides of the canal. The historic district uniquely portrays the progression of settlement in the county, from 40-160-acre parcels in the historic period, to 20-40-acre parcels in the 1940s and to the subdivisions with 1-5-to 3-acre parcels in the 1960s and 1970s. It also shows the results of applying irrigation water on arid farmable land and displays the scrub land with rock outcroppings that remains where land was not farmable and did not have or retain irrigation rights.

As the water flows under the Gosney Road Bridge, it enters a narrower 'U'-shaped stretch with a berm on the downhill side and a cut on the northern side, along the remainder of the hilly terrain. The bed has small rocks solidly covering it. No lava flows are apparent. The canal passes through large farms, scrub lands in public ownership, and 10-acre rural subdivisions, mostly without irrigation rights. It has an inconsistent cut on its south side with sparse rock scattered along the inside slope and a silted embankment covering any rip-rap on the north side. The ditch rider road continues on the north edge of the canal, with locked non-historic green metal pipe gates across it where it meets roads. About a quarter mile east of Gosney Road, one of the last wooden flumes bridged a difficult stretch of canal, but it has been removed and replaced with berms. The 'D' Lateral diverts water north in this area, delivering water north of Highway 20 and under the Alfalfa Market Road to the BLM's Mayfield Pond and Recreation Area. It then drops the last few feet down to the flat plateau near Gribbling Road at elevation 3600, where it transitions to long, straight, and more level, segments.



East of the Gosney Road Bridge as the "U" shaped canal leaves the historic district on the remainder of the sloped area.³⁹⁵ As it nears US Highway 20, it enters nearly flat terrain, straightens, widens and becomes shallower, with sparse rock rip-rap and lower berms on the downhill side.

³⁹⁴ Patricia Kliewer photo, March 10, 2017.

³⁹⁵ Patricia Kliewer photo, October 23, 2015.

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Central Oregon Canal on flat terrain at its intersection with US Highway 20, between Harmony Lane and Gribbling Road. Photographer looking southwest.³⁹⁶

Where it reaches the flat plateau and crosses under US Highway 20, the elevation is 3551. The canal has dropped 207 feet since it began at the Deschutes River. North of US Highway 20, the land has fewer rock outcroppings and surface rock, but has more unirrigated large parcels of scrub land in public and private ownership. The canal begins a stretch of consistent width and depth for the next ten miles. The canal bed has less rock. Being shallower, the sides do not have much riprap. Most of the dry land has never been in private ownership, has native vegetation, and is not irrigated or cultivated. Scattered irrigated lands are close to the main roads and the main canal. As the 'G' and 'H' Laterals branch off, the canal gets smaller. In the agricultural area and cattle ranches southwest of Alfalfa, it is more consistent in shape and riprap is nearly nonexistent. Many private bridges to cattle ranches cross the canal.



Water flows out of the main canal just west of Dodds Road to fill an unnamed reservoir with wetlands on scrub land. Photographer looking south.³⁹⁷

The canal crosses under Dodds Road at elevation 3434 and flows north along irrigated cattle and horse ranches with large irrigation ponds. At the northern end of the road, it turns east into dry public scrub land managed by the BLM near its intersection with Walker Road. The large 'I' Lateral splits off at elevation 3405 and significantly reduces the size of the main canal. The 'I' Lateral to southeastern Alfalfa parallels the canal for a distance, then continues to run east, while the main canal turns north. The 'I' Lateral fills many ponds and wetlands, including Reynolds Pond and Zell Pond, and provides water for hay ranches east and south of Alfalfa, irrigated by circular pivot sprinkler systems.

³⁹⁶ Patricia Kliewer photo, August 16, 2016.

³⁹⁷ ibid

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The 'I' Lateral branches off the main canal on public land near the intersection of Dodds Road and Walker Road, significantly reducing the flow in the main canal. Photographer looking south.³⁹⁸



The 'I' Lateral is on the south (right) and the main Central Oregon Canal is on the north, left. Looking east.³⁹⁹



One of a series of three large unnamed ponds with wetlands next to the canal southwest of Alfalfa. The community of Alfalfa is on the far side of the pond and the Powel Buttes are in the distance, looking north.⁴⁰⁰

The narrower main COC leaves ponds and scrub land and flows under Walker Road in Alfalfa at elevation 3368, having dropped 390 feet since it left the Deschutes River. It is close to the Alfalfa Store and gas station at this point. It enters a more intense agricultural area, with irrigated hay farms and cattle and horse ranches in the center of the community of Alfalfa. A significant amount of water is distributed to grow pasture, Timothy hay, orchard grass and alfalfa. In Alfalfa, the canal becomes nearly straight, stays west of the Dry River canyon, and has no visible rock or berms, with the canal crossing farmable land and filling big irrigation ponds

³⁹⁸ Patricia Kliewer photo, August 17, 2016.

³⁹⁹ ibid

⁴⁰⁰ Photo by Patricia Kliewer, August 17, 2016.

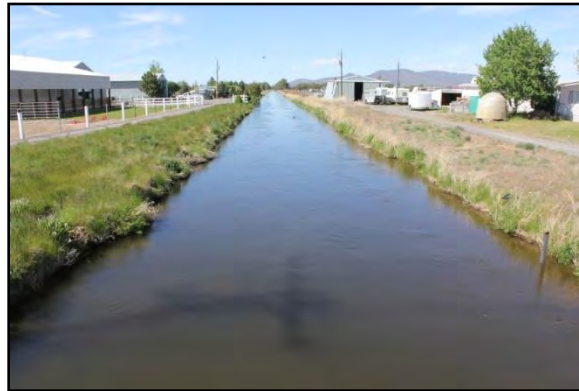
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and extensive wetlands.



Looking north in Alfalfa from the Alfalfa Market Road Bridge, elevation 3361, at 25890 Alfalfa Market Road, where the straight, shallow canal flows between horse ranches.⁴⁰¹

North of Alfalfa, the canal flows toward Powell Buttes, looming directly north of Alfalfa, leaving private irrigated land, and enters a long stretch of dry public scrub land. It flows in a shallow canal through dry, unfarmable land along the western edge of the Dry River Canyon.



The canal flows through dry sagebrush and small juniper trees along the western edge of the Dry River Canyon between Alfalfa and Powell Butte. Looking southeast from the canal embankment.⁴⁰²

Above the Brasada Ranch Resort and Equestrian Center in the Dry River Canyon, which formerly was Shumway Ranch, the canal enters a non-historic steel pipe called the Powell Butte Siphon which drops down into the bottom of the Dry River Canyon and crosses under Johnson Ranch Road. The 20-year-old steel pipe is buried beside the road in the County right-of-way and follows the road north past the entrance to the resort golf course and visitor center until it climbs the eastern edge of the canyon, crosses Shumway Road, and dumps into an open canal once more. Brasada Ranch Resort, a re-created Shumway Pond, the Golf Course and Equestrian Center are irrigated with water delivered by the 'J' Lateral.

⁴⁰¹ Photo by Patricia Kliewer, August 17, 2016.

⁴⁰¹ Photo by Patricia Kliewer, May 22, 2017.

⁴⁰² Photo by Patricia Kliewer, May 22, 2017.

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The water forcefully rushes out of the Powell Butte Siphon pipe on the eastern ridge of the Dry River and enters a dispersion pond at elevation 3229 and begins its northerly route toward Powell Butte. Looking north.⁴⁰³

In the community of Powell Butte, the 30' wide and 2' deep canal is consistent in width and depth and runs in gentle curves or in straight lines as it flows north and east through irrigated farmland on the western and northern edges of the Powell Buttes. It has either no berms on flat stretches or short, inconspicuous berms on the downhill side of gentle slopes. Irrigated grasses grow up to the water's edge. Rock is sparse. Most parcels are 10 to 160 acres and are irrigated and in pasture, although there are some rural residential subdivisions and 1-acre lots. Horse and cattle ranches are common, as are sheep and goat herds. A ditch rider road parallels the canal on the west/north side. In Powell Butte, a large volume of water is split off to the laterals.



The Central Oregon Canal in Powell Butte serves productive cattle and horse ranches and hay farms. Looking north from the Powell Butte Highway Bridge.⁴⁰⁴

The canal quickly flows toward the east, a quarter mile south of the Powell Butte Post Office, the Powell Butte Country Store and Gas Station, the Powell Butte Christian Church and Powell Butte Community Charter School. It turns north and crosses Ochoco Highway # 126 at elevation 3223, having dropped 535 feet from the Deschutes River. It flows north through wetlands and pastures, east of the Powell Butte School. It is now eight miles east of Redmond and eleven miles west of Prineville. In a nearly straight line, it flows north in a grass-lined dirt channel about 13' wide and 3' deep. Many driveways cross it with home-made wooden bridges. No rock is visible in the canal and both sides have no berms or ditch rider roads. In this short stretch between Highway 126 and Houston Lake Road, the canal drops 126 feet in elevation.

⁴⁰³ Photo by Patricia Kliewer, May 22, 2017.

⁴⁰⁴ Photo by Patricia Kliewer, May 22, 2017.

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North of the community of Powell Butte, the canal rapidly drops in elevation and is about 13' wide and flows under many wooden bridges for driveways.

Near Houston Lake Road, the canal stays as high as it can in elevation while winding west through the gentle hills. The ditches deliver the water in both north and south directions to large wetlands, irrigated fields and to the low points at Little Houston Lake and Houston Lake. The main canal divides just west of NW Serrano Lane in Powell Butte, and water runs down the hill in a 12" diameter black corrugated black plastic pipe to irrigation ponds and ditches on Lark Gardens Cattle Ranch. The western portion of the main canal continues northwest to ditches and irrigates other ranches, finally dumping in to a large unnamed pond in T14S, R14E, Section 26. Dry River, the O'Neil Highway and the Crooked River are within a mile of the terminus of the canal. A 12" diameter black corrugated plastic pipe is often dry, but occasionally delivers some water to the Crooked River. The canal has dropped 701 feet since its diversion from the Deschutes River.



The canal is about 8 inches deep and 48 inches wide where it splits into two ditches at Serrano Lane and Lark Gardens Cattle Ranch, northwest of Powell Butte. Photo looking west from 1570 NW Serrano Lane.



Looking north down Serrano Lane to the end of the ditch conveying water from the canal in the irrigated Lark Gardens Cattle Ranch.⁴⁰⁵

⁴⁰⁵ Photo by Patricia Kliewer, May 22, 2017.

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**COMPARISON OF THE CENTRAL OREGON CANAL HISTORIC DISTRICT
(WARD ROAD – GOSNEY ROAD SEGMENT) WITH THE BRASADA RANCH SEGMENT**



Photo looking southwest from the stilling pond on the east bank of the Dry River, across the site of the Powell Butte Siphon, stave pipe and trestle. Some remains of the historic flume outlet structure are in the foreground.⁴⁰⁶

In 2017, the National Park Service determined that the Brasada Ranch Segment of the COC was eligible for listing on the National Register of Historic Places. The segment is in the Dry River Canyon between Alfalfa and Powell Buttes, at Township 16 South, Range 14 East, Section 28. Brasada Ranch is a private, 1,800-acre, gated, golf community and resort with nearly 1,000 residential lots (with more phases being planned), an 18-hole golf course, a restaurant and overnight lodging. This is the site of the historic Powell Butte Siphon that included the impressive wood stave pipe, previously described in this nomination, and which was designed by Deschutes Irrigation and Power Company's project engineer Charles M. Redfield (the Brasada Segment nomination inaccurately attributed it to Levi Wiest).

The DI&P Co. canal construction crews completed the open canal to Alfalfa in 1907. In the fall of that year, the crews were north of Alfalfa at the spot that they needed to cross the 65-foot-deep Dry River canyon. The crews built an intake structure at the top of the west bank of the river gorge that would funnel water from the 20-foot wide open canal into a 5-foot diameter wooden pipe. Water dropped into the wire-wrapped redwood pipe, called a stave pipe. The stave pipe transported the water down the west side of the canyon wall, across the dry river bed, and up the east side of the canyon, using the principal of a siphon. There, the water dumped into an elevated wooden flume that was mounted on a wooden trestle. The flume transported the water for the short distance to the outlet structure and then into a small stilling pond. The pond was at the newly constructed section of open canal that delivered water north to Powell Butte, on the east side of the Dry River. The structures allowed the irrigation company to connect the two open canal segments, one on either side of the Dry River that were already constructed, both north and south of the location.

The parts for the siphon pipe were made to Redfield's specifications by the Douglas Fir National Pipe Company of Olympia, Washington. The pipe was 1,620' long and 56" in diameter.⁴⁰⁷ The canal and pipe carried enough water to irrigate 12,000 acres. A camp composed of 35 men and 18 horse teams installed the trestle and redwood pipe. The pipe was partially buried across the river bed. While the intake structure, the trestle and flume, and other structures were being constructed, and the pipe was being assembled, crews were also working on the canal north of the siphon to Powell Butte. When the siphon was completed, the water was flowing for the first time into the open 16' wide and 4' deep irrigation canal that was heading to Powell Butte. The trestle and pipe were completed in January 1908 for a total cost of \$10,000. During the 1908 irrigation season, water was flowing in the COC for 45 miles across the high desert, from the Deschutes River to Powell Butte. By 1908 the main canal was completed. A bottleneck had been identified in the Ward Road to Gosney

⁴⁰⁶ Photo by Patricia Kliewer, taken on December 10, 2017.

⁴⁰⁷ *Crook County Journal*, Prineville, OR, July 14, 1910, 1.

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Road segment, which was enlarged. Lateral construction continued, and the system was enlarged in some locations, including a second time at the Ward Road to Gosney Road segment, through 1914. Both the Brasada Ranch site and the Ward Road to Gosney Road segment display how the irrigation company met unique geologic and geographic challenges to build the canal to Powell Butte.

COID replaced the aging historic structures at the Powell Butte Siphon in 1978. The modern intake structure is concrete, with power driven gates. The steel siphon pipe is not visible because it is completely buried along Alfalfa Road, a paved two-lane county road that traverses the center of the river bed. The unused wooden trestle was disassembled in 1993-1994. Re-usable lumber was stacked northeast of the stilling pond. Today, part of the trestle lumber is adaptively re-used as a golf cart path to bridge a low spot between holes on the Brasada golf course. It creates a dramatic entrance to the resort, as the entry road passes under it. A few deteriorating concrete and wood remain of the historic structures are all that is left on the site.



The intake structure with a trash rack to keep debris out of the steel pipe that crosses the Dry River bed. The wastewater spillway gate is on left. Photo shows recent major alterations to the canal bed and side slope.⁴⁰⁸

The area at Brasada Ranch that was found to be eligible for listing also included a 600' length of functioning, open, historic canal south of the intake structure, on the west bank of the Dry River. However, COID recently bulldozed the canal bed and eastern embankment, deepening it and removing the riprap and other historic features. The non-contributing headgate and headwall to the 'J' Lateral that formerly served the Shumway Ranch and now serves the resort, remains in its historic location in this stretch, but was significantly upgraded and altered in 1978 and is non-contributing. One would have to see historic photos of the Powell Butte Siphon and learn about it to imagine it crossing the Dry River. The remains of the other structures and the stretch of open canal are secluded and inaccessible to the public. Brasada Ranch is entirely private property.

In contrast to the historic site at Brasada Ranch, the nominated stretch of the canal is an exemplary 3.4-mile-long living stretch of the historic canal with very few alterations and many intriguing components. The public will be welcome to the 80-acre public Bend Park & Recreation District property that is traversed by the canal in the nominated historic district. While the open canal segments at Brasada Ranch are heavily altered and it is primarily the site of the siphon that was removed forty years ago, the canal in the historic district continues to function as it has for the past 110 years. The canal there holds more than twice as much water as the Brasada Ranch segment and is much larger, up to 78' wide, than the 16'- 22' wide by 4' deep canal at Brasada Ranch. The historic district has 21 functioning headgates, with many being historic contributing, that lead to three laterals and 14 ditches that serve rural patrons up to five miles away.

The historic district displays the progression of settlement, from a parcel of 80 acres to parcels of 1 acre. Nearly three-fourths of the canal in the historic district passes through rural farms with irrigated land that was sold to settlers by the canal developers. It also includes some unirrigated and unfarmable scrub lands that did not have water rights and were not included in Segregation List 6. The same lava tubes, caverns, hills and dips

⁴⁰⁸ Photo by Patricia Kliewer, taken on May 22, 2017.

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that made the land undesirable for farming and difficult to irrigate by gravity, resulted in the segment being labor-intensive to build. In contrast, the Brasada Ranch segment was formerly in the Shumway livestock ranch but is now in a residential golf course community and resort. The Shumway Pond is now rebuilt and is smaller and surrounded by homes. The canal in the nominated historic district continues to function for agriculture. A dozen irrigation ponds are adjacent to it, as are many irrigated pastures for livestock, displaying the agricultural use of the water. The historic canal itself with its tall berms and extensive rock left in the bed, dozens of drill holes, and Burt Chute display how the construction company met challenges and the techniques they used between 1905 and 1914. One can see and feel the full power of the mighty canal that changed the appearance and history of the high desert, east of the Deschutes River and south of the Crooked River, and that brought thousands of settlers from all over the world.

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Ann Gallagher, June 23, 2017, Denver, Colorado (Charles Monteith Redfield)
Linda Gelbrich, May 22, 2017, Corvallis, OR (Mirich Family)
Jason Gillam, November 1, 2017, Bend, OR (Philip Burt Ranch)
Linda Gilliland, April 5, 2017, Bend, OR (Bradetich Family)
Mac Goelst, May 26, 2017, Bend, OR (Bradetich Family and buildings constructed by Dragan Mirich)
Suzanne Grund, March 2, 2017, Bend, OR (Rickabaugh Family)
Gary Grund, April 3, 2017, Bend, OR (Farming, historic structures and early residents)
Paul and Olivia Hackett, September 27, 2017, Tepic, Mexico (Ida and Paul Hackett Family)
Loretta Ann Hadley, October 31, 2017, Bend, OR (Dragan Mirich)
Jim Hollander, November 2, 2017, Bend, OR (COID Ditchrider)
Carla and Gregory Hunt, October 31, 2017, Bend, OR (Historic structures)
Lynn Schilling Johnson, November 1, 2017, (Paul S. Hackett Turkey Ranch and Burt's Bridge.)
Dan Rastovich, April 5, 2017, Bend, OR (Rastovich Family)
Charles Morris Redfield, June 28, 2017, Mill Valley, CA (Charles Monteith Redfield)
Robert Stephen, October 31, 2017, Bend, OR (Wooden Flume, Stearns Wasteway)
Richard Torkelson, June 10, 2017, Bend, OR (Burt Chute, bridges, roads, and Torkelson Family)
David Turner, May 26, 2017, Bend, OR (Burt Chute)

Contributors

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Steve Lent, Bowman Museum, Prineville, OR, staff.
Tony Licitra, long-time COC property owners.
Linda Orcelletto, Orcelletto Communications, Bend, OR.
Jeff Perreault, retired USGS hydrologist, Bend, OR.
Janice and David Turner, long-time COC property owners.
Jenna and Noah Walden, COC property owners.
Aleta Warren, long-time PBC property owner.

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Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67 has been requested)
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

recorded by Historic American Engineering Record # ORE, 9-BEND, 3 and 2D Name of repository(ies): _____

Historic Resources Survey Number (if assigned): N/A

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10. Geographical Data

Acreage of Property 41.35 acres

(Do not include previously listed resource acreage; enter "Less than one" if the acreage is .99 or less)

Latitude/Longitude Coordinates

Datum if other than WGS84: N/A
 (enter coordinates to 6 decimal places)

| | | | | | |
|---|-------------------------------|----------------------------------|---|-------------------------------|----------------------------------|
| 1 | <u>44.050970°</u> Latitude | <u>-121.243548°</u> Longitude | 3 | <u>44.034928°</u> Latitude | <u>-121.193444°</u> Longitude |
| 2 | <u>44.050970°</u> Latitude | <u>-121.193444°</u> Longitude | 4 | <u>44.034928°</u> Latitude | <u>-121.243548°</u> Longitude |

Verbal Boundary Description (Describe the boundaries of the property.)

The nominated area in the historic district includes the segment of the COC within the west half and the northeast quarter of Township 18 South, Range 12 East, Section 1, W.M.; the north half and southeast quarter of Section 6 and the southwest quarter of Section 5 and the northwest quarter of Section 8 of Township 18 South, Range 13 East, W.M. Its western boundary is the eastern edge of the Deschutes County right-of-way for Ward Road. Ward Road runs north-south along the western section line of T18S, R12W Section 1. The historic district's eastern boundary is the western edge of the Deschutes County right-of-way for Gosney Road. Gosney Road generally follows the north-south midsection line through Sections 5 and 8 of T18S, R13E. The northern and southern boundaries are lines drawn 50' on either side of the centerline of the COC, establishing a 100' wide corridor. The district includes the canal, historic-contributing features and its historic setting within the 100-foot corridor. The district excludes outdoor lighting, private fences and other structures within the nominated corridor that are not related to the operation of the COC and not noted in Section 7 of this document (Figures 2-5).

Boundary Justification (Explain why the boundaries were selected.)

The boundaries of the COCHD were determined in accordance with the *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978* MPD, through which the property is nominated. In addition to referring to the National Register Bulletin #21 (NRB), "Defining Boundaries for National Register Properties," the MPD further elaborates on how to determine the boundaries of historic districts nominated through that cover document (pp. F-33 to F-35). The MPD and NRB provide that the boundary should be drawn to embrace the distribution of intact resources that reflect the historical significance of the nominated resource. Secondly, historic and legal boundaries may be used when these include the significant resource and its associated features. Finally, in areas where the natural or cultural features or the legal boundaries do not provide a suitable boundary, the boundary may be drawn such that it includes the full extent of the eligible property, and a reasonable immediate setting, such that the boundary provides "reasonable limits" to the nominated area.⁴⁰⁹ The MPD acknowledges that in some cases, a combination of these factors may be used to form suitable boundaries.⁴¹⁰

For historic districts comprising segments of canal and related secondary elements, the MPD indicates that the nominated area should be based (in part) on the density of secondary features. In cases where there are few secondary features, a longer segment of the principal feature should be nominated. By contrast, if there are many secondary elements present, a shorter segment of the principal feature may be sufficient. The COCHD

⁴⁰⁹ Seifert, Donna J. *Defining Boundaries for National Register Properties*. National Register Bulletin #21. U.S. Department of the Interior, National Park Service, 1997 (rev.). p. 3-4.

⁴¹⁰ MPD, p. F-34.

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meets both intentions, through its inclusion of many secondary features, as well as representing the longest segment of irrigation canal nominated in the State of Oregon to date, twice the length of the next longest National Register-listed segment (PBCHD).

The COCHD boundaries are determined through a combination of factors that embrace the extent of the canal and its appurtenant secondary features that relate to the historical significance derived from the uniquely difficult terrain through which the canal had to pass in order to deliver water to lands beyond this volcanic, rocky terrain. On the east, the boundary is set at the 1968 Gosney Road Bridge that crosses over the canal, just over water-level. This boundary is appropriate, in that beyond this point, the canal very quickly enters into soils that did not require the intensive effort to clear and was constructed much more quickly and easily. As a result, the character of the canal changes to a distinctively "U" shape (distinct from the trapezoidal profile found within the nominated district) that, while retaining historic integrity, does not reflect the significant difficulty encountered during the construction of the nominated area. Because this change in character occurs very close to Gosney Road but is not readily evident when the canal is fully watered, the Gosney Road Bridge was selected as a reasonable point at which to draw the boundary, and includes the contributing elements related to the significance of the nominated area. Similarly, the western boundary of the district is at a 1968 two-lane concrete bridge, the Ward Road Bridge, built outside of the period of significance. West of the bridge, the canal flows through nearly flat terrain in an increasingly urbanizing environment with a substantially altered setting with wooden privacy fences, vinyl decorative fences, and wide public pedestrian and bike trails within 50 feet of the centerline of the canal, representing a substantial break in the continuity of the historic canal and historic setting. It is a segment of canal that has only two headgates, and two residential sized irrigation ponds and no commercial agriculture. Because the canal crosses many property boundaries on a continuous right-of-way, and none are evident to the observer, no legal boundary was found to be suitable. In consideration of these factors, and the clear visibility of the bridge even when the canal is fully watered, the Ward Road Bridge is a reasonable boundary.

Because the canal varies significantly in width across the length of the nominated area, and in order to embrace the several related secondary elements that branch off of the canal (such as the heads of laterals and ditches that emerge from headgates along the canal), and that provide important contextual resources for the interpretation of the canal system, the width of the nominated segment is reasonably set at 50 feet in both directions from the centerline of the canal, for a total, continuous width of 100 feet, conforming to the extent of the original and current easement held by COID. The boundary of the COCHD includes the entirety of the nominated stretch of the COC itself and associated structures that are necessary to convey and deliver irrigation water to patrons, including turnouts, headwalls, pipes, a flume, a chute, drops, catwalks, wasteway, and embankments. It includes the immediate historic setting within the 100' corridor as described above. The wide variation in the canal's width in this stretch precludes a tighter boundary; however, the selected 100' corridor includes the canal itself and most of the associated historic features and structures necessary for the irrigation system to convey water to its patrons.

The district boundaries selected include a stretch of the canal that is sufficient in length to include the various slopes and flat terrain that the canal passes through during its 47 mile-length. In the district, there are flat areas in which the canal was scraped out after cuts were made in the earth on both sides of the bed, sloping areas that required a cut on the high side and a berm of various heights on the low side, and areas of exceptional drops in the terrain that originally needed to be spanned by a wooden flume that was later replaced by the tallest berms on the irrigation system to allow the water to flow at the desired elevation. The district boundaries include the typical elements of an irrigation system: the historic canal, two laterals, one sub-lateral, headwalls, pipes, catwalks, a chute, falls, a flume (remains, see archaeological site form 35DS3033, Figure 32), embankments and 16 ditches. It includes many headgates to regulate water flow to the laterals and ditches that serve the patrons nearby and miles away from the canal, and a wooden bridge dating to within the period of significance (though non-contributing due to a lack of direct relationship to the historic context) typical of those built by settlers to bridge the canal. The setting of the historic canal within the historic district boundaries includes a variety of sizes of parcels. A stretch of the canal in the district passes through nearly 80 acres of

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land in public ownership with native vegetation, remaining uncultivated and undeveloped, as it was when the canal was constructed. It also includes 12 large parcels of irrigated and cultivated land that have associated irrigation ponds and water rights. Five parcels are between 30 and 51 acres, three parcels between 20 and 30 acres, and five parcels between 10 and 20 acres. There are three irrigated hobby farms with sheep, goats, horse and cattle in the pastures beside the canal.

11. Form Prepared By

name/title Patricia A. Kliewer, MPA, Historic Preservation Planner date June 27, 2017
organization Kliewer Engineering and Associates telephone (541) 617-0805
street & number 60465 Sunridge Drive, Bend, OR 97702 email pkliewer@hotmail.com
city or town Bend state OR zip code 97702

Additional Documentation

Submit the following items with the completed form:

- **Regional Location Map**
- **Local Location Map**
- **Tax Lot Map**
- **Site Plan**
- **Floor Plans (As Applicable)**
- **Photo Location Map** (Include for historic districts and properties having large acreage or numerous resources. Key all photographs to this map and insert immediately after the photo log and before the list of figures)

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Photographs:

Submit clear and descriptive photographs. The size of each image must be 3000x2000 pixels, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered, and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Central Oregon Canal Historic District (Ward Road to Gosney Road Segment)
City or Vicinity: Bend
County: Deschutes **State:** OR
Photographer: Patricia A. Kliewer
Date Photographed: April 3, 2017

Description of Photograph(s) and number include description of view indicating direction of camera:

- Photo 1 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0001)
Looking west to the Ward Road Bridge on the western boundary of the historic district. Canal is 68' wide at this point and 5.' deep with a cut south side and a low berm on the north side.
- Photo 2 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0002)
Looking west toward west end of historic district, with Cascade Mountain peaks in the distance.
- Photo 3 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0003)
Looking north across irrigated land from top of tall berm along north side of canal.
- Photo 4 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0004)
Looking east with a tall berm with rip-rap on the north side in a deep, narrow portion of the canal that holds water year around.
- Photo 5 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0005)
Looking north from top of berm into shared delivery gate and irrigation pond, with PVC pipe and electric pump coming out of pond.
- Photo 6 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0006)
Property owners walk on ditch rider truck wheel tracks on grass covered north berm along canal under Bonneville Power Administration power transmission poles crossing over the canal.
- Photo 7 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0007)
Looking east from the Bear Creek Ranch Bridge, cut on the south side and berm on north side.
- Photo 8 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0008)
Heavily silted canal bed holds water year around, looking east.
- Photo 9 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0009)
Stacked rock on the bermed north side of canal near middle of the historic district.

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Photos Continued

- Photo 10 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0010)
Looking east from canal bed with a cut on the south side and tall berm on the north side.
- Photo 11 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0011)
Looking west in Burt Chute with ditch rider road on right side.
- Photo 12 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0012)
Looking west into the drop from Burt Chute into pond.
- Photo 13 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0013)
Looking east in shallow, wide canal bed with cuts on both sides in area of scrub land.
- Photo 14 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0014)
Shallow canal bed with cuts on both sides, looking east through scrub land
- Photo 15 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0015)
Looking south at a pentagon-shaped drill hole for blasting rock in the canal bed.
- Photo 16 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0016)
Looking east at lava flows in canal bed.
- Photo 17 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0017)
Looking east near Teal Road with lava flows in bed.
- Photo 18 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0018)
Uneven canal bed with cut sides through scrub land, looking west.
- Photo 19 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0019)
Carefully stacked rock on steep south side slope, looking east.
- Photo 20 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0020)
Looking east to Gosney Road Bridge at east end of historic district. Tall berms are on both sides, north side is silted. Canal is 59' wide and 5.5' deep.

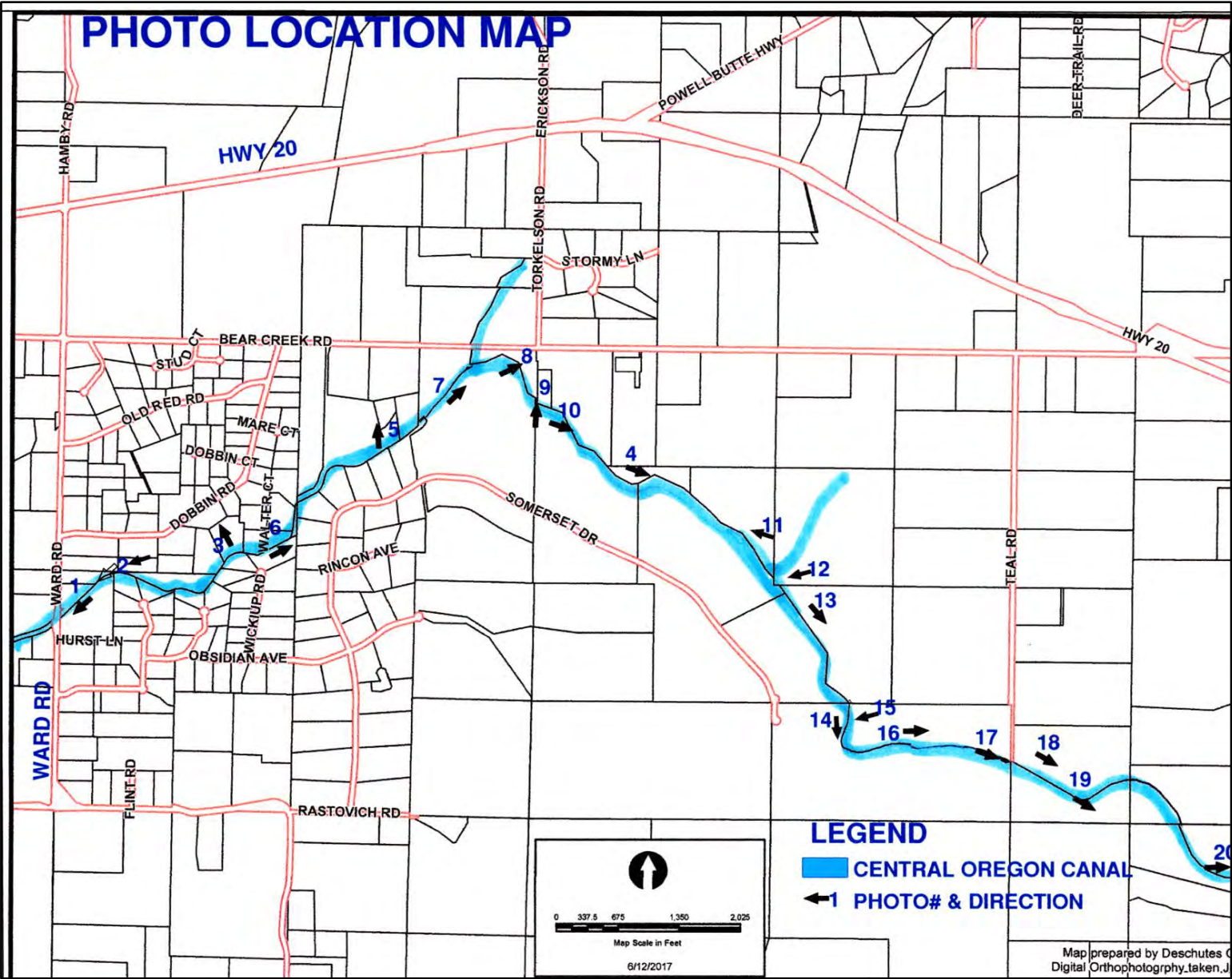
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC

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Photo Location Map



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List of Figures

(Resize, compact, and paste images of maps and historic documents in this section. Place captions, with figure numbers above each image. Orient maps so that north is at the top of the page, all document should be inserted with the top toward the top of the page.)

- Figure 1:** General Location Map.
- Figure 2:** Local Location Map.
- Figure 3:** USGS Quadrangle Map of Historic District.
- Figure 4. a-f:** Tax Lot Maps with Boundary of Historic District Indicated with Heavy Black Lines.
- Figure 5a:** Map Showing Location of Structures in the Historic District.
- Figure 5b:** Map Showing Location of Drops in Elevation in the Historic District.
- Figure 6a:** Map, 1924, by Frank Becker, Oregon State Engineer, depicting Central Oregon from the Columbia River to Crater Lake and showing rivers and canals.
- Figure 6b:** Township Map, 1924 by Frank Becker, Oregon State Engineer, depicting the Central Oregon Canal and the other canals in the vicinity of Powell Butte, Bend, Redmond, Tumalo and Terrebonne. It also shows the Crooked River and Deschutes River.
- Figure 7:** Topographic Map of Eight Irrigation Districts in Upper Deschutes River Basin: Arnold, Central Oregon, Lone Pine, North Unit, Ochoco, Swalley, Three Sisters, and Tumalo Irrigation Districts. COID Service Area Map.
- Figure 8:** Map showing the COID Service Area.
- Figure 9:** Map of Carey Act Segregation List in T18S, R12 E, Section 1.
- Figure 10:** Map of Carey Act Segregation List in T18S, R13E, Sections 5, 6, and 8.
- Figure 11:** Map of water rights in T18S, R12E, Section 1.
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- Figure 13:** Map of Irrigated Lands for Sale under Contracts with the United States and the State of Oregon in the Bend District, Deschutes Valley, Central Oregon, July 7, 1909.
- Figure 14a-c:** Original Property owners in T18S, R12E, Sec.1 and T18S, R13E, Sections 5, 6 and 8.
- Figure 15:** Map dated 1935, Metsker's Atlas of Deschutes County, T18S, R12E, showing Section 1.
- Figure 16:** Map dated 1944, Metsker's Atlas of Deschutes County, T18S, R12E, showing Section 1.
- Figure 17:** Map dated 1972, Metsker's Atlas of Deschutes County, T18S, R12E, showing Section 1.
- Figure 18:** Map dated 1935, Metsker's Atlas of Deschutes County, T18S, R13E, showing Sections 5, 6, 8.
- Figure 19:** Map dated 1944, Metsker's Atlas of Deschutes County, T18S, R13E, showing Sections 5, 6, 8.
- Figure 20:** Map dated 1972, Metsker's Atlas of Deschutes County, T18S, R13E, showing Sections 5, 6, 8.
- Figure 21:** 300-foot interval study of COCHD, April 3, 2017
- Figure 22:** Google earth Photo of community of Alfalfa
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- Figure 24:** Concept Map drawn for Alexander Drake in 1900 of possible irrigation systems and a railroad on the east side of the Deschutes River between Lava Butte on the south and Trout Creek on the north.
- Figure 25a:** 1905 Construction Drawing, existing profile of terrain, estimate of rock to be removed, and proposed water line at mile post 7 and showing plans for drop at Bear Creek Bridge.
- Figure 25b:** 1905 Construction Drawing, existing profile of terrain, estimate of rock to be removed, and proposed water line at mile post 7.5 and showing plans for Lateral B.
- Figure 25c:** 1905 Construction Drawing and estimate of rock to be removed at mile post 8 and showing plans for and diversion for Lateral C.
- Figure 25d:** 1905 Construction Drawing and estimate of rock to be removed at mile post 8-9, showing drops and profile of canal.
- Figure 25e:** 1905 Construction Drawing and estimate of rock to be removed around Flume No. 2, just west of mile post 10.
- Figure 26a:** 1943 Aerial Photo labeled 11-L11-200, US Army.
- Figure 26b:** 1943 Aerial Photo labeled 12-L11-200, US Army.
- Figure 27a:** 1951 Aerial Photo by U.S. Department of Agriculture, Production and Administration.
- Figure 27b:** 1951 Aerial Photo by U.S. Department of Agriculture, Production and Administration.,
- Figure 28.** 1914 Partial Blueprint with Chalk Drawing of the COC showing Lateral A and Mile Posts 7, 8 and 9 within the Historic District.
- Figure 29:** Ca. 1909 Drawing of Canal Capacities.
- Figure 30.** May 10. 1913 Partial Blueprint with Colored Ink of the COC and Laterals A, B and C.
- Figure 31.** Ca. 1910 Cross Section Drawings for the COC at Mile Post 10, at the eastern portion of the historic district. Drawings attributed to C. M. Redfield.

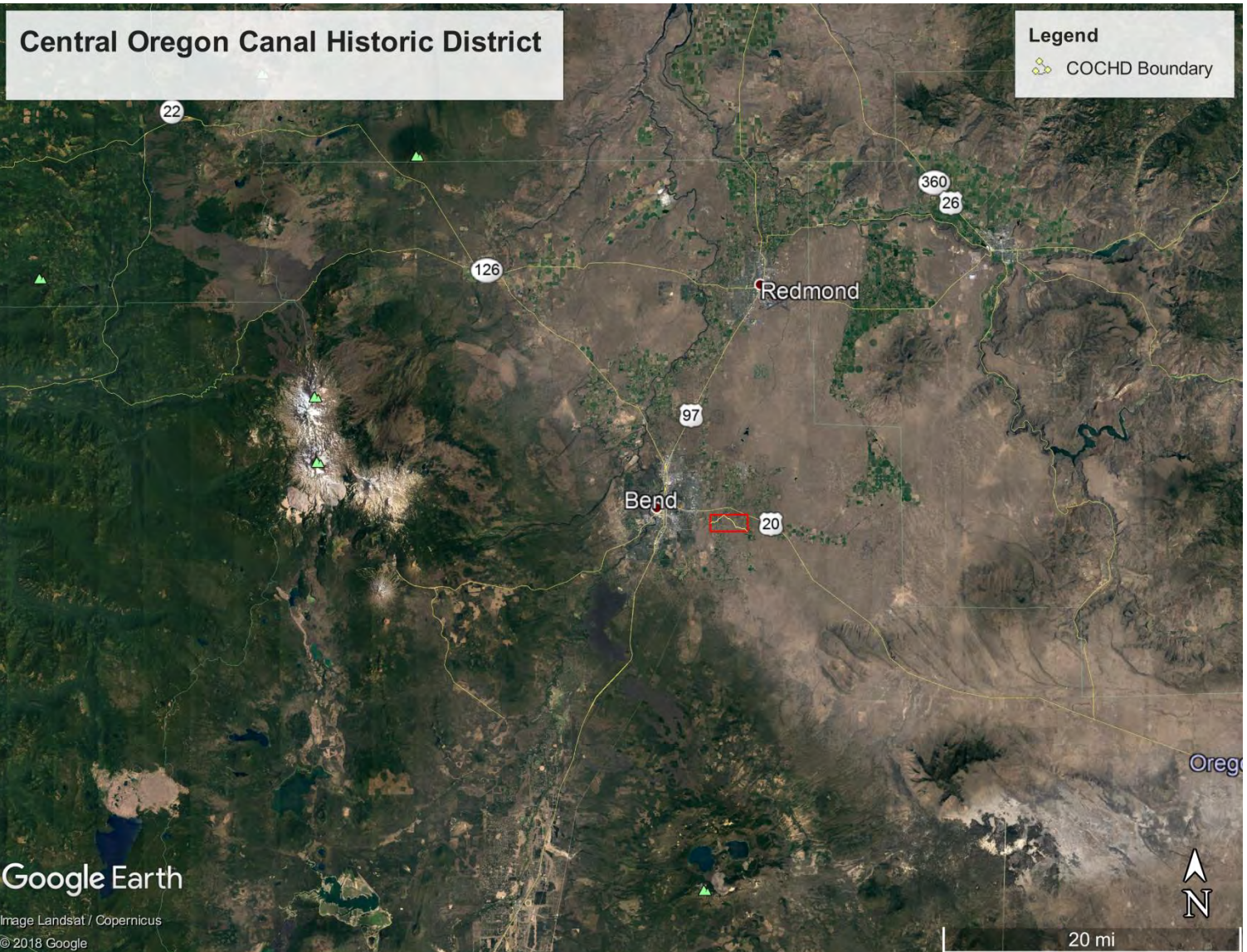
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FIGURE 1: General Location Map. Red box indicates the location of the COCHD, yellow path within box indicates path of COC.



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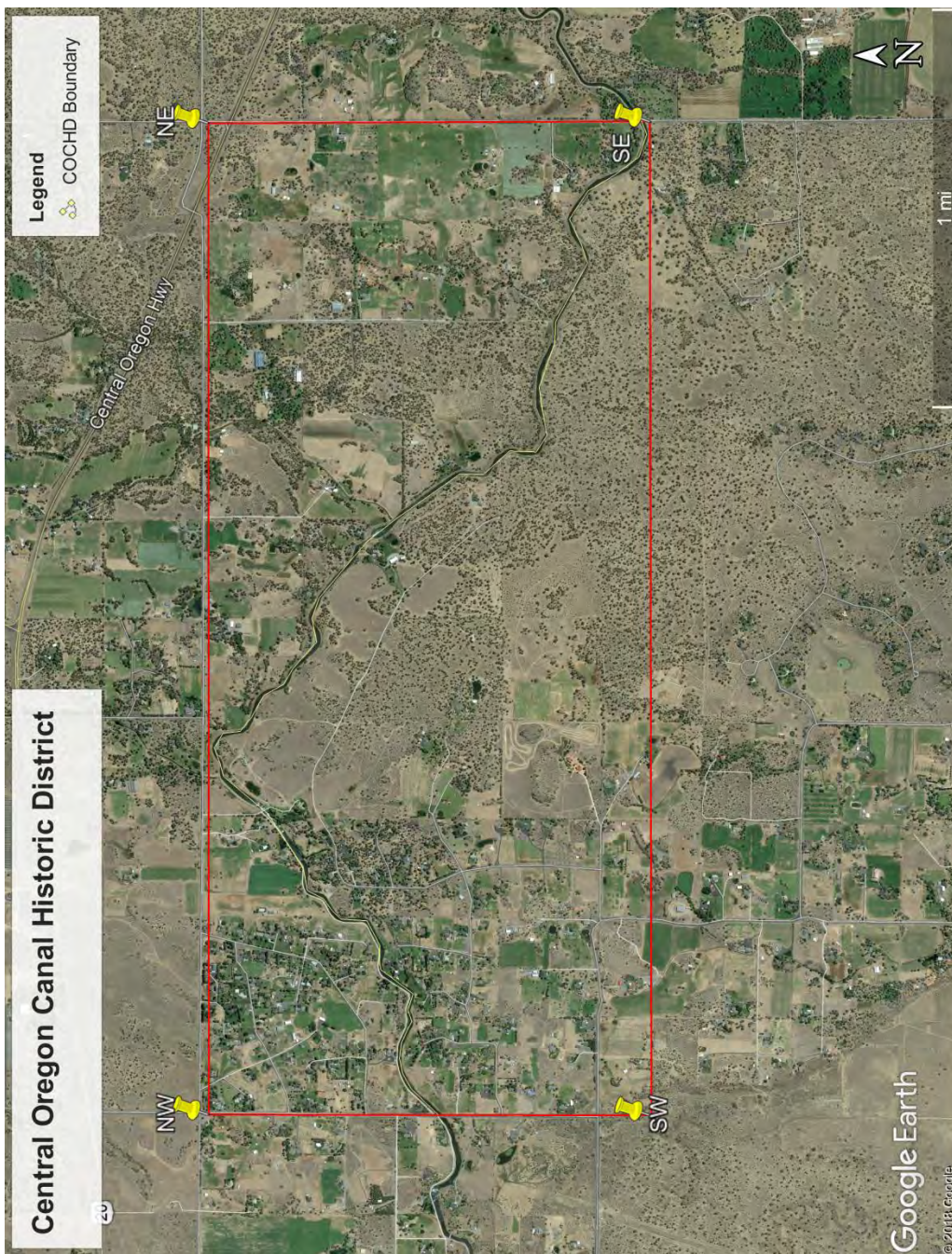
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FIGURE 2: Local Location Map, 2016 Aerial photograph and tax lots. Coordinates are as follows:
NW: Lat. 44.050970; Long. -121.243548
NE: Lat. 44.050970; Long. -121.193444
SE: Lat. 44.034928; Long. -121.193444
SW: Lat. 44.034928; Long. -121.243548



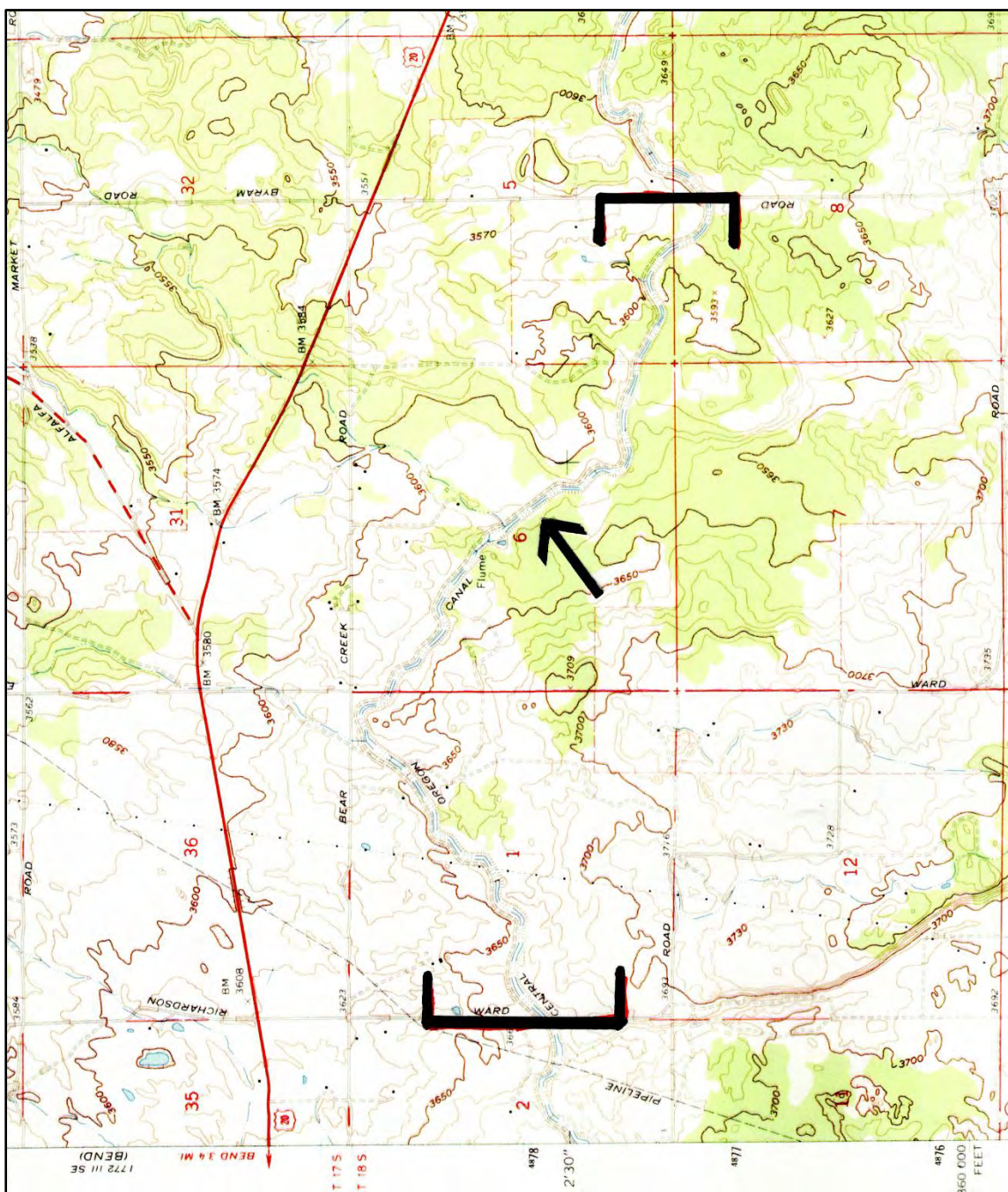
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FIGURE 3: Portion of the U.S. Geological Survey Quadrangle Map, BEND AIRPORT, OREGON 1962. North is to the top of the map.



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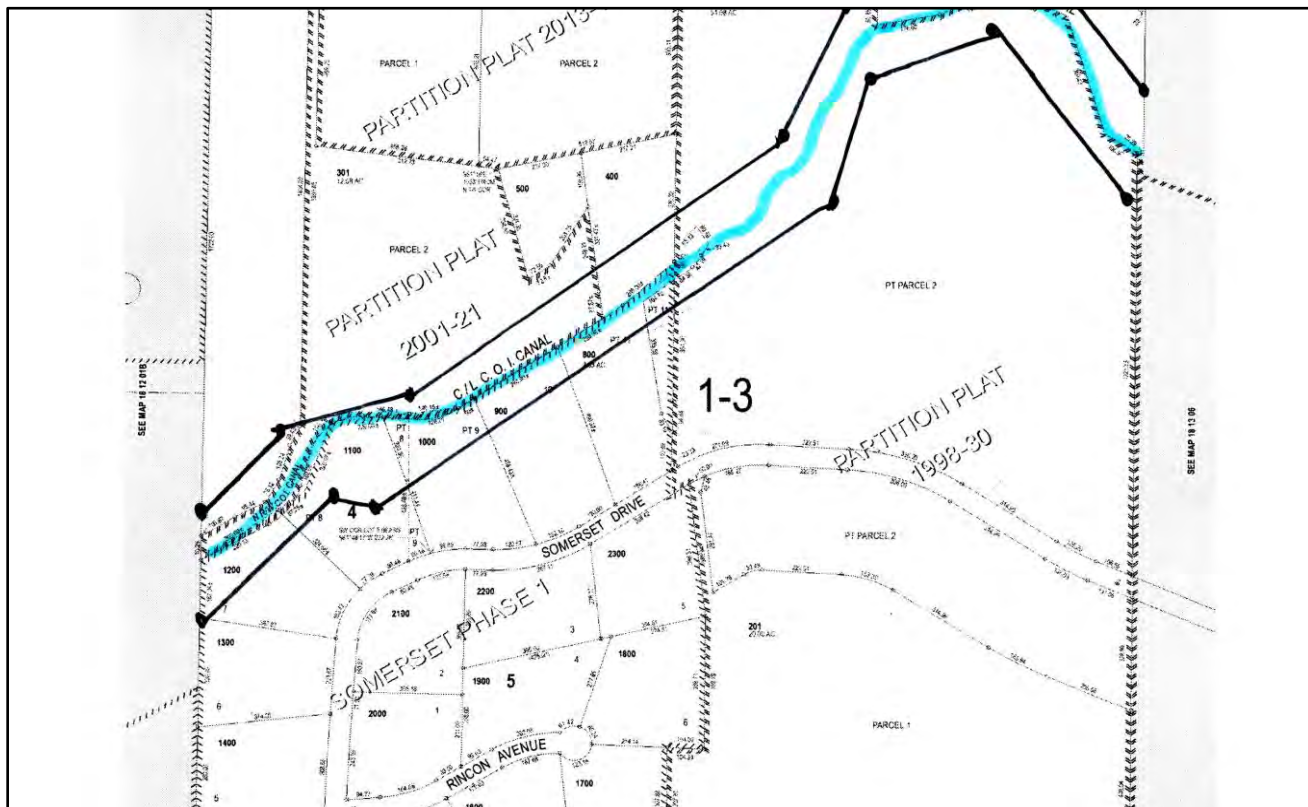
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FIGURE 4a: Tax Lot Map 181201A0, Deschutes County Assessor, 2017. The historic district boundary is drawn for representational purposes. Not to scale.



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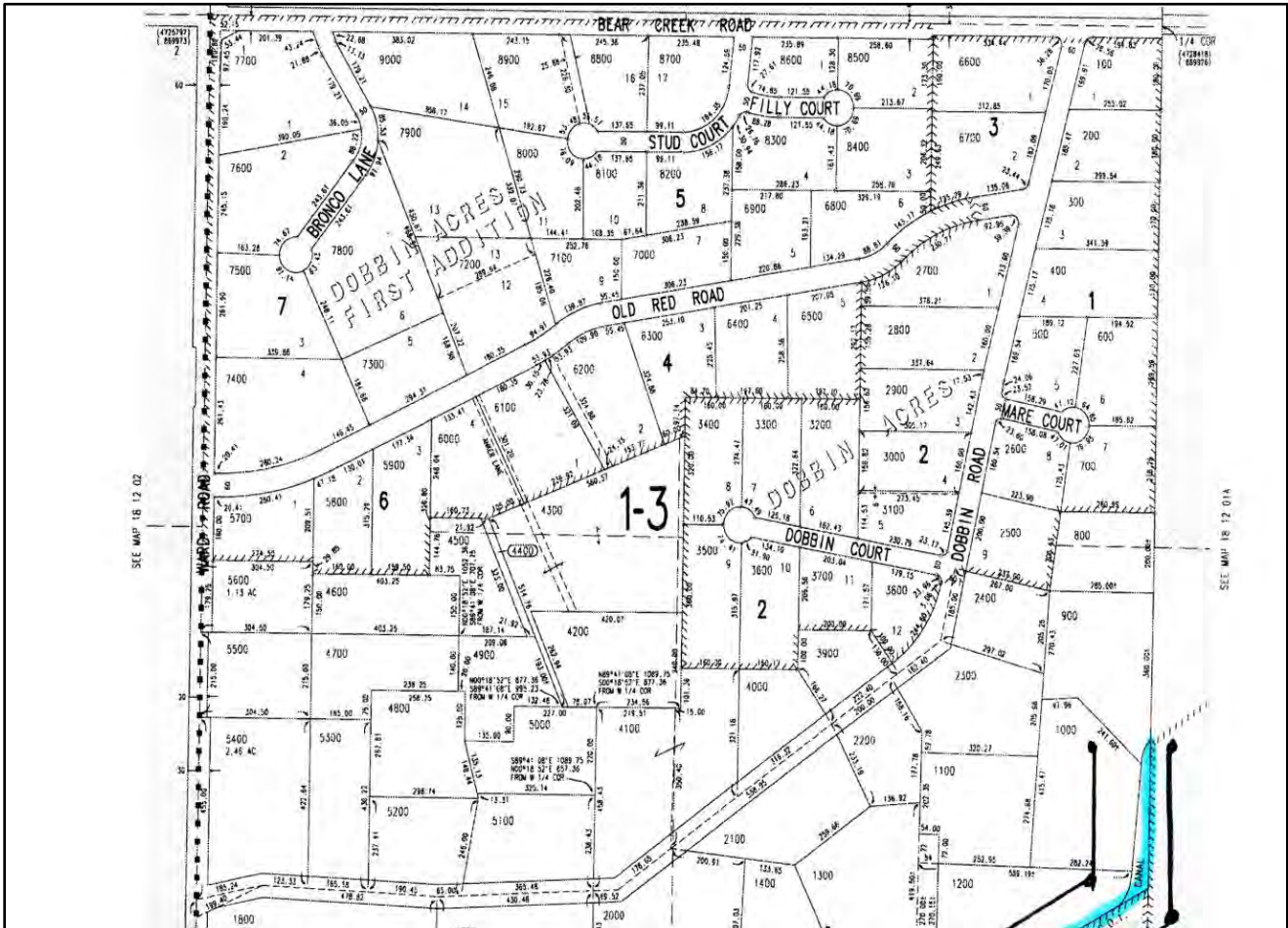
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FIGURE 4b: Tax Lot Map 181201B, Deschutes County Assessor, 2017. The historic district boundary is drawn for representational purposes. Not to scale.



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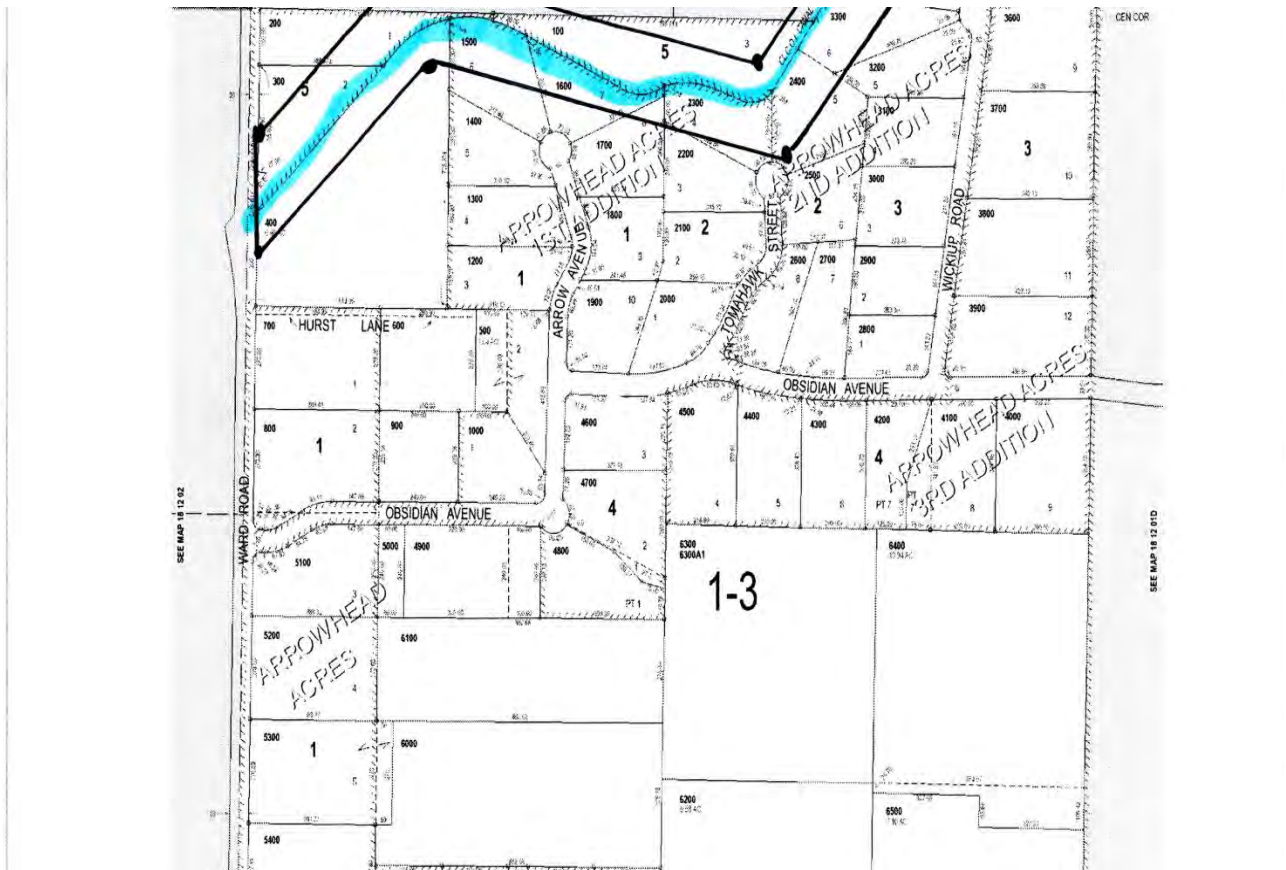
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FIGURE 4c: Tax Lot Map 181201C0, Deschutes County Assessor, 2017. The historic district boundary is drawn for representational purposes. Not to scale.



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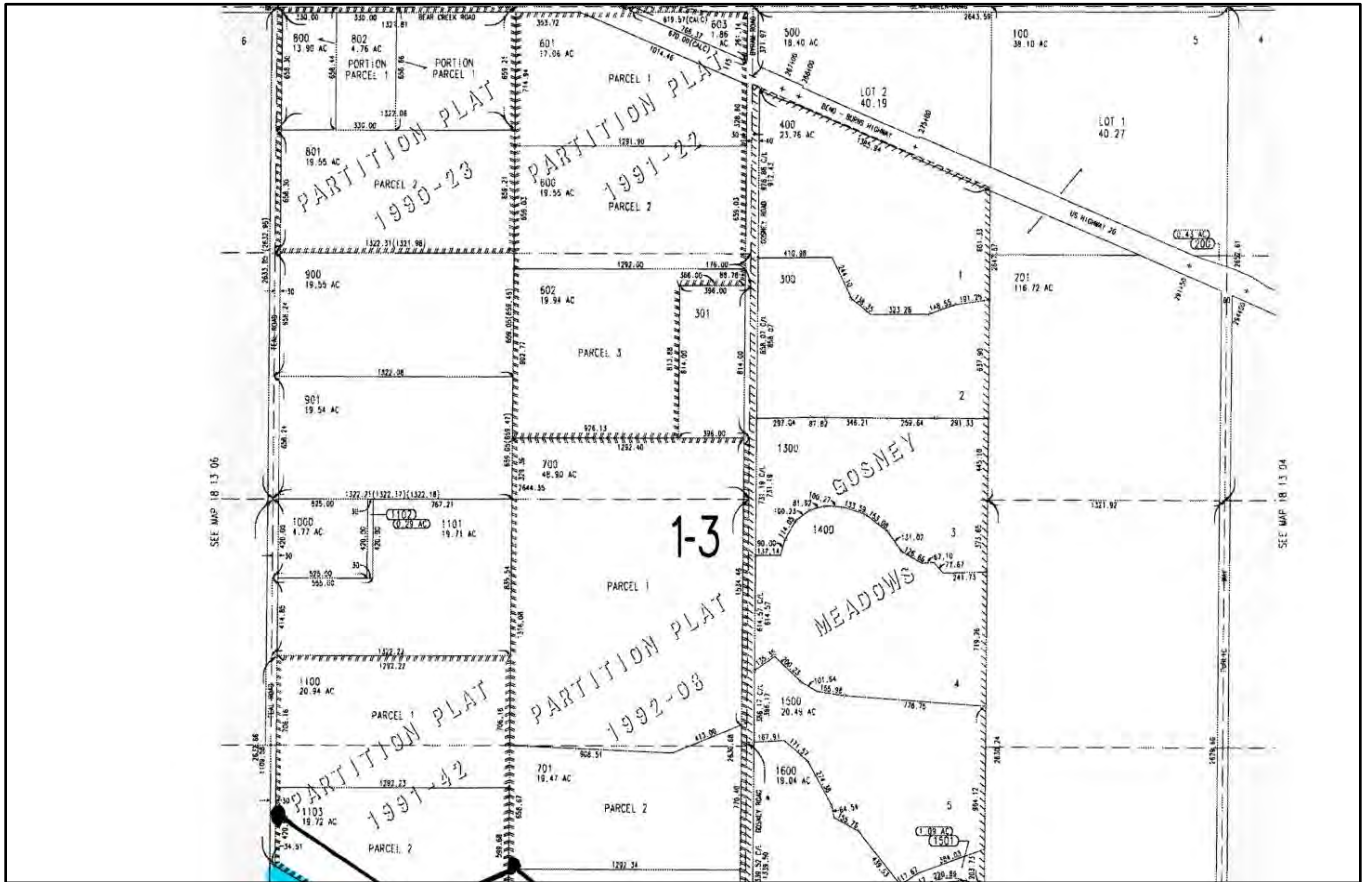
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FIGURE 4d: Tax Lot Map 181205, Deschutes County Assessor, 2017. The historic district boundary is drawn for representational purposes. Not to scale.



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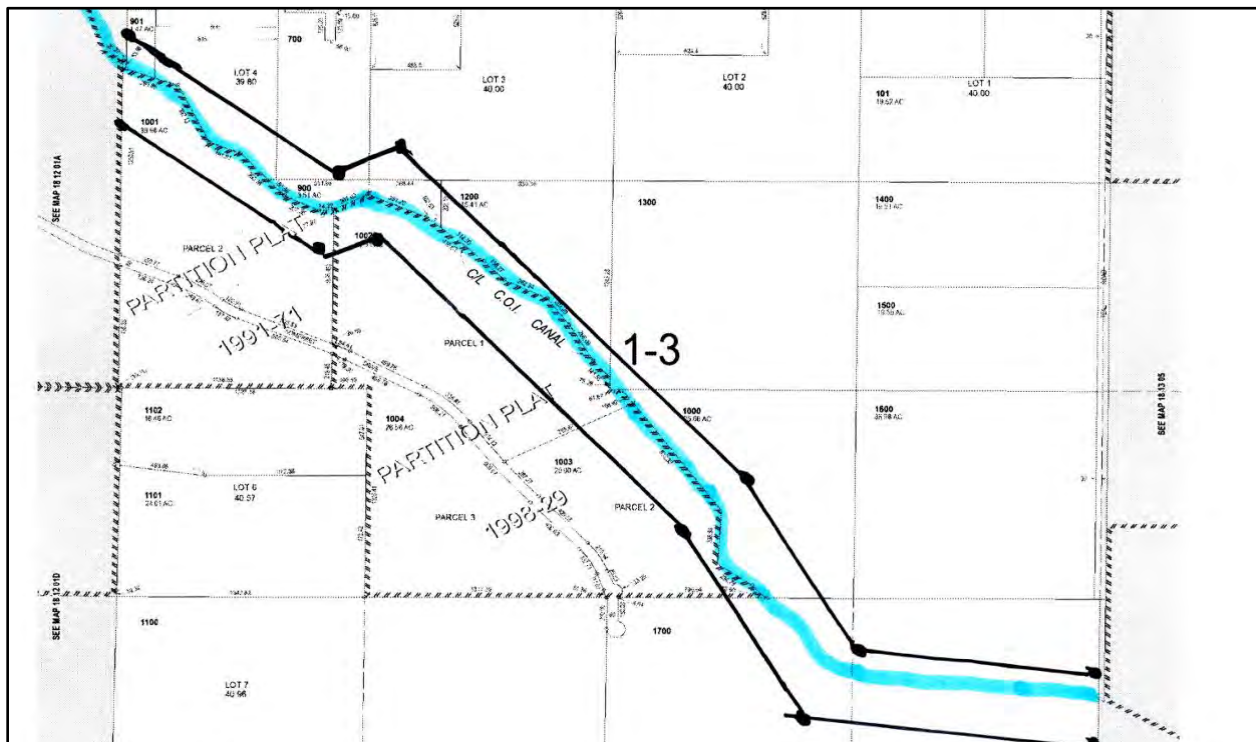
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FIGURE 4e: Tax Lot Map 181206, Deschutes County Assessor, 2017. The historic district boundary is drawn for representational purposes. Not to scale.



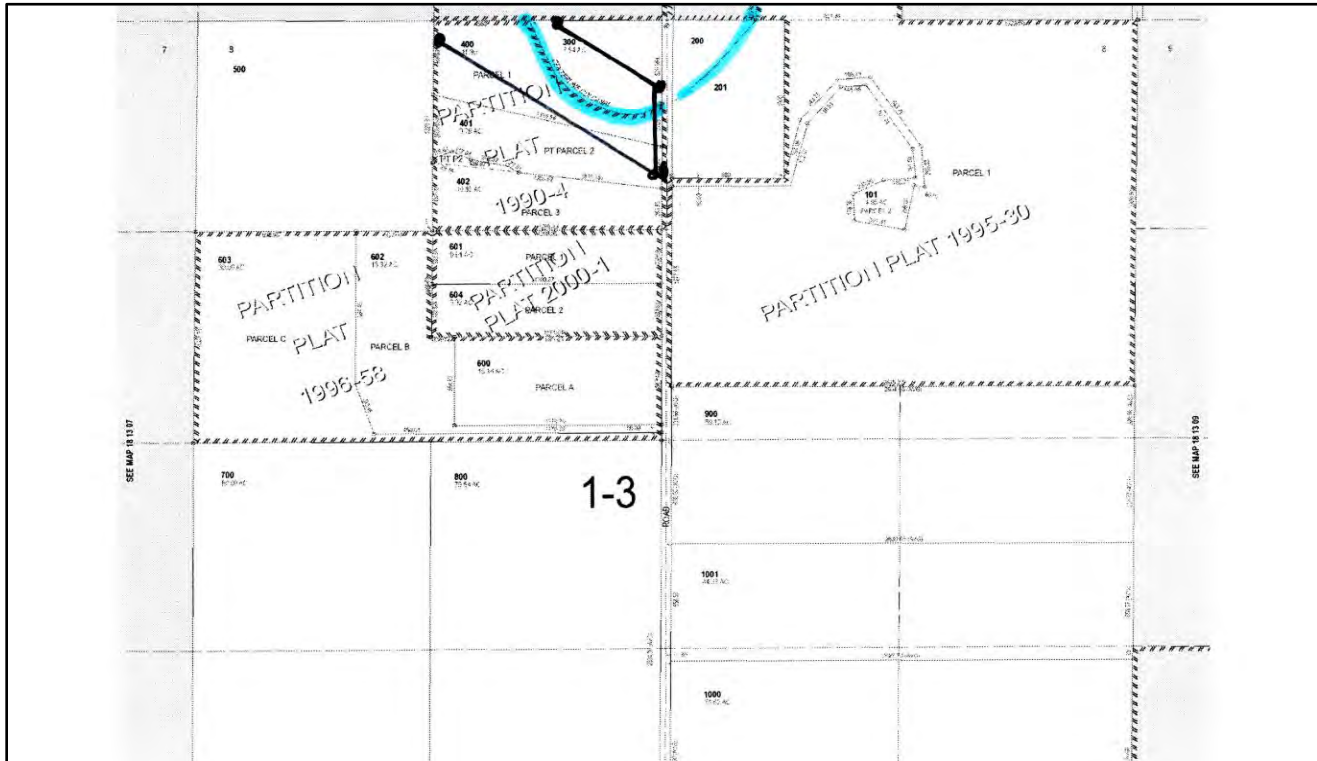
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FIGURE 4f: Tax Lot Map 18120800, Deschutes County Assessor, 2017. The historic district boundary is drawn for representational purposes. Not to scale.



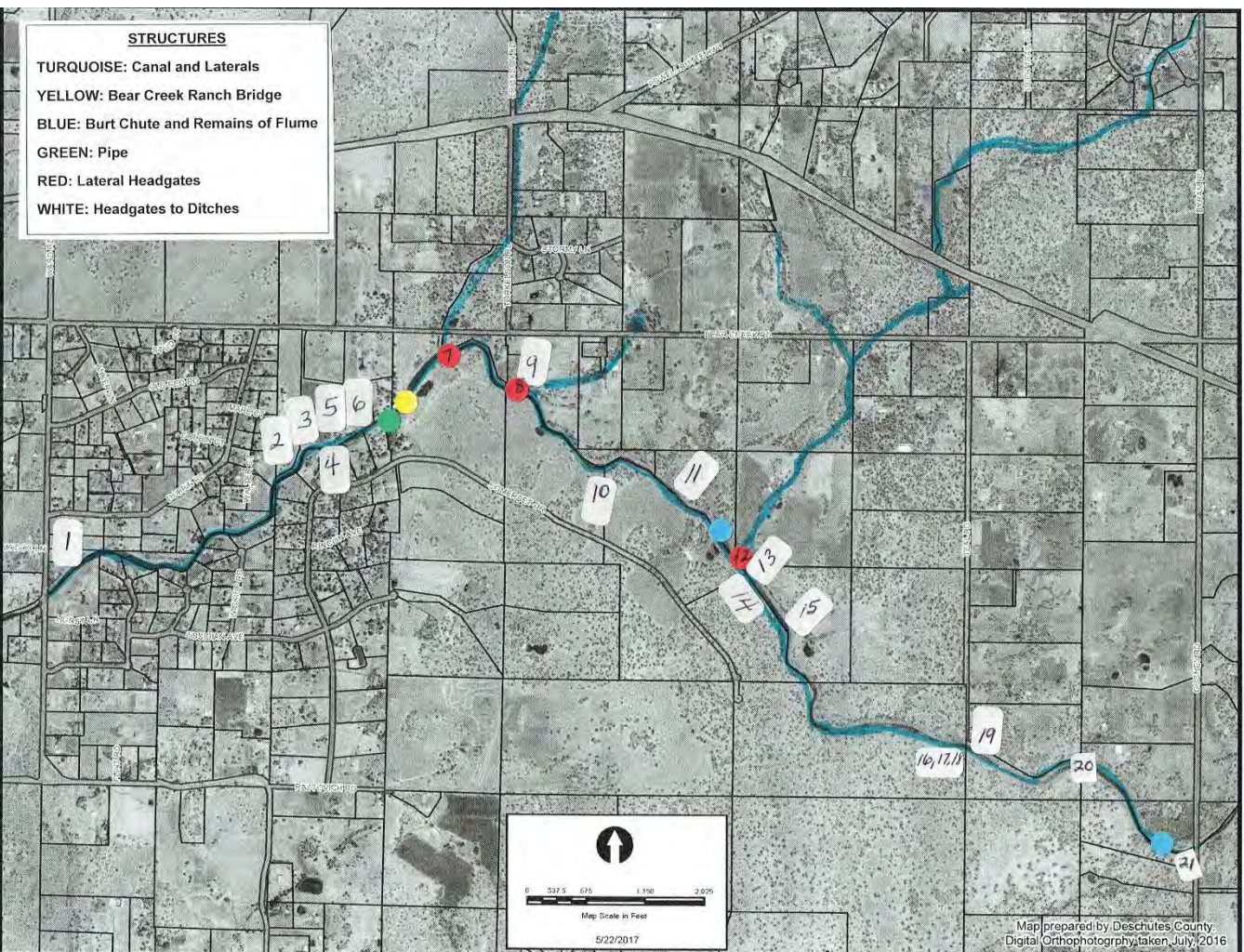
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FIGURE 5a: Map Showing Locations of Structures in Historic District.



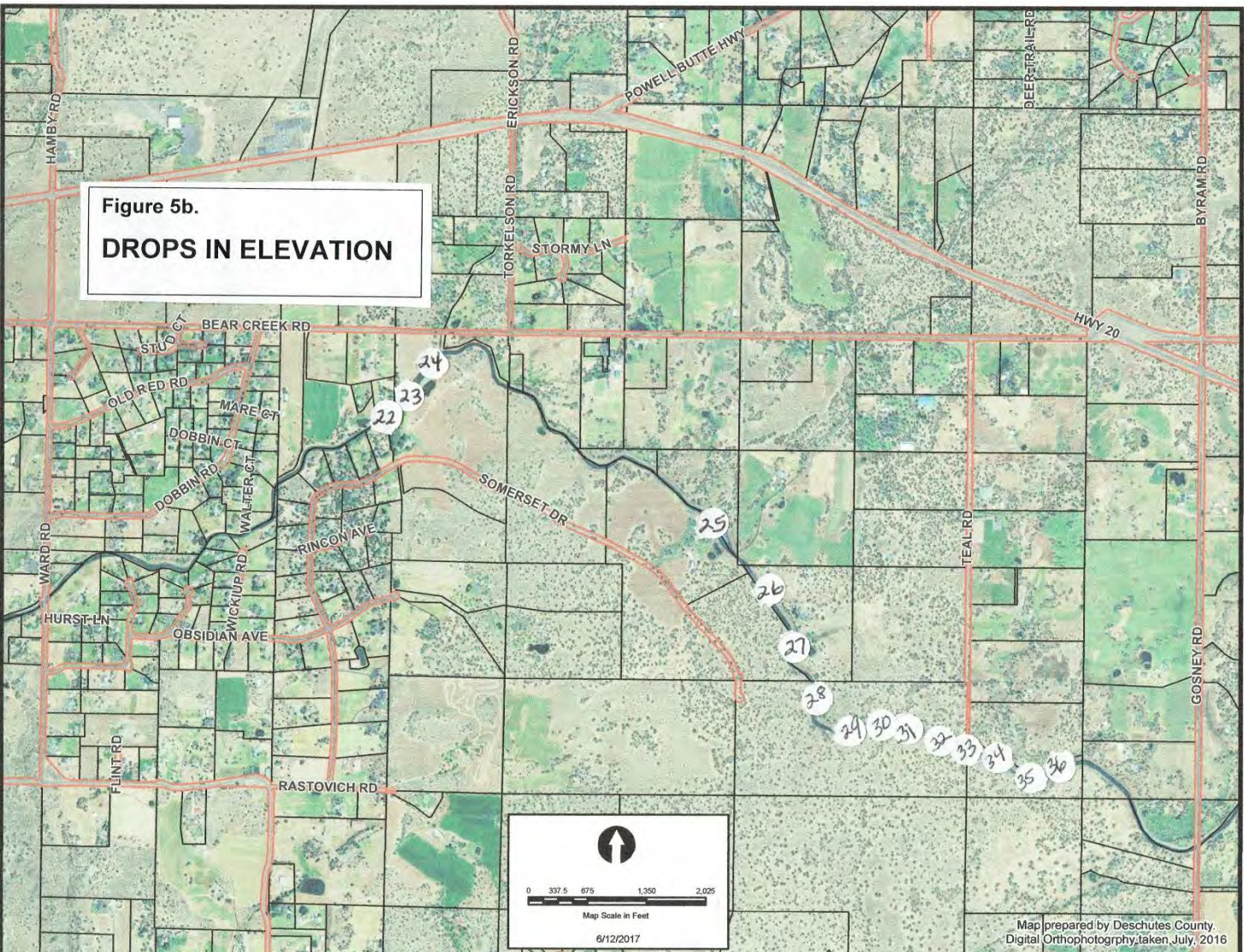
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FIGURE 5b: Map Showing Location of Drops in Elevation in the Historic District (numbers correspond to those in Table 1).



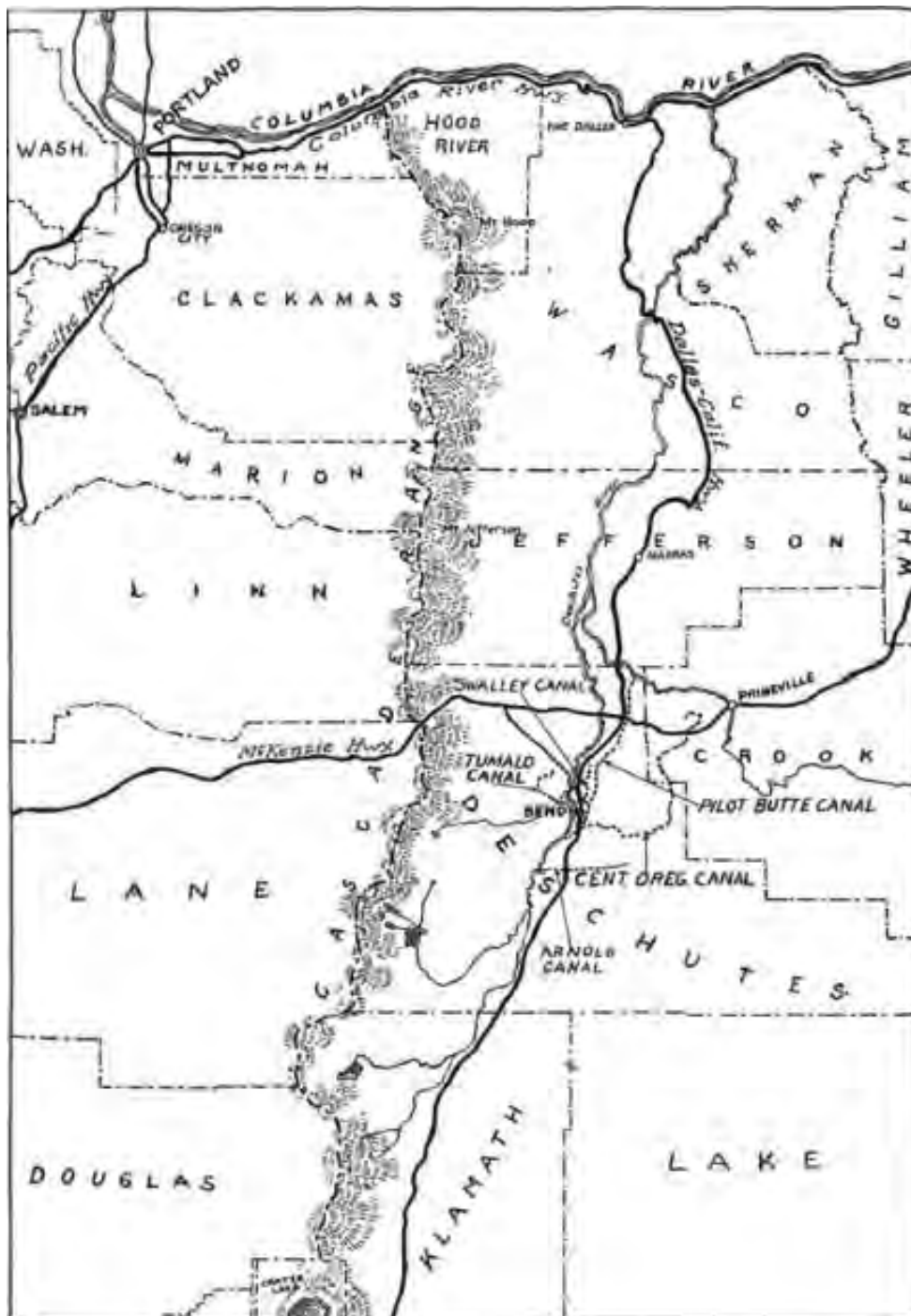
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FIGURE 6a: 1924 Map by Frank Becker, Oregon State Engineer, depicting Central Oregon from the Columbia River to Crater Lake and showing rivers and the PBC and others in the area.



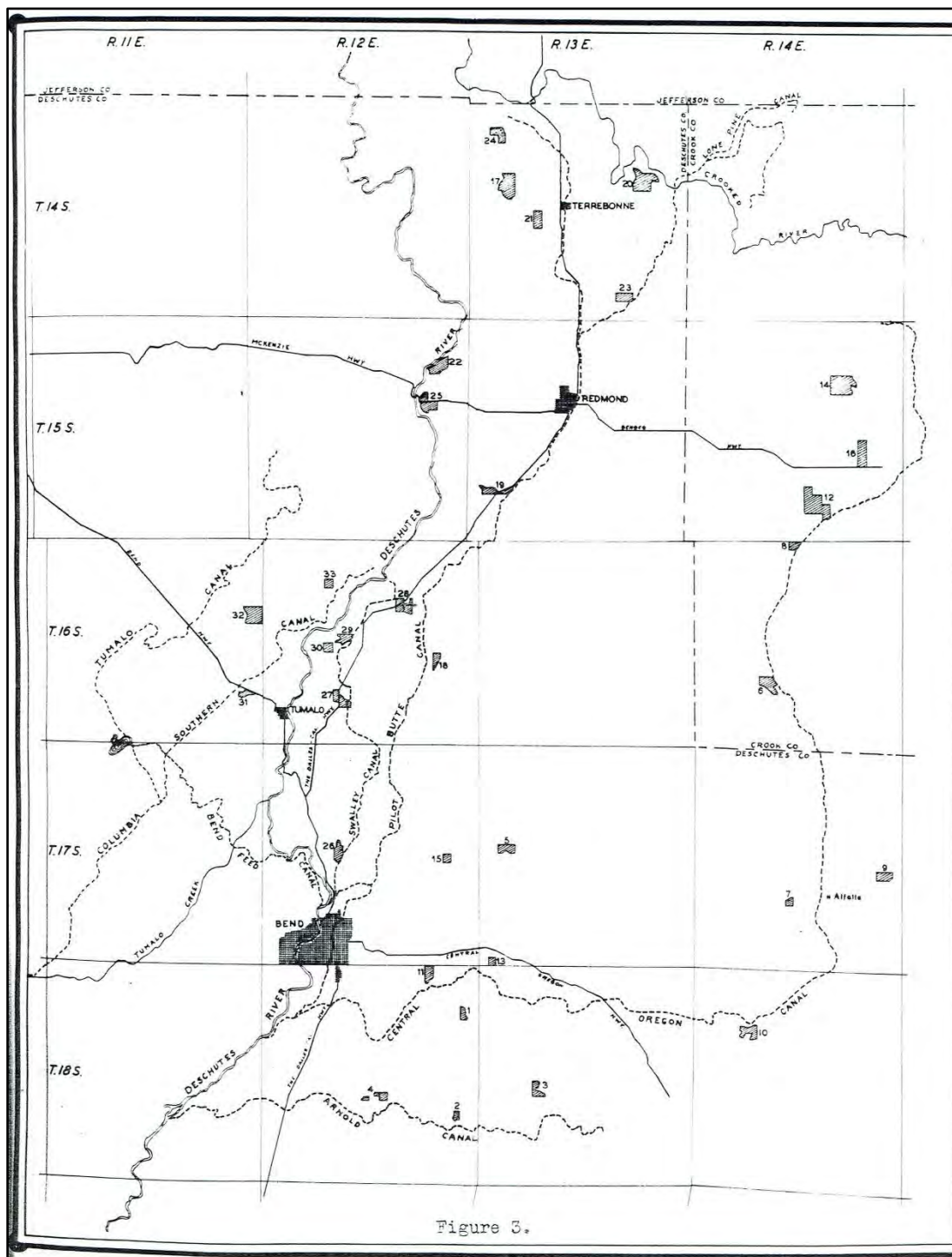
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FIGURE 6b: Township Map, 1924, by Frank Becker, Oregon State Engineer, depicting the COC and the other canals in the vicinity of Powell Butte, Bend, Redmond, Tumalo and Terrebonne. It also shows the Crooked River and Deschutes River.



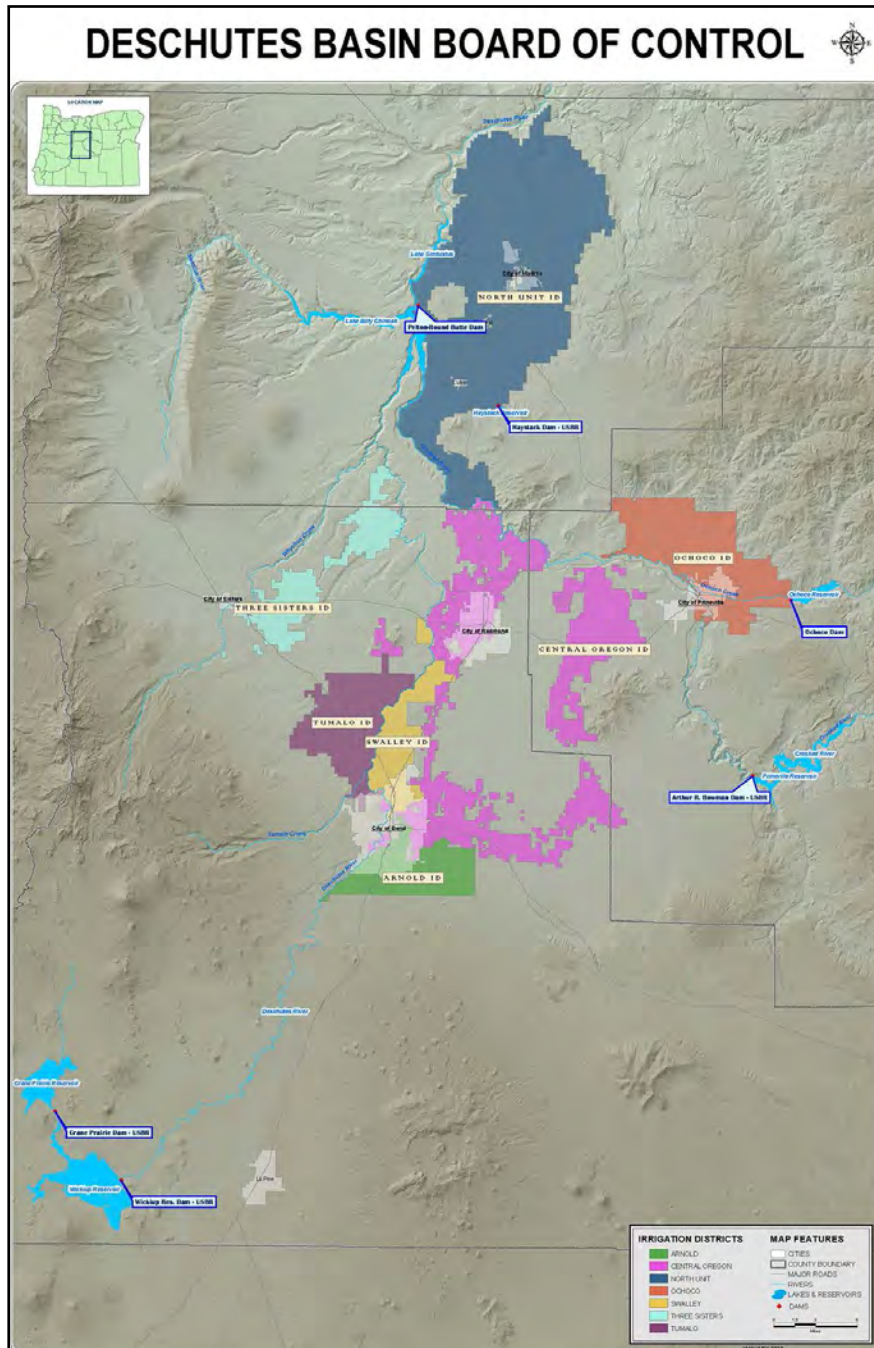
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FIGURE 7: Topographic Map of Eight Irrigation Districts in Upper Deschutes River Basin: Arnold, Central Oregon, Lone Pine, North Unit, Ochoco, Swalley, Three Sisters, and Tumalo Irrigation Districts.



Source of Topographic Map: Deschutes Basin Board of Control (DBBC), 2010.

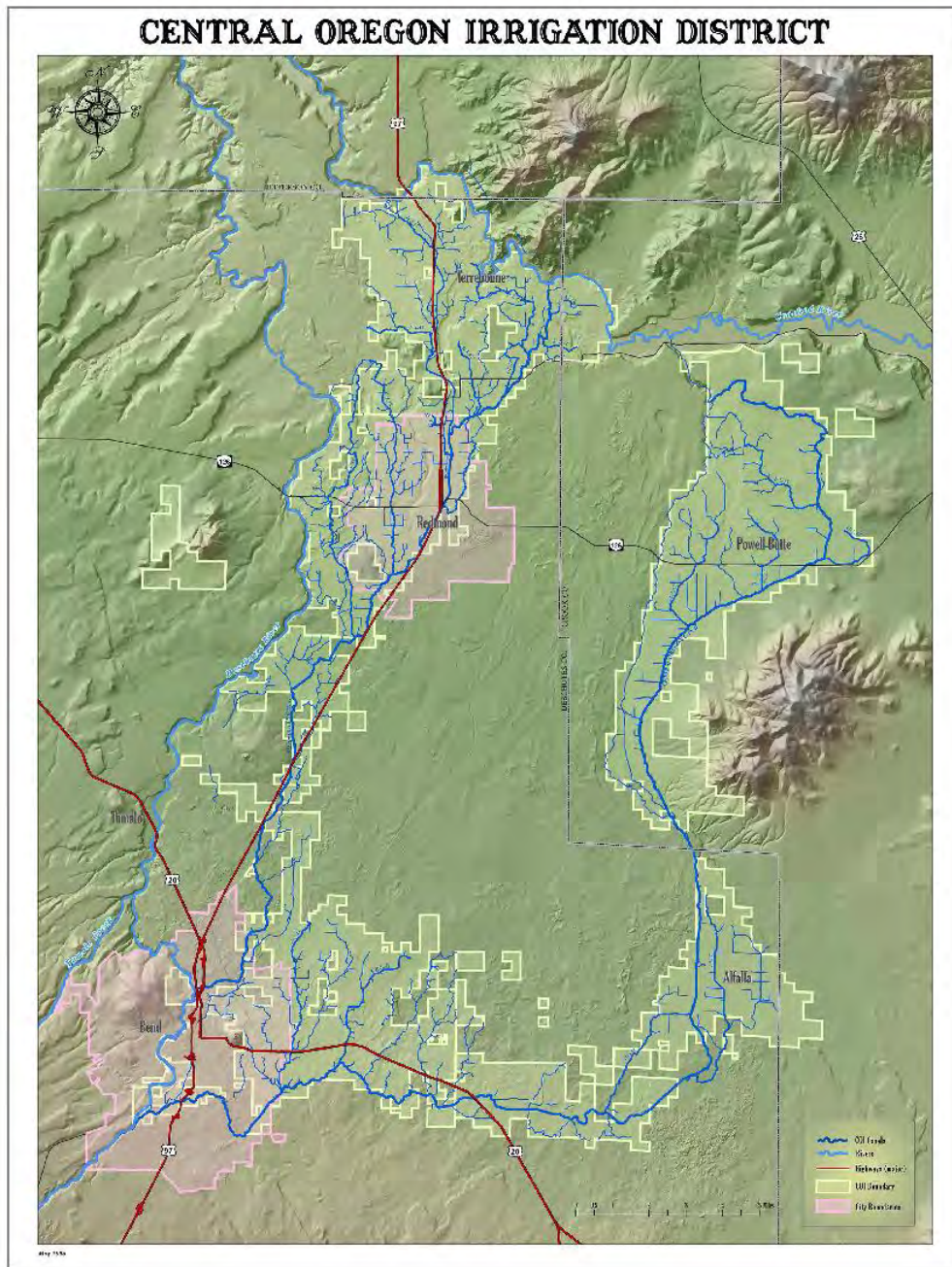
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FIGURE 8: COID Service Area Map



Source: COID

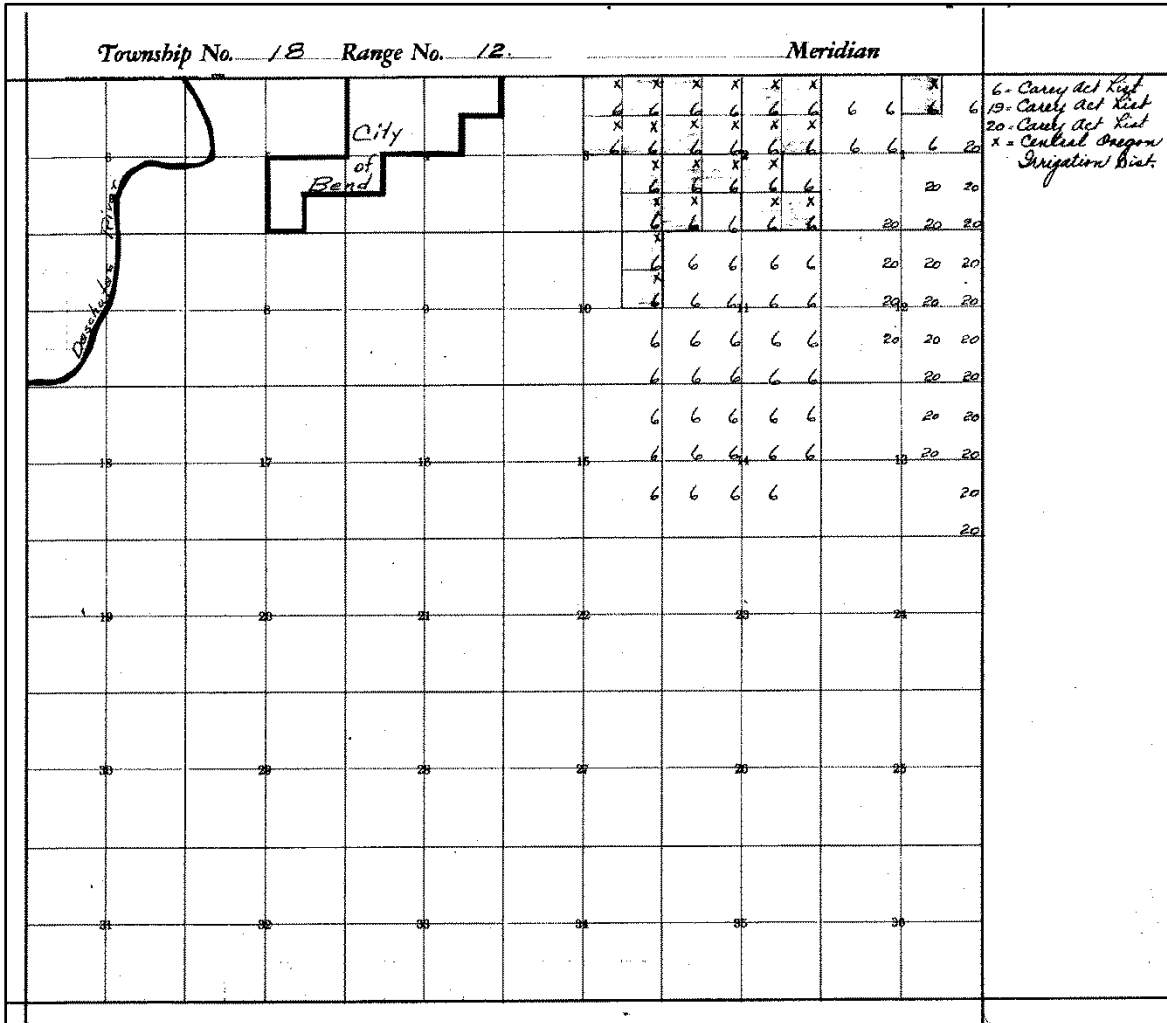
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FIGURE 9: Deschutes County Clerk's Map of T18S, R 12E, showing properties included in Carey Act Segregation List #6 and List #20. "X" indicates COID.



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FIGURE 10: Deschutes County Clerk's Map of T18S, R 13E, showing properties included in Carey Act Segregation List #6. "X" indicates COID.

| | Township No. 18 | | | | | | | | | | | | | | | | Range No. 13 | | | | | | | | | | | | | | | | Meridian | | | | | | | | | | | | | | | |
|---|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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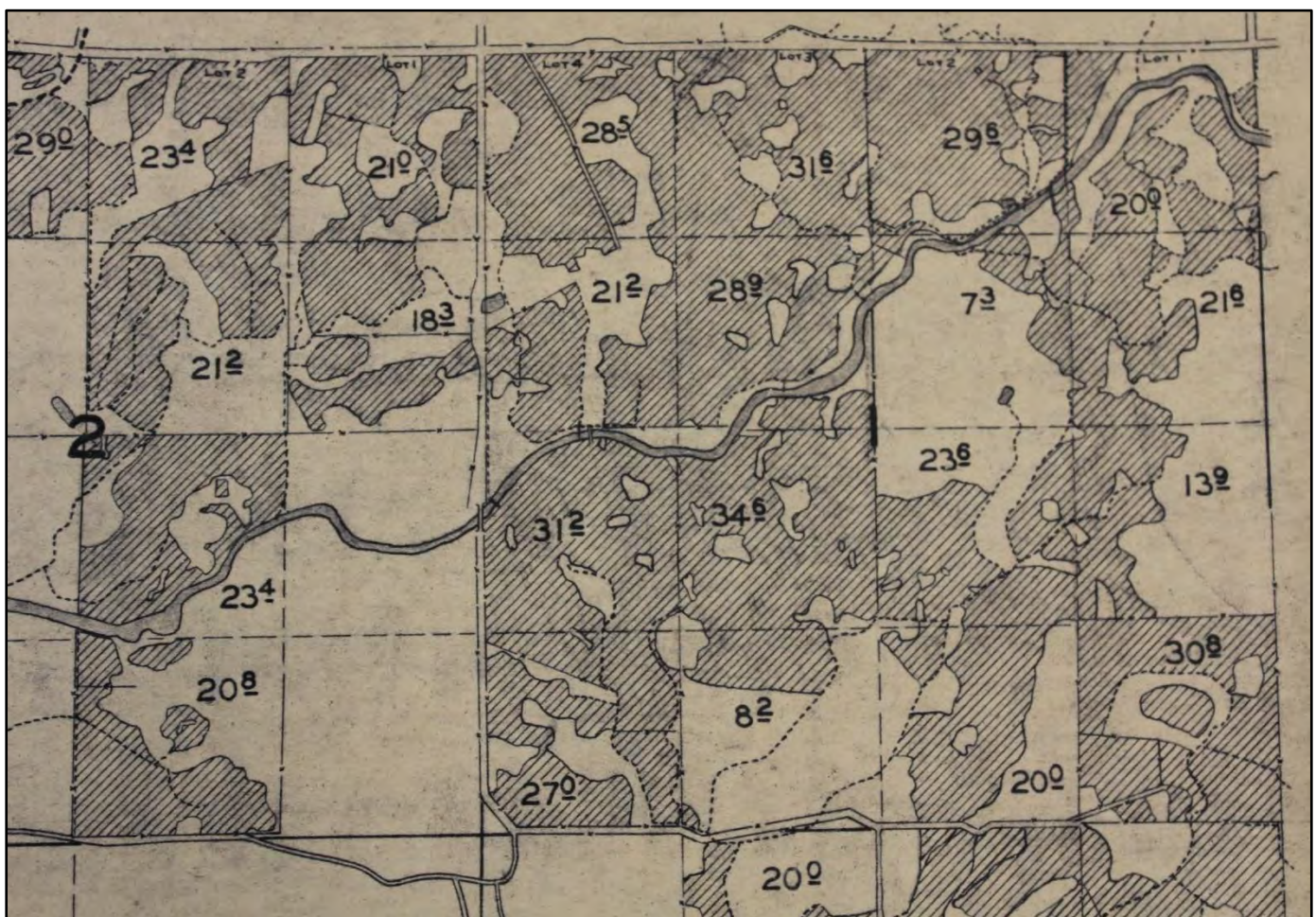
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FIGURE 11: A portion of the "Adjudication Survey of Lands Allowed an Inchoate Water Right", Feb 10, 1928. Township 18 S, R 12 E, Section 1 and the east half of Section 2. Bear Creek Road is at the northern edge and Ward Road is along the section line between Sections 1 and 2, with a bridge crossing the COC. The road heading north at the upper right edge is Torkelson Road. The numbers indicate the water right acreage in each quarter section. Ditches and laterals are indicated with dotted lines.



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FIGURE 12: A portion of the "Adjudication Survey of Lands Allowed an Inchoate Water Right", Feb 10, 1928 for Township 18 S, R 13 E, Sections 5, 6, 7 and 8. Gosney Road runs north-south through the middle of Section 5 is, with a bridge crossing the COC. The numbers indicate the water right acreage in each quarter section. Ditches and laterals are indicated with dotted lines. Burt Chute is in the center of Section 6.



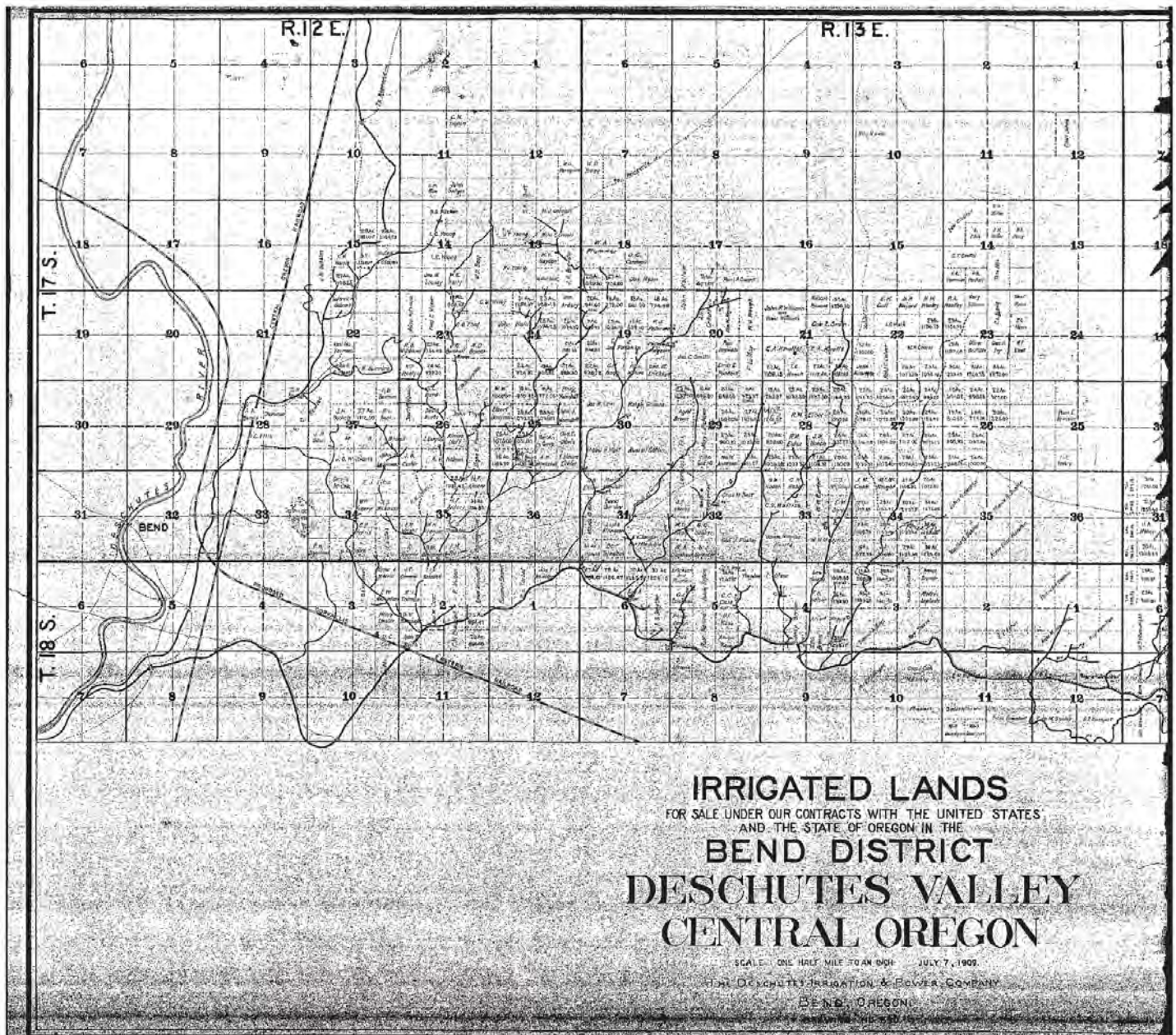
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FIGURE 13: Map of Irrigated Lands for Sale under Contracts with the United States and the State of Oregon in the Bend District, Deschutes Valley, Central Oregon, July 7, 1909.



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FIGURE 14a: Original Property Owners in Township 18 South, Range 12 East, Section 1 and Township 18 South, Range 13 East, Section 6. Includes Dates of Purchase and Parcel Size⁴¹¹ Blue line indicates location of the COC.

| Township 18 South, Range 12 East, Section 1 | | | Township 18 South, Range 13 East, Section 6 | | | |
|---|--|--|--|--|--|--|
| Oregon to George and John Bradetich 160 Acres 1922-1951 | COID to Dragan Mirich 40 Acres 1928- | USA to Mike Dragosavac 40 Acres 1921 | COID to W. F. McNaught 40 Acres 1917 | Oregon to Esther Elizabeth Dixon 40 Acres 1923 | Oregon to Philip C. Burt 40 Acres 1934 | USA 1937 40 Acres |
| USA to Lilla I. Ford 5/28/1918 Sold to 3 other owners John Bradetich 1927-1948 | USA to Dragan Mirich 40 A 1951 | USA to Dragan Wuyo Mirich 120 Acres 1923 | USA to Philip C. Burt 120 Acres 1921 | USA to Dragan Mirich 160 Acres 1951 | Oregon to Felix G. Allen 40 Acres 1909 | Oregon to J. S. Smythe 80 Acres 1910 |
| 120 Acres | USA to Dragan Mirich 80 Acres 1954 | USA to Mike Dragosavac 40 Acres 1921 | | | USA 80 Acres 1937 | |

⁴¹¹ Deschutes County Clerk's records.

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FIGURE 14b: Original Property Owners in Township 18, Range 13, Section 5. Includes Dates of Purchase and Parcel Size⁴¹² Blue line indicates location of the COC.

Township 18, Range 13, Section 5

| | | | |
|--|---|---|--|
| Oregon to William P. Erickson and John Pinoniemi 40 Acres 1914 | Oregon to John O'Donnell | Oregon to Theodore E. Olson 40 Acres 1913 | Oregon to Theodore E. Olson 40 Acres 1918 |
| Oregon to Oscar J. Erickson 40 Acres 1917 | 80 Acres 1910 | Oregon to Ivan R. Knotts 40 Acres 1910 | State Reclamation Commission to USA 120 Acres 1937 |
| Oregon to Esther Cockerhan 40 Acres 1913 | Oregon to Dora McNaught 80 Acres 1911 | Oregon to R. A. Puett 80 Acres 1922 | |
| Oregon to Charles Durand 40 Acres 1913 | | | |

⁴¹² ibid

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FIGURE 14c: Original Property Owners in Township 18, Range 13, Section 8. Includes Dates of Purchase and Parcel Size. Blue Line Indicates Location of the COC.⁴¹³

| Township 18, Range 13, Section 8 | | |
|---|----------------------------------|---|
| Oregon to Norman Wygand 40 Acres 1910 | Oregon to US 40 Acres 1937 | State to Quinton W. Hungate 160 Acres 1920 |
| Oregon to Ben Alsup 80 Acres 1922 | | |
| Oregon to Ben Alsup 40 Acres 1922 | Oregon to US 80 Acres 1937 | Oregon to Ada Hanson Stowell 160 Acres 1924 |
| Oregon to US 40 Acres 1937 | | |

⁴¹³ Deschutes County Clerk's Deeds.

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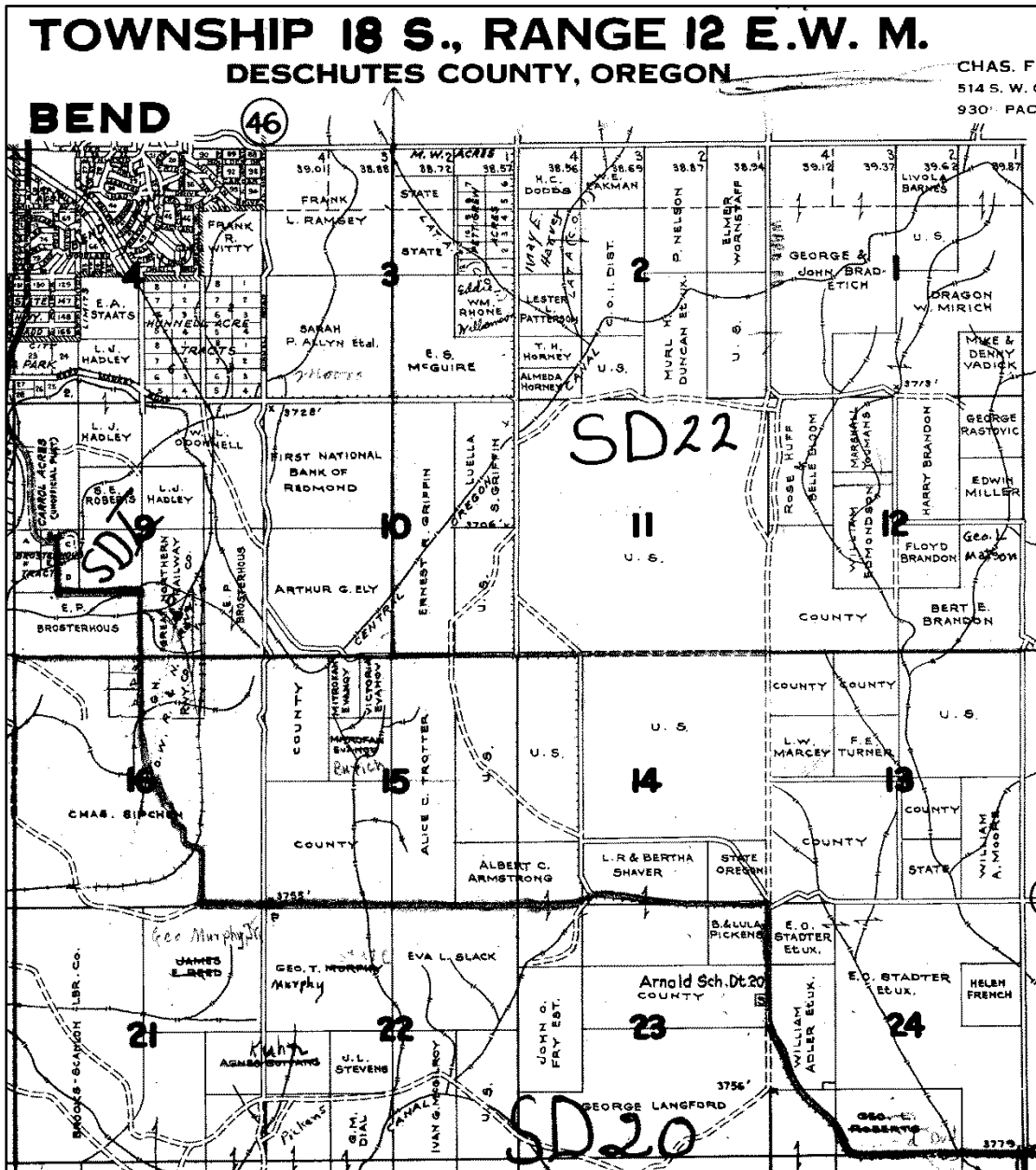
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FIGURE 15: Map dated 1935, Metsker's Atlas of Deschutes County, 16 square miles including T 18 S, R 12 E Section 1, indicating property ownership.



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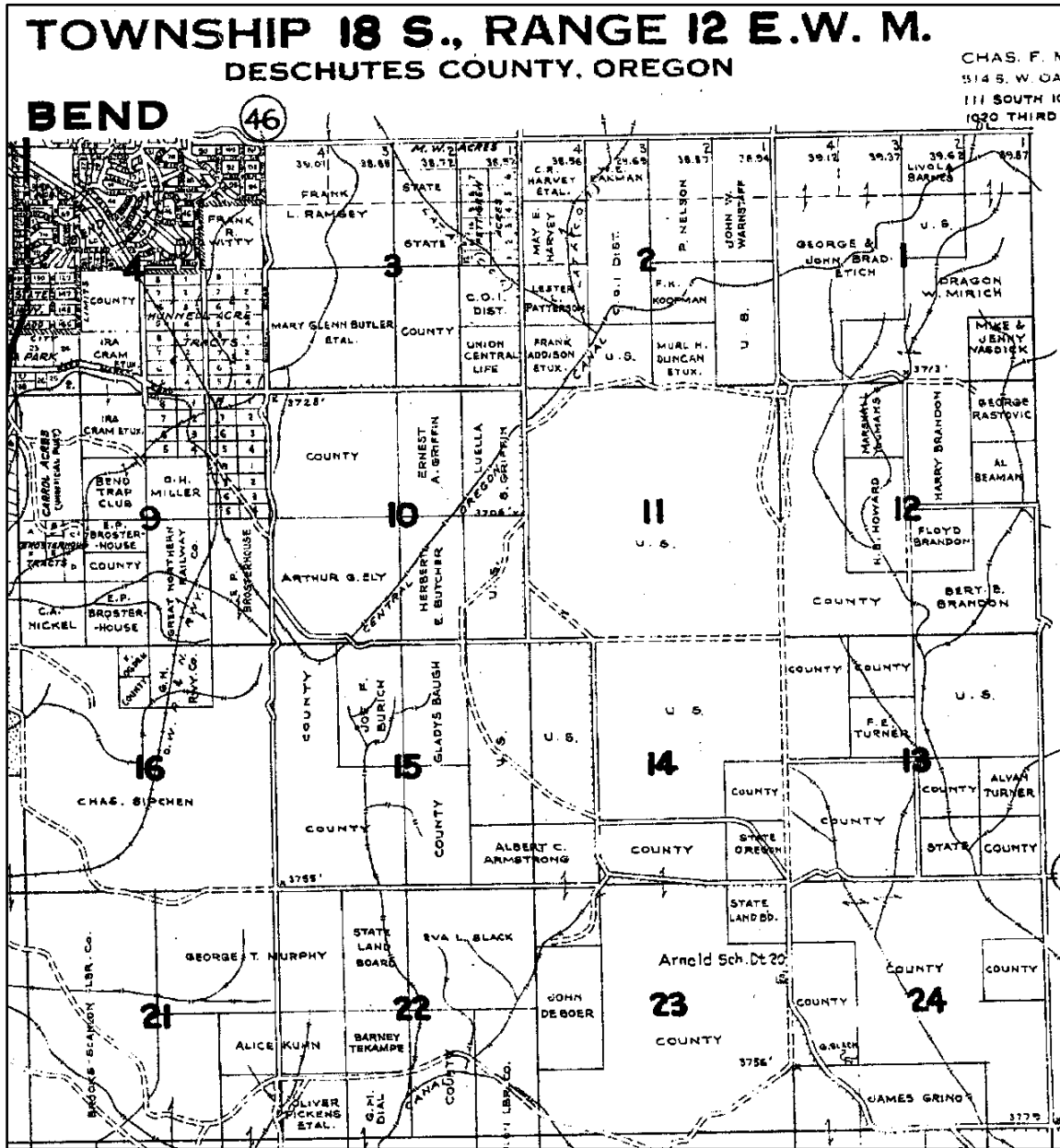
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FIGURE 16: Map dated 1944, Metsker's Atlas of Deschutes County, 16 square miles including T 18 S, R 12 E Section 1, indicating property ownership.



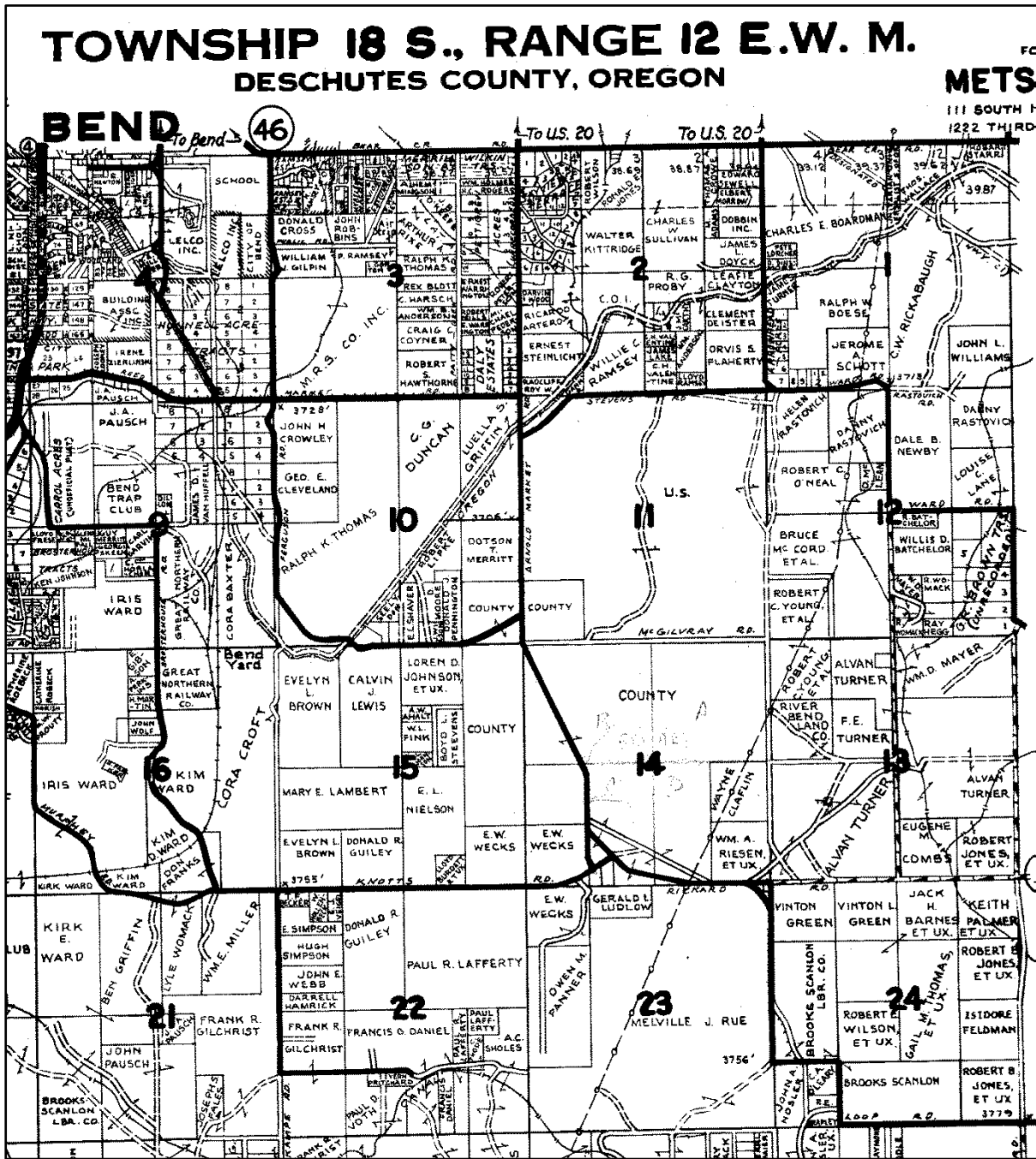
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FIGURE 17: Map dated 1972, Metsker's Atlas of Deschutes County, 16 square miles including T 18 S, R 12 E Section 1, indicating property ownership.



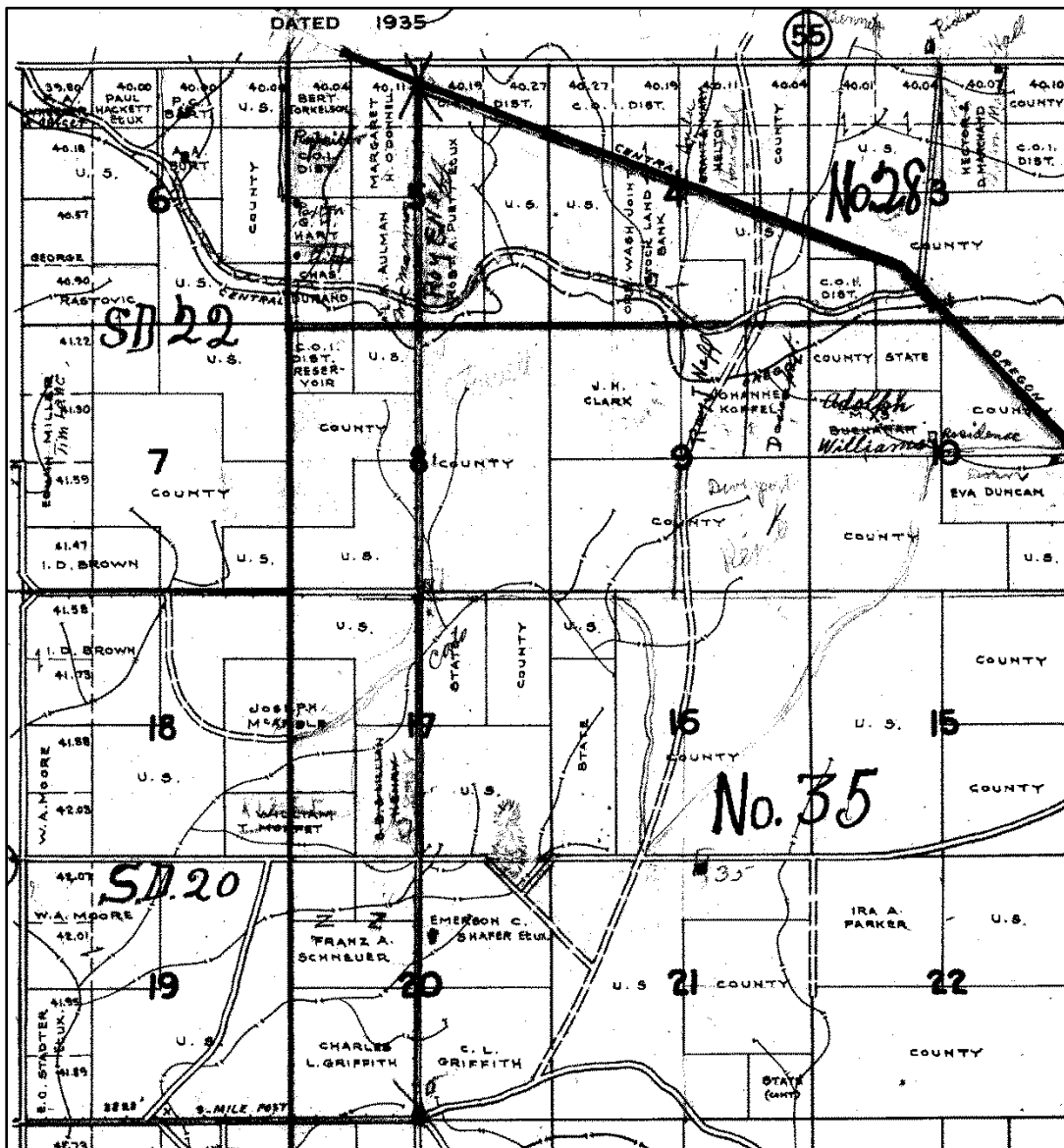
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FIGURE 18: Map dated 1935, Metsker's Atlas of Deschutes County, 16 square miles, including T 18 S, R 13 E Sections 5, 6, and 8, indicating property ownership.⁴¹⁴



⁴¹⁴ Handwriting is by the Deschutes County Clerk over time. Numbers are the school districts.

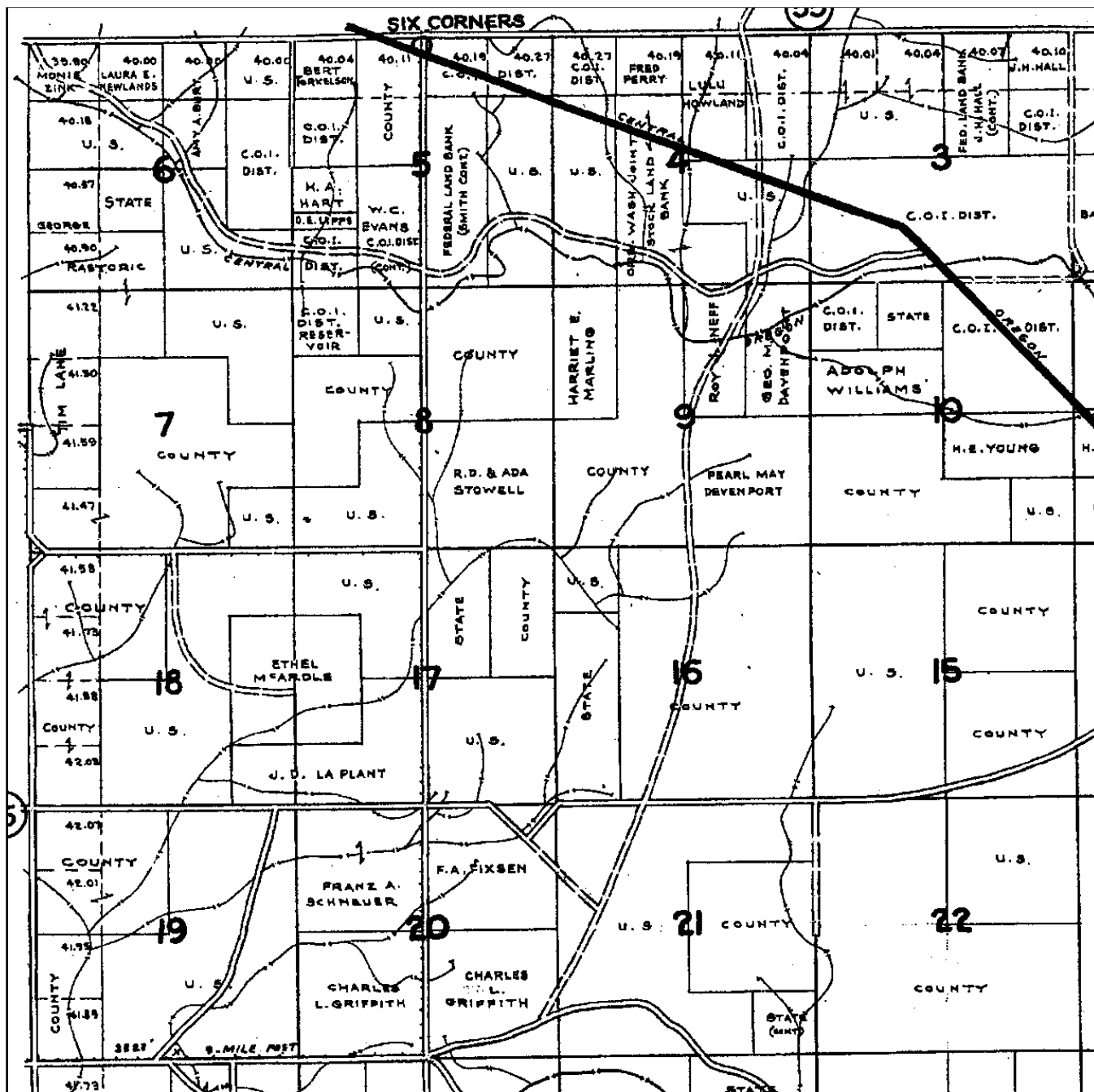
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FIGURE 19: Map dated 1944, Metsker's Atlas of Deschutes County, 16 square miles, including T 18 S, R 13 E Sections 5, 6, and 8, indicating property ownership.



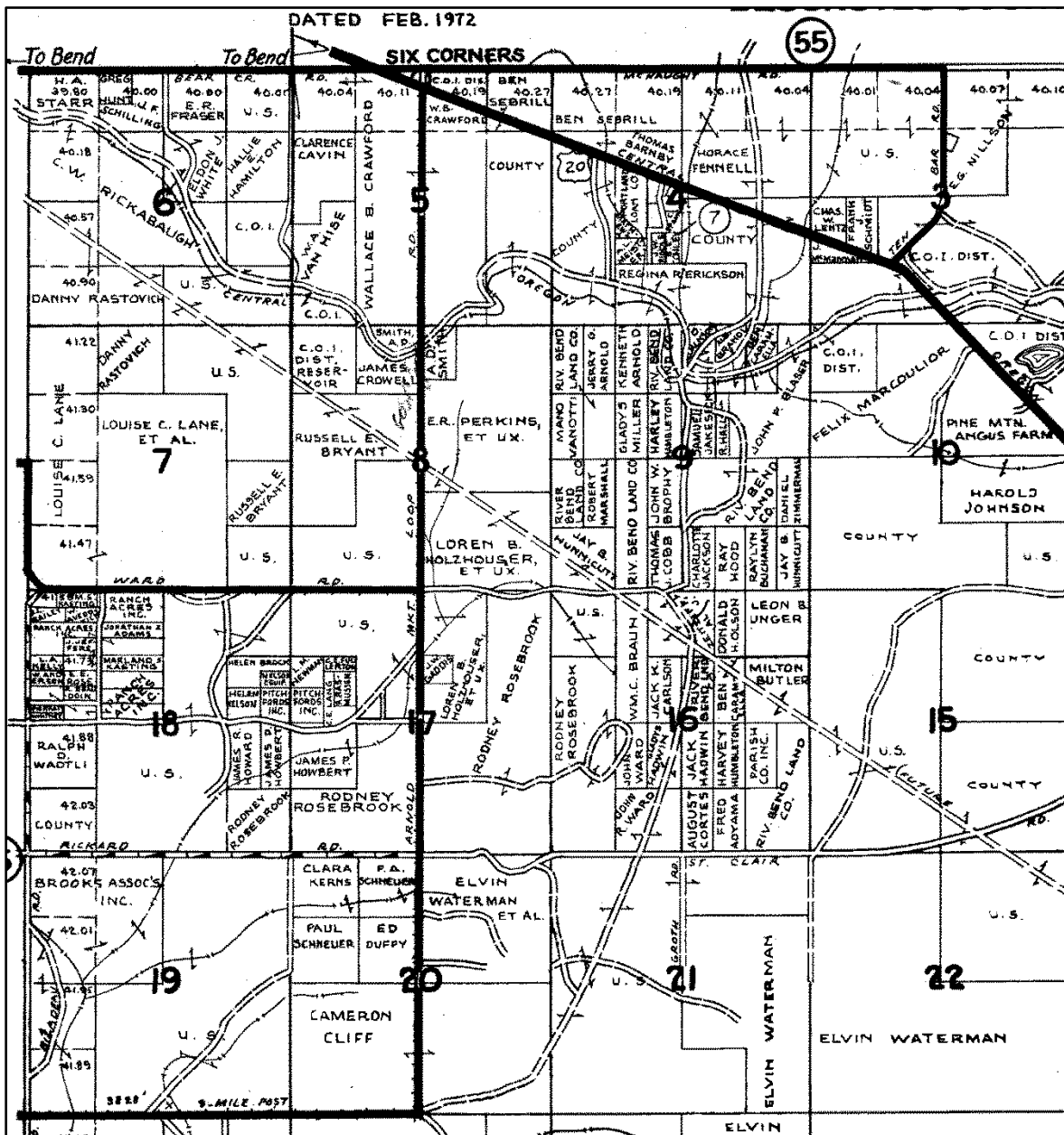
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FIGURE 20: Map dated 1972, Metsker's Atlas of Deschutes County, 16 square miles, including T 18 S, R 13 E Sections 5, 6, and 8, indicating property ownership.⁴¹⁵



⁴¹⁵ Arnold Market Loop Road is now named Gosney Road.

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FIGURE 22: Aerial Photo of Alfalfa Community, 2015 Imagery, 2017 Google earth



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FIGURE 23: Aerial Photo of Powell Butte Community, 2015 Imagery, 2017 Google earth



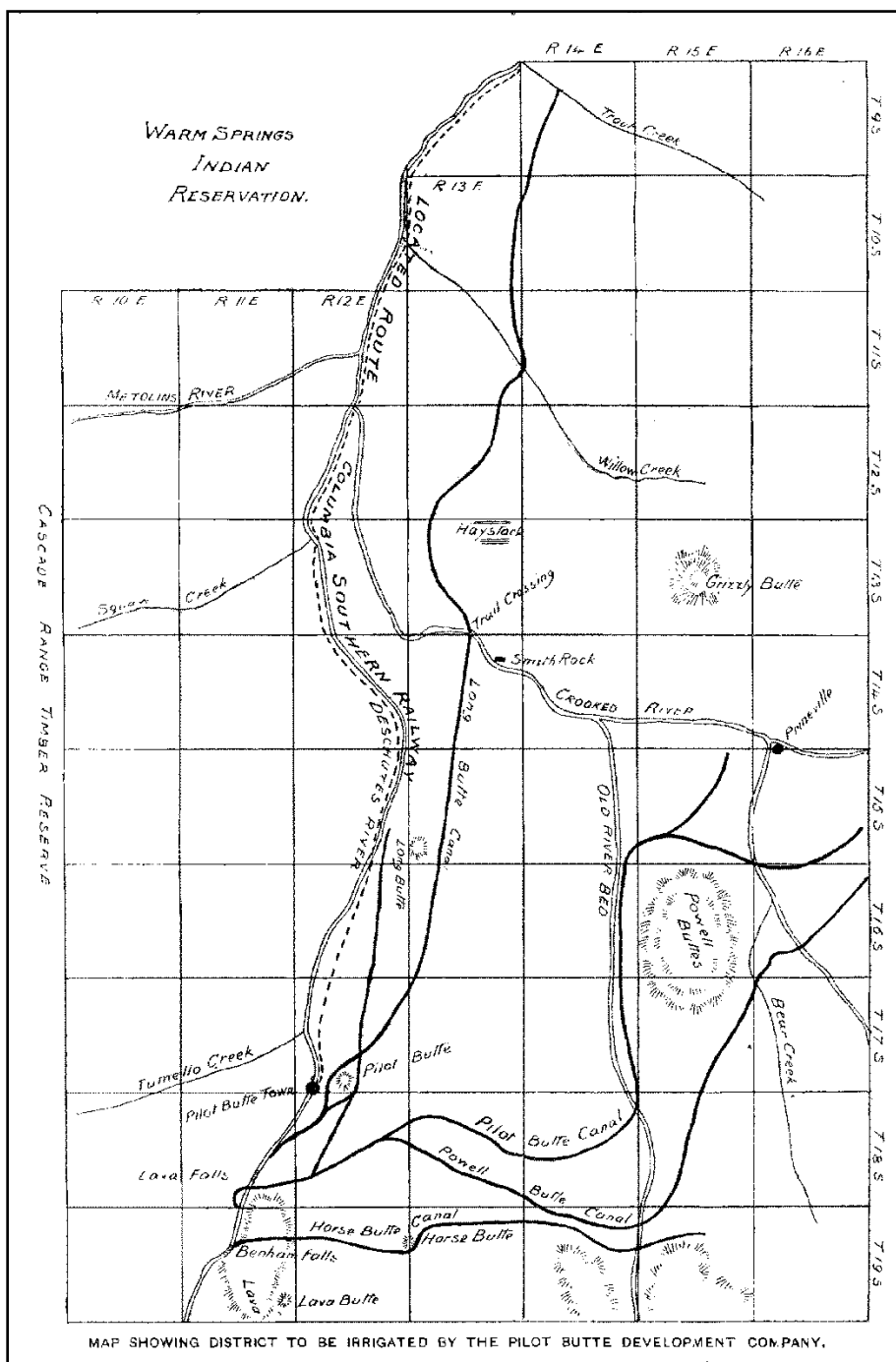
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FIGURE 24: Concept Map drawn for Alexander Drake in 1900 of the possible irrigation systems and a railroad on the east side of the Deschutes River, covering an area 36 miles wide by 66 miles long between Lava Butte on the south and Trout Creek on the north. ^{cdxvi}



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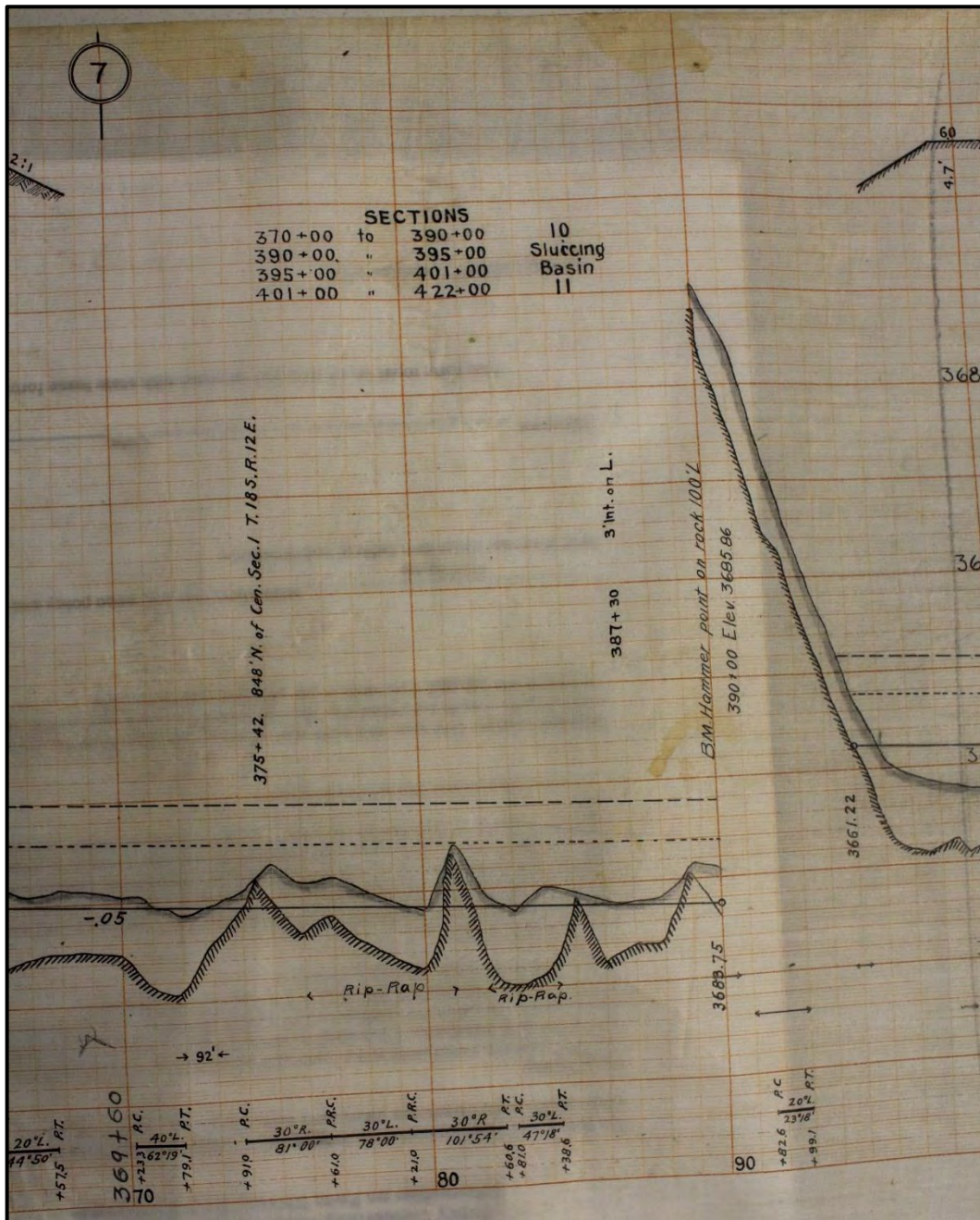
Name of Property
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FIGURE 25a: 1905 Construction Drawing, existing profile of terrain, estimate of rock to be removed, and proposed water line at mile post 7 and showing plans for drops at Bear Creek Bridge. The Deschutes Irrigation & Power Co. Progress of Work COC, Chief Engineer's Office, Bend, Oregon, March 31, 1905. (COID Collection, Redmond, OR)



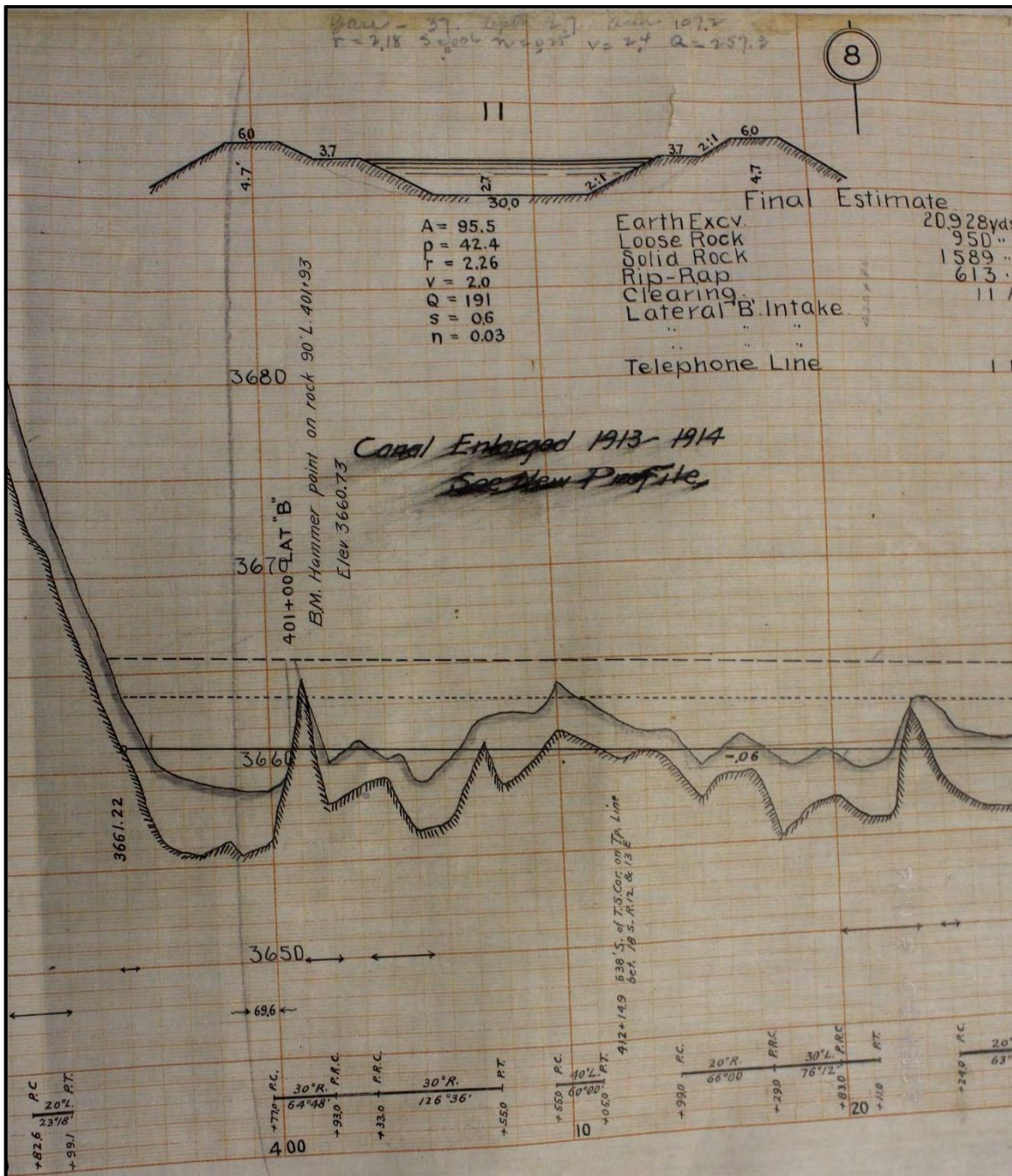
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FIGURE 25b: 1905 Construction Drawing, existing profile of terrain, estimate of rock to be removed, and proposed water line at mile post 7.5 and showing plans for Lateral B. The Deschutes Irrigation & Power Co. Progress of Work COC, Chief Engineer's Office, Bend, Oregon, March 31, 1905. (COID Collection, Redmond, OR)



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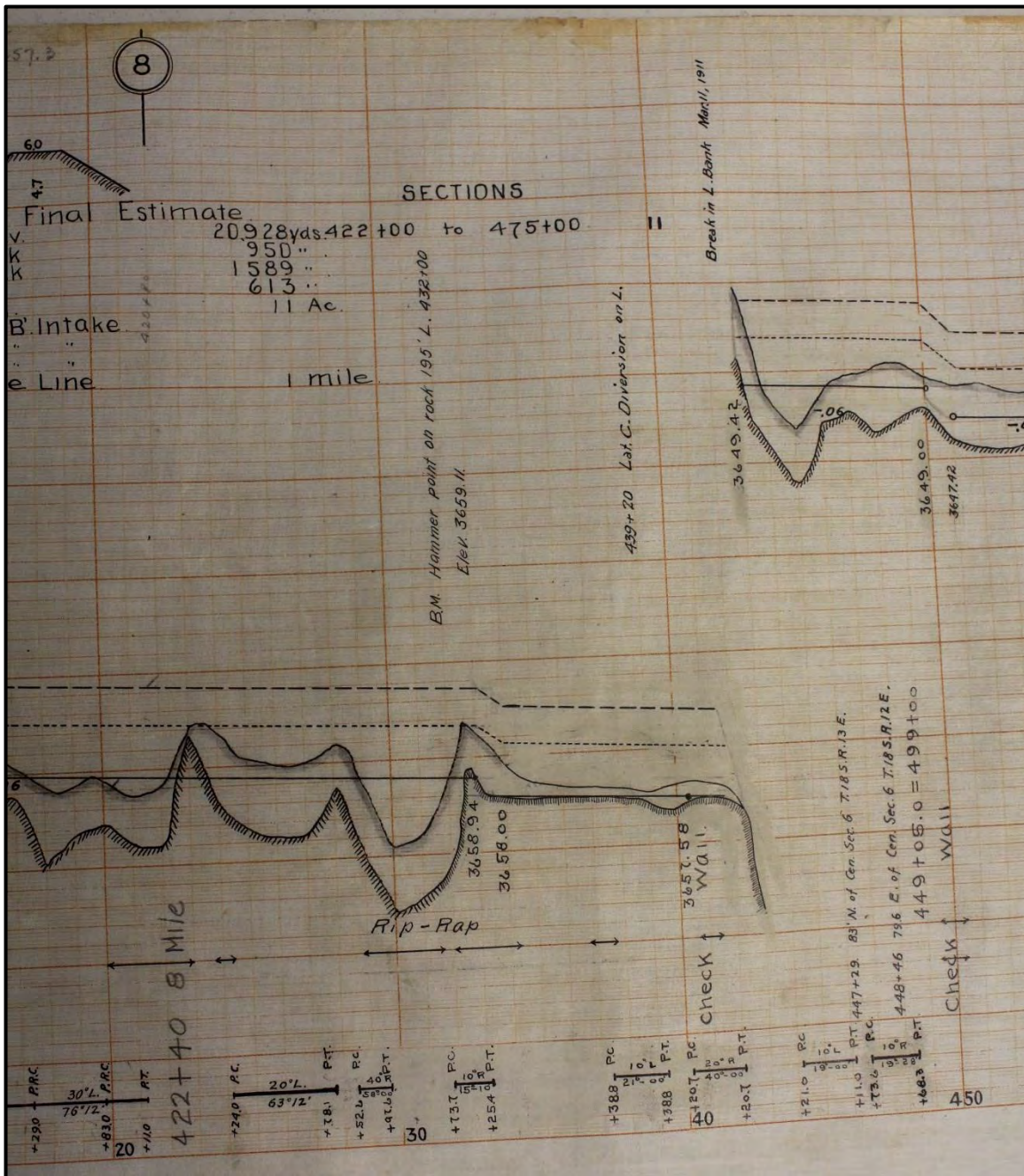
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FIGURE 25c: 1905 Construction Drawing and estimate of rock to be Removed at mile post 8 and showing plans for and diversion for Lateral C. The Deschutes Irrigation & Power Co. Progress of Work COC, Chief Engineer's Office, Bend, Oregon, March 31, 1905 (COID Collection, Redmond, OR).



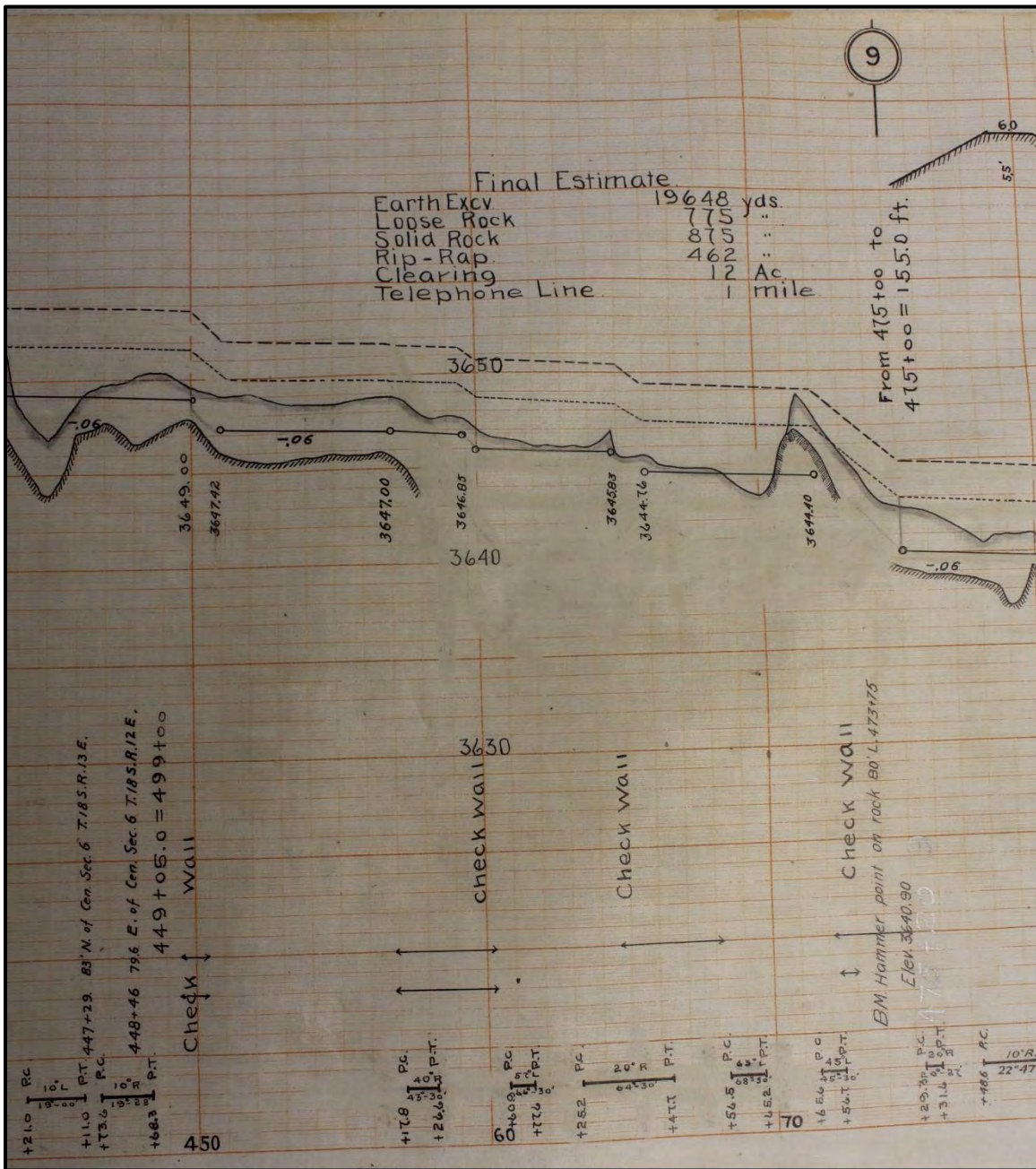
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FIGURE 25d: 1905 Construction Drawing and estimate of rock to be removed at mile post 8-9, showing drops and profile of canal. The Deschutes Irrigation & Power Co. Progress of Work COC, Chief Engineer's Office, Bend, Oregon, March 31, 1905. (COID Collection, Redmond, OR)



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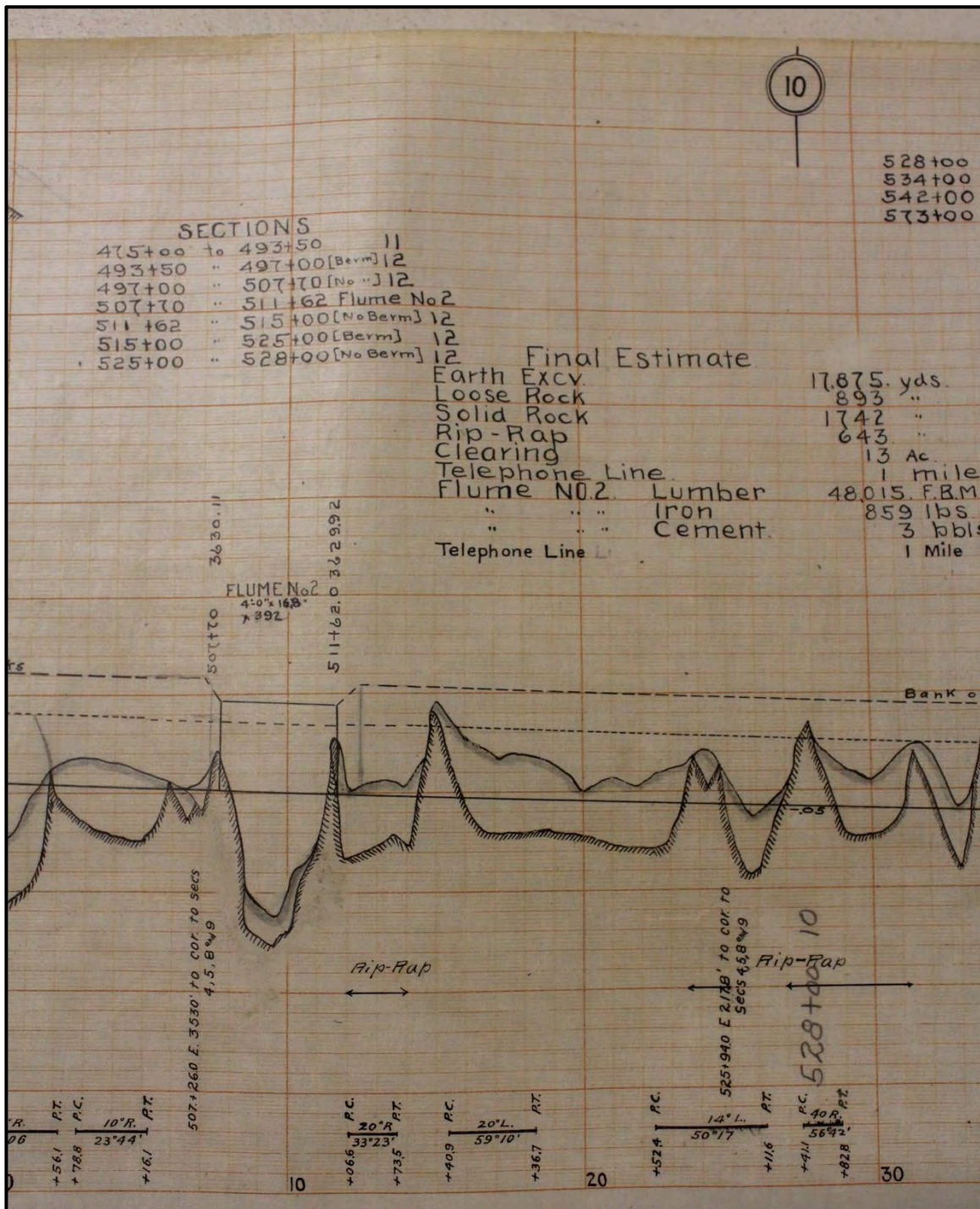
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FIGURE 25e: 1905 Construction Drawing and estimate of rock to be removed around Flume No. 2, just west of mile post 10. The Deschutes Irrigation & Power Co. Progress of Work COC, Chief Engineer's Office, Bend, Oregon, March 31, 1905. (COID Collection, Redmond, OR)



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FIGURE 26a: 1943 Aerial Photo labeled 11-L11-200, US Army. Photo taken on October 8, 1943. (Deschutes National Forest Service Administration, Bend, OR, Collection)



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FIGURE 26b: 1943 Aerial Photo labeled 12-L11-200, US Army. Photo taken on October 8, 1943. (Deschutes National Forest Service Administration, Bend, OR, Collection)



Photo shows from left to right, Ward Road Bridge, Gate COC 8, Bradetich Dairy Bridge, Gates COC 9 and 10, catwalk at Gate COC 11, metal pipe across canal, Bear Creek Ranch Bridge. Burt Chute and Settling Pond and Pioneer Bridge across Burt Chute; Gates COC 12 and 13, B Lateral, B-1 Lateral, C Lateral and Stearns Waste with catwalk.

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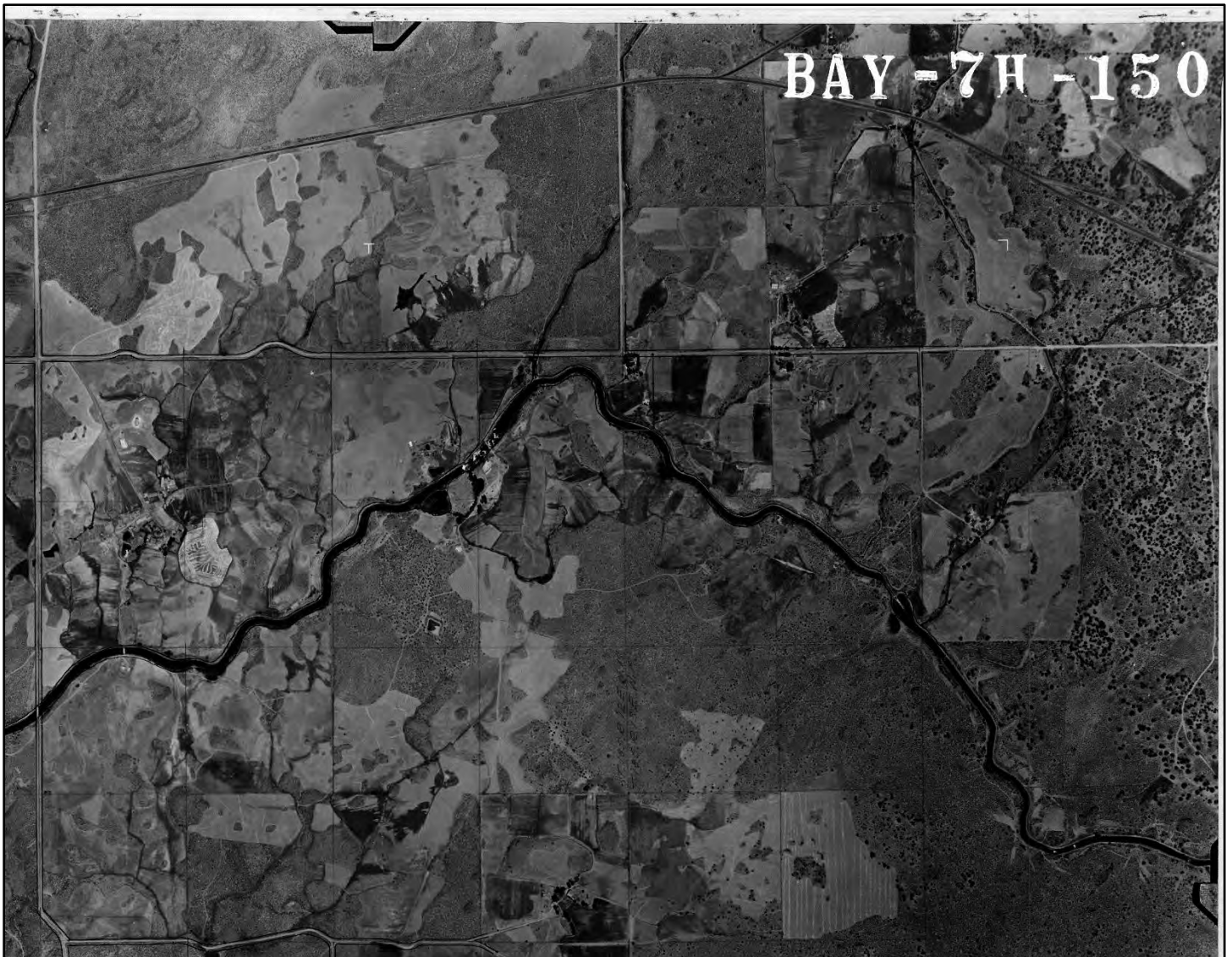
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FIGURE 27a: 1951 Aerial Photo by U.S. Department of Agriculture, Production and Administration. Photo taken on July 30, 1951, Bay-7H-1. Photo shows Bear Creek Bridge, Burt Chute, Burt Bridge, Burt Pond, Whitewater from drops and rapids, catwalk at Headgate #4, laterals and ditches. (Deschutes County Surveyor's Office Collection.)



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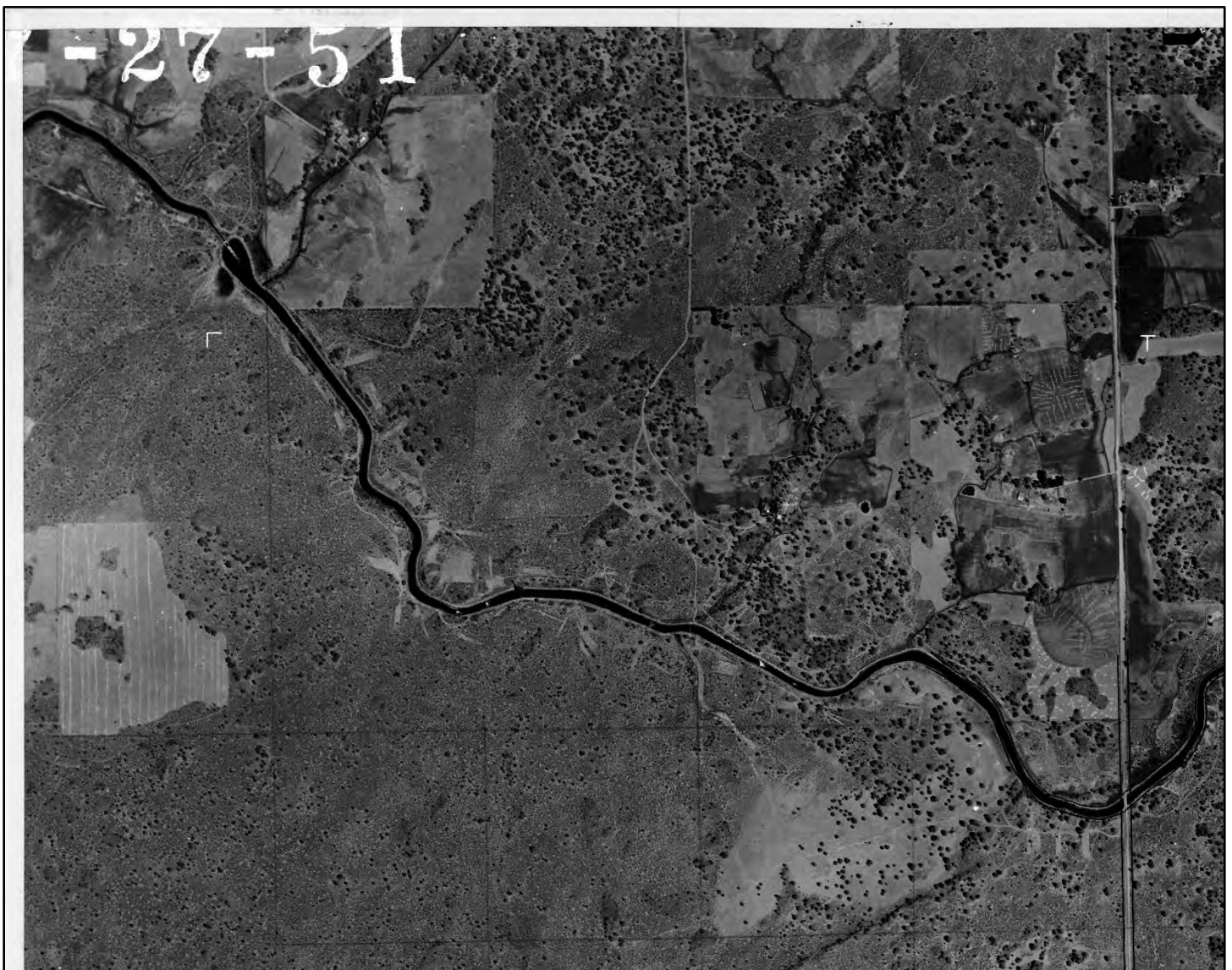
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FIGURE 27b: 1951 Aerial Photo by U.S. Department of Agriculture, Production and Administration, July 27, 1951. Bay- 1H – 159. Photo shows Burt Chute, Burt Bridge, Burt Pond, Stearns Waste gates and catwalk, whitewater at drops, laterals and ditches. (Deschutes County Surveyor's Office Collection.)



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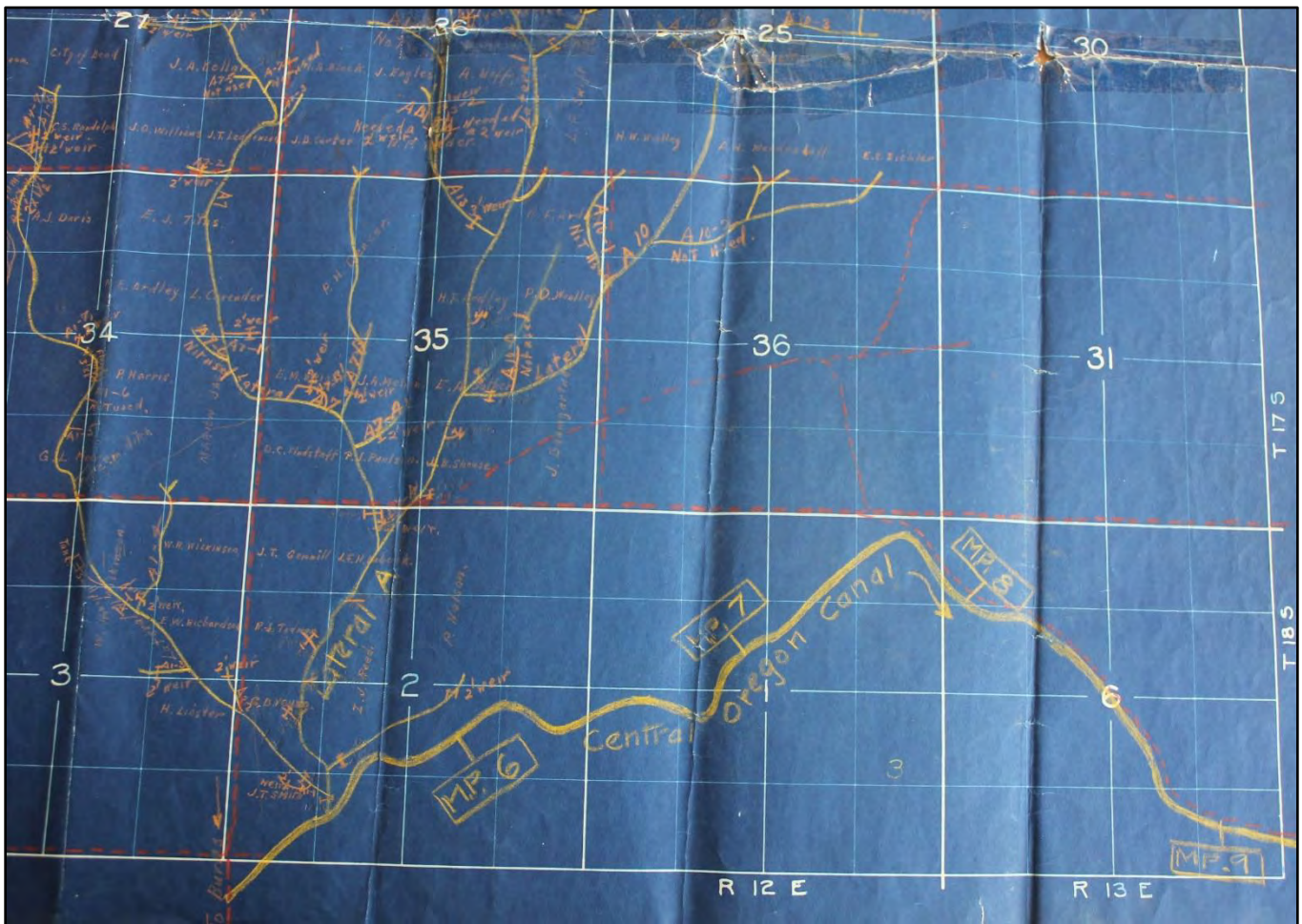
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FIGURE 28: 1914 Partial Blueprint with Chalk Drawing of the COC showing Lateral A and Mile Posts 7, 8 and 9 within the Historic District. The Drawing is by John DuBois, inspector for the State of Oregon Desert Land Board. (Desert Land Board Reclamation Records Collection of the Oregon State Archives.)



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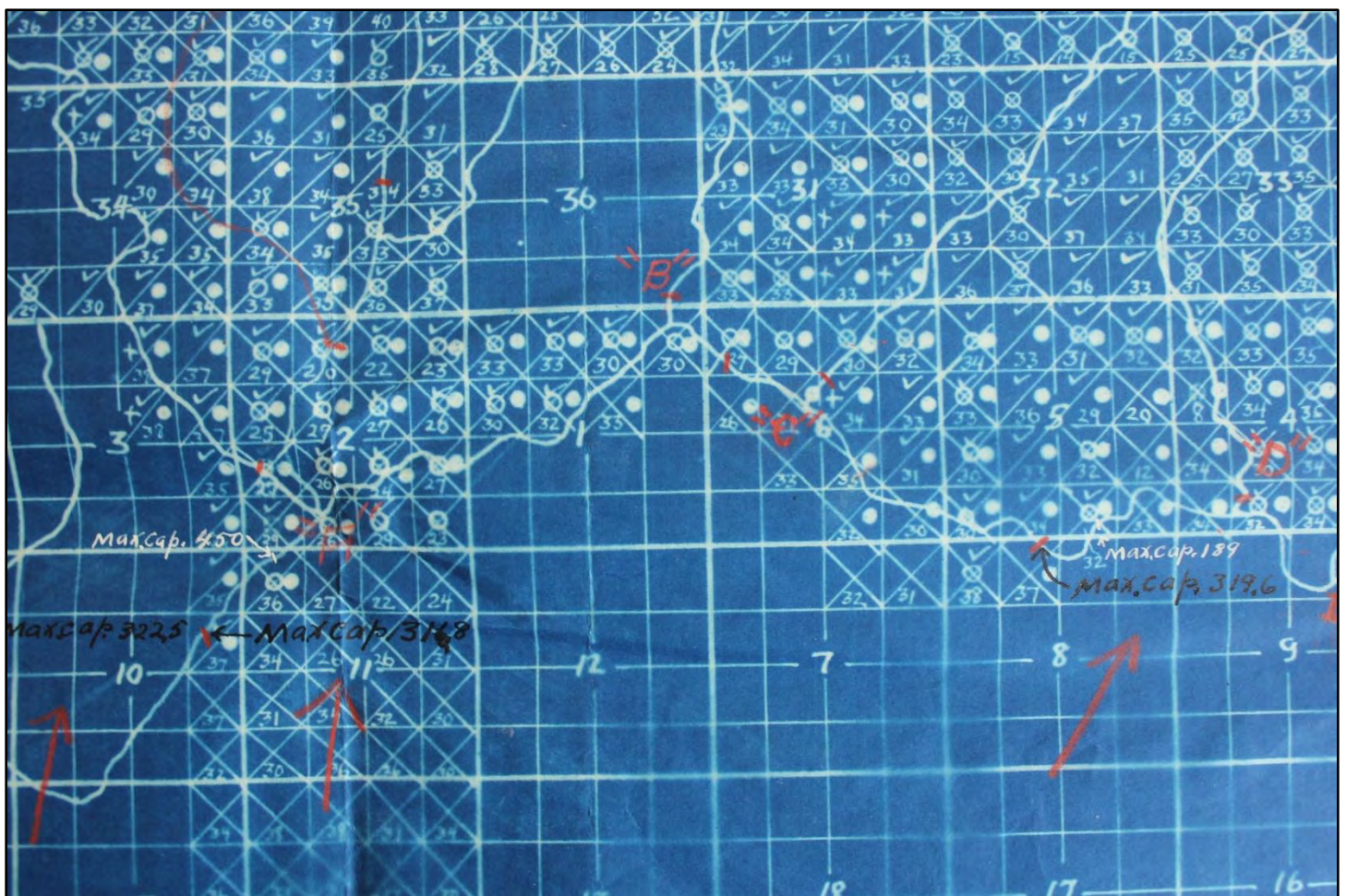
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FIGURE 29: Ca 1909 Drawing Entitled, "Capacities shown in white on COC were compiled by C. M. Redfield, Chief Engineer Deschutes Irrigation and Power Company. Capacities shown in black were compiled by H. K. Donnelly, Field assistant to State Engineer." Red ink shows the laterals. Drawing was in preparation for widening the canal in this location. (Desert Land Board Reclamation Records Collection of the Oregon State Archives.)



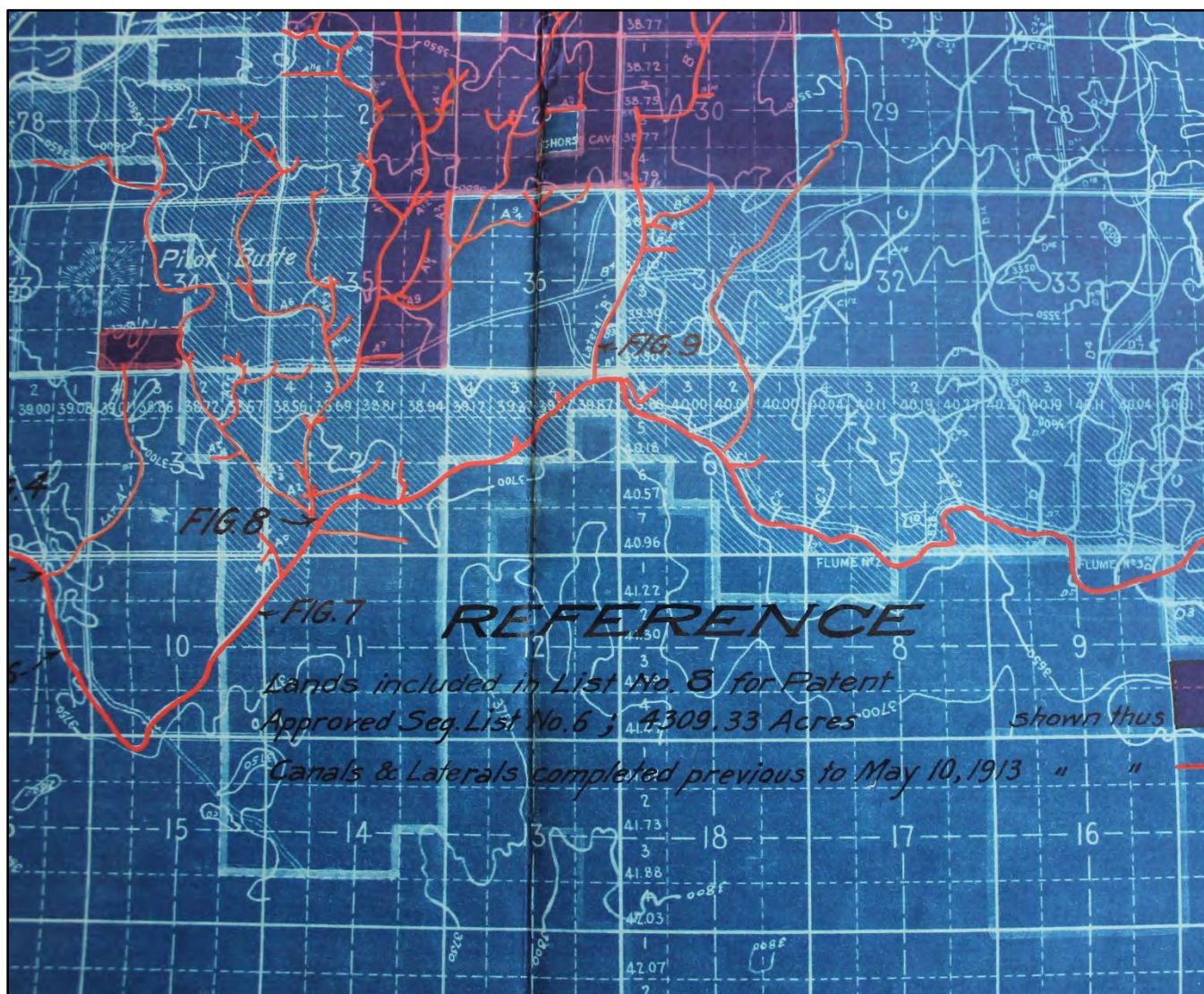
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FIGURE 30: May 10, 1913 Partial Blueprint with Colored Ink of the COC and Laterals A, B and C. (Desert Land Board Reclamation Records Collection of the Oregon State Archives.)



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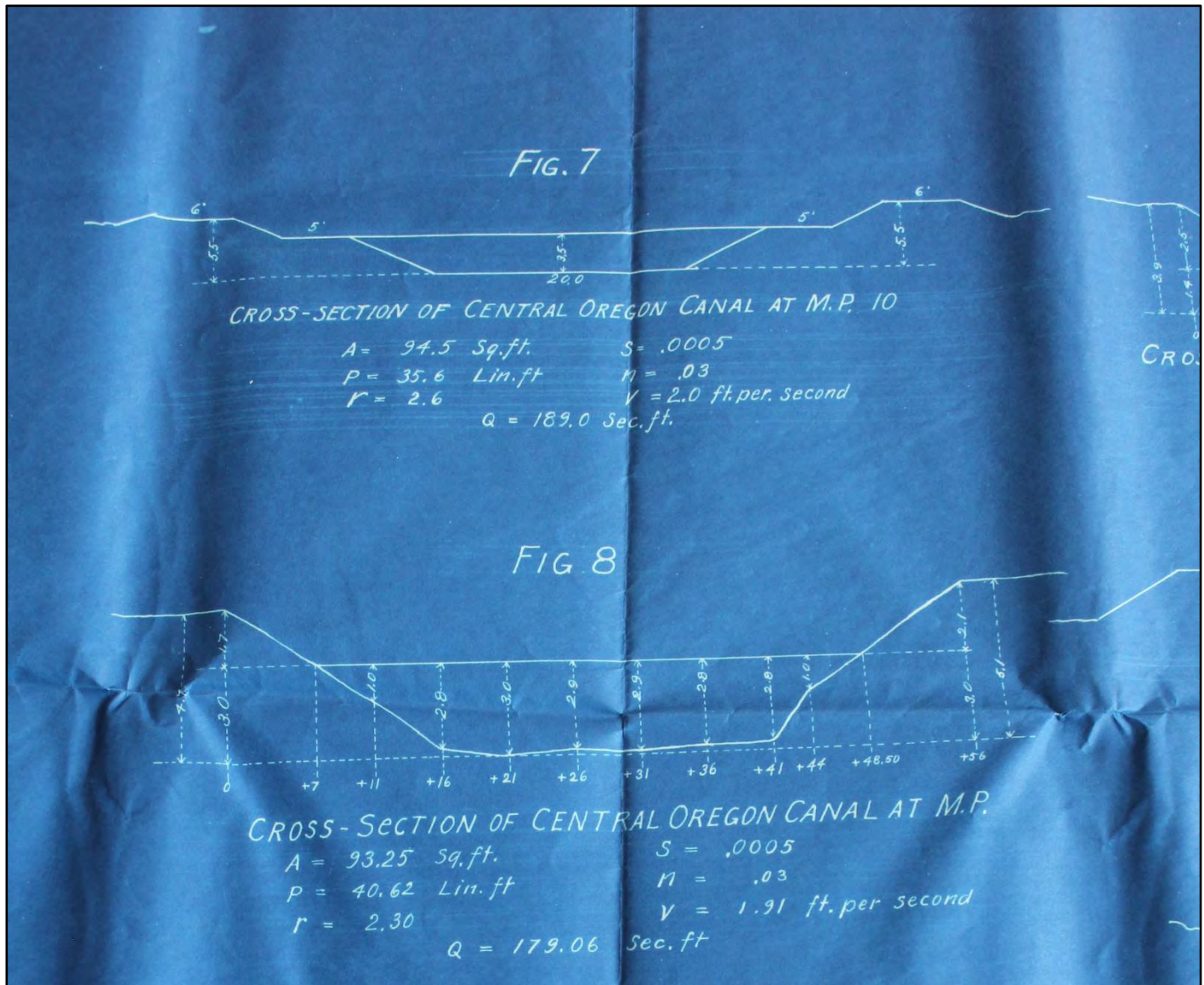
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FIGURE 31: Ca 1910 Cross Section Drawings for the COC at Mile Post 10, at the Eastern Portion of the Historic District. Drawings attributed to C. M. Redfield. See Figure 26. (Desert Land Board Reclamation Records Collection of the Oregon State Archives.)



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FIGURE 32: Archaeological Site Form, 35DS3033

Appendix A:
Archaeological Site Form
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State of Oregon Archaeological Site Record

| Administrative Data | | | | | | | | | |
|--|--|---------------------|------------------------------|----------------------------------|-----------------------|-------------|-------------|------------|--|
| Smithsonian Number: | 35DS3033 | | | | Alt Site Nbrs: | COID-18-008 | | | |
| Site Name: | COC Flume no. 2 Remnant | | | | Form Type: | New | | | |
| Managing Office*: | Private | | | | County: | Deschutes | | | |
| Owners(s): | Private | | | | | | | | |
| Ownership/Management Notes: | Central Oregon Irrigation District (COID) owns/manages the site. | | | | | | | | |
| National Register Status: | Status | Role | Date | Author | | | | | |
| | Not Eligible | Lead Agency/Manager | 10/29/2018 | C Horting-Jones | | | | | |
| | Eligible | SHPO | 01/11/2019 | SHPO Approval | | | | | |
| Site Identification | | | | | | | | | |
| Site Type | • Other | | | | | | | | |
| Features*: | • Flume | | Cultural Periods(s)*: | • Early 20th Century (1900-1930) | | | | | |
| Dimensions: | Length | 400 | Width | 20 | Units | Feet | Area | 8000 Sq f | |
| Depth of Cultural Deposits | 30 cm | | | | | | | | |
| General Age | Historic | | | | | | | | |
| Location Data | | | | | | | | | |
| Legal Description: | Township | Range | Section | ¼ | ¼ | ¼ | DLC | Meridian | |
| | 18 S | 13 E | 5 | SE | SE | SW | | Willamette | |
| | 18 S | 13 E | 8 | NE | NE | NW | | Willamette | |
| UTM Coordinates | Type | East | North | Method | | Zone | Datum | | |
| | Centerpoint | 644534 | 4877487 | 24k map | | 10 | 83 | | |
| Map References | Map Name/Year | | | | Revision Year | | | | |
| | BEND AIRPORT 7' | | | | | | | | |
| Access Description | From Bend, OR, travel eastward on SR20. Turn south (right) onto Gosney Rd., travelling for approx. 1 mile. Turn west onto the ditchrider road that parallels (along the north side of) the Central Oregon Canal. Continue along the ditchrider road for approx. 670 ft. The eastern end of the site is immediately to the right/south within the Canal. The western end is an additional 400 ft. upstream. | | | | | | | | |
| Environmental Data | | | | | | | | | |
| Province | High Lava Plain | | | | | | | | |
| Basin | Deschutes | | | | | | | | |
| Subbasin | LOWER CROOKED R | | | | | | | | |
| Drainage Name | | | | | | | | | |
| Elevation | From 3585 To 3590 ft | | | | | | | | |
| Aspect | Aspect: S | | | | | | | | |
| Depositional Environment | <ul style="list-style-type: none"> • Colluvial • Residual | | | | | | | | |
| Soil Description | site is situated within prism of Central Oregon Canal. Soils adjacent to the canal are shallow sandy loams, overlying basalt flows | | | | | | | | |
| Vegetation Description | Site is located within the western Juniper woodland of the high lava plains of central Oregon. Because of the development of the irrigation system, surrounding lands were developed as agricultural - crops, livestock grazing pasturage - in the early 20th century. | | | | | | | | |
| Culturally Significant Vegetation | <ul style="list-style-type: none"> • Domestic/Agriculture • Western Juniper | | | | | | | | |
| Water Sources | Name | Type | Stream Type | Stream Class | Distance | Direction | | | |
| | Deschutes River | River | Perennial | | 9950 meters | 270 deg | | | |

| | | | | | |
|---|--|--|---------------------|-------------------|-------------|
| Site Setting | Site is located within the prism of the Central Oregon Canal, which runs generally west to east within the high lava plains east of Bend, Oregon. The canal was excavated through generally shallow sandy loam soil and basalt bedrock. Naturally occurring Western juniper woodland has been converted into agricultural lands due to the application of irrigation water and arrival of homesteaders since the early 1900s under authority of the Carey Act. | | | | |
| Site Description | | | | | |
| Site Description | site is composed of the remains of a wooden flume which was constructed in 1904-1905 to convey irrigation water across a low spot along the Central Oregon Canal. It is not known if the flume was a semi-circular wooden stave or wooden box flume, as both types were constructed and used by the Central Oregon Irrigation District. Remnants consist of 49 6"x6" wooden square support and bracing posts protruding from the floor of the canal bed, arranged in 6 rows (E-W) of 7 posts per row. The canal bed within the site boundary is covered in silt and broken bedrock to an unknown depth, so it is not known if the wooden posts were dug into and/or anchored to the underlying basalt bedrock, or just set onto (ie, unanchored) bedrock. An approx. 12 ft. long wooden crossbeam or footer is partially buried within the canal bed, near the western end of site. 12" wire-cut nails are also present. The flume - listed as COC Flume no. 2 in COID design drawings - was 392 ft. in length, 16.8 ft. wide, and 4 ft. deep, designed with intake and outlet transition structures at either end, wherein waters were directed from the wide, earthen canal to the narrower flume, and from the flume back into the canal prism. Flume no. 2 is mentioned in a Progress of Work report dated 10/3/1904 as issued by the Chief Engineers Office, Bend Oregon. It is unknown if the original flume was rebuilt or replaced, or when the flume was removed; it is not included in a 1976 inventory of flumes within the COID system, so was dismantled sometime prior to that date. | | | | |
| Dates of Use | From | To | BP/AD/BC | Method | |
| | 1905 | 1976 | AD | Historic Record | |
| Site Observations | Present | | | | Quantity |
| | Wood Other | | | | 49 |
| | Metal Other | | | | 10 |
| Estimated Counts | Prehistoric: | Historic: | | | 60 |
| Rock Art | | | | | |
| No Rock Art Specified | | | | | |
| Site Condition | | | | | |
| Visit Date | 11/20/2018 | | | | |
| Site Condition | Destroyed- Site Damage greater than 95% | | | | |
| Field Recorder | C Horting-Jones, Bureau of Reclamation | | | | |
| Artifacts Collected? | No | | | | |
| Activities/Work Performed | documentation of historic archaeological site situated within the nominated Central Oregon Canal NRD (Ward to Gosney Road segment). Site is not individually eligible, but eligible as a contributing site/feature to the NR District | | | | |
| Impacts/Impact Agents | <ul style="list-style-type: none"> • Water/Inundated • Weathering | | | | |
| Protective Measures Recommended | N/A | | | | |
| Bibliographic References | | | | | |
| Author | Publication Year | Title | Agency/Organization | Primary Reference | User Agency |
| Pat Kliewer | 2019 | National Register Nomination: Central Oregon Canal Historic District (Ward Road - Gosney Road Segment) | | Yes | |
| Files Uploads | | | | | |
| <ul style="list-style-type: none"> • flume pic.pdf • SITE PHOTOS9.pdf • site Map1.jpg • Site location map10.pdf | | | | | |
| Form Entry Recorder: | Chris Horting-Jones | | | Date: 10/29/2018 | |





Example of a semi-circular wooden stave flume under construction within the Central Oregon Irrigation District. While not specifically the Central Oregon Canal Flume no. 2, this photo illustrates construction techniques as well as the support structure for these types of features. Photo courtesy of COID.

SITE PHOTOS – temp. site no. COID-18-008



Overview of flume remnants from along the north side of canal, approx. middle of site, facing east. Ditchrider road to left. Note linear alignment of post remnants, depth and steepness of south canal wall.



Same view as above photo, taken from inside the canal facing east.



Overview of west end of site from the ditchrider road, facing west. The flume's intake transition would have been just beyond (behind) the wooden posts, at the edge of the elevated bedrock.

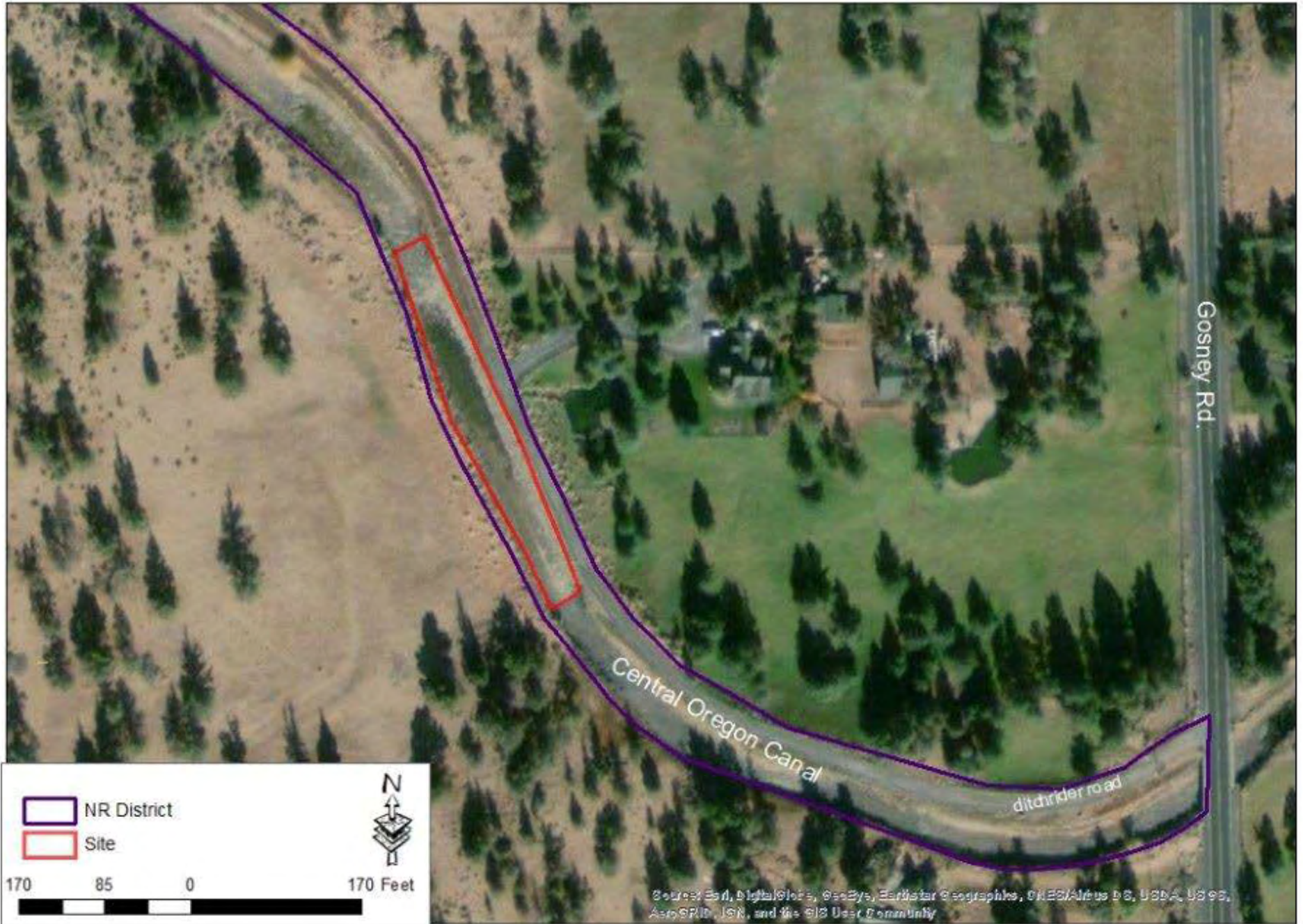


View of the west end of site- wooden flume support posts. Photo taken inside the canal.

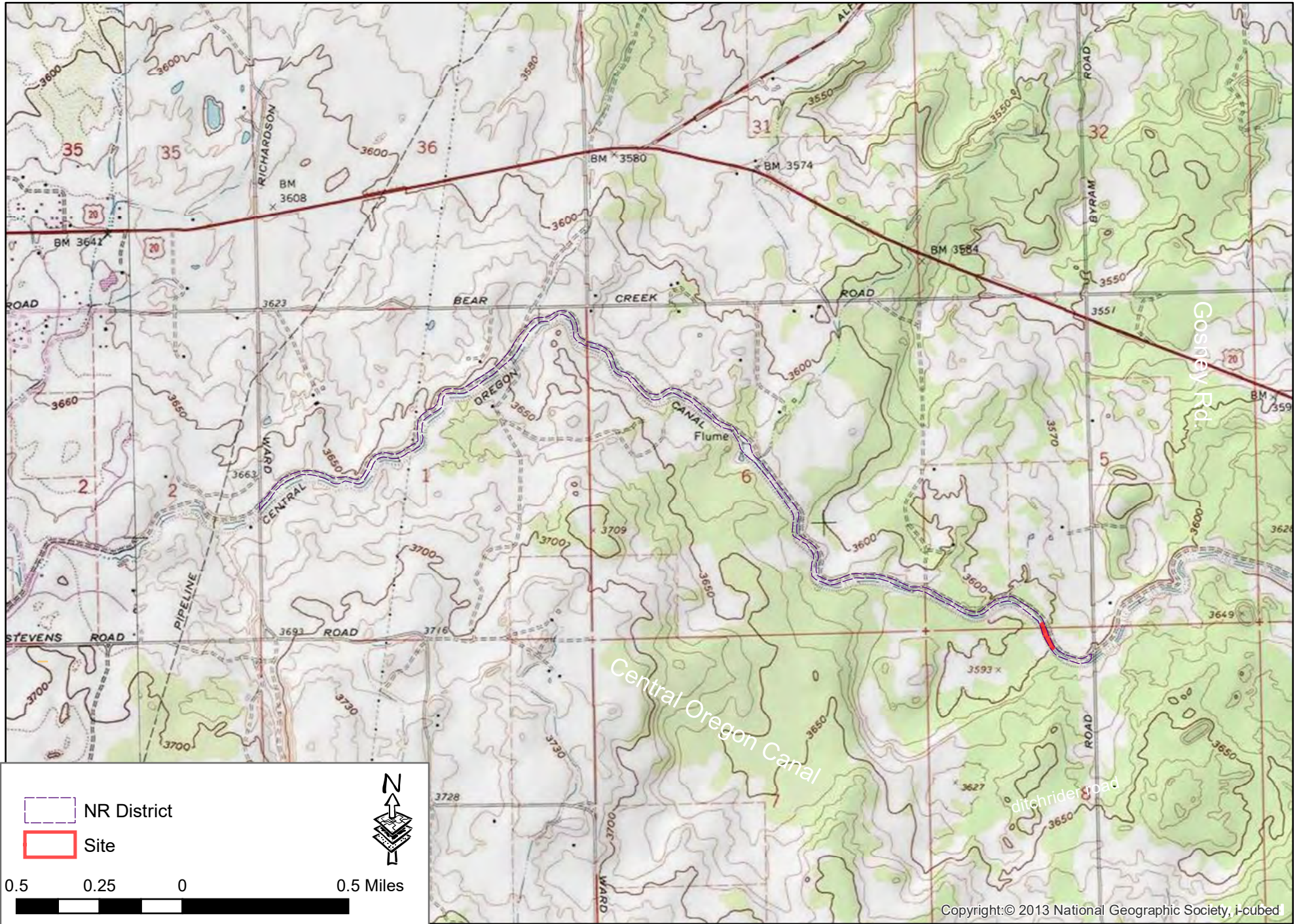


View of partially buried wooden flume crossbeam or footer.
North aspect.

Site Map - Central Oregon Canal Flume no. 2 Remnant
COID-18-008



Site Location - Central Oregon Canal Flume no. 2 Remnant COID-18-008











































National Register of Historic Places
Memo to File

Correspondence

The Correspondence consists of communications from (and possibly to) the nominating authority, notes from the staff of the National Register of Historic Places, and/or other material the National Register of Historic Places received associated with the property.

Correspondence may also include information from other sources, drafts of the nomination, letters of support or objection, memorandums, and ephemera which document the efforts to recognize the property.

MEMORANDUM

DATE: January 17, 2019
TO: Joy Beasley, National Register Chief, National Park Service
FROM: Ian Johnson, Associate Deputy State Historic Preservation Officer
RE: Nomination process for the Central Oregon Canal Historic District, Deschutes Co., OR

The Oregon State Historic Preservation Office (SHPO) submits the enclosed property-owner list and count of notarized objections for the nomination of the proposed Central Oregon Canal Historic District, Deschutes Co., OR (District). The total number of identified property owners is 65. The SHPO counted the total number of valid objections under the federal regulations. As of 10:00 am on January 16, 2019, our office received notarized objections from 3 property owners within the nominated area, one of which is Central Oregon Irrigation District (COID). Included in the submitted correspondence is a memo provided to the Deschutes County Historic Landmarks Commission indicating COID now supports the nomination, however, to date they have not officially rescinded their earlier objection. In any case, as a quasi-governmental organization, our office has determined that COID is a political subdivision of the State of Oregon, and therefore their objection does not count toward the total objections count for the nomination. Therefore, the total number of objecting property owners is 2, or 3% of the total number of owners. It is therefore the determination of the SHPO that the majority of the property owners consent to listing the District in the National Register of Historic Places.

The following documents are included on the enclosed disks with the digital National Register of Historic Places form: A copy of the original property-owner list provided to our office by Deschutes County; the property-owner list that SHPO prepared according to Chapter 36 of the Code of Federal Regulations, part 60 and NPS' guidance provided in November 2017; objections and letters of support received; scans of all correspondence related to the federal nomination public process; and the minutes and recording of the review board hearing. The SHPO retains a full record of all correspondence received and sent, and records created as part of the administrative process. The SHPO can provide this information upon request.

Public Process

The SHPO met or exceeded notice requirements for listing a property as described in 36CFR60.6(d). The development process for this nomination was complicated by a number of factors, and so a timeline of key events is provided below, including a summary of the office's notification and outreach efforts are provided below:

- **June 29, 2017** – The SHPO received the initial draft submission of the District nomination from the preparer.
- **September 1, 2017** – The SHPO sent written notification to all property owners, the Chair of the Deschutes County Board of County Commissioners, the Deschutes County Historic Landmarks Commission, proponents and preparer that the District nomination had been added to the agenda of the October 2017 SACHP meeting, with the URL for the nomination (posted to the SHPO website). Courtesy review copies of the draft nomination were provided to the Chair of the Deschutes County Board of County Commissioners, the Deschutes County Historic Landmarks Commission.
- **September 11, 2017** – Upon discovery of an error in the September 1 notice, SHPO reissued all notifications, as described above, identifying the error and providing corrections.
- **September 17, 2017** – The SHPO published a public notice in *The Bend Bulletin*, the local general circulation newspaper, announcing the availability of the official draft of the District. The SHPO posted the draft nomination to the agency website with information on the nomination process.
- **October 10, 2017** – SHPO sent a press release to local print, radio, and TV news outlets announcing the upcoming SACHP meeting to consider the proposed District nomination.
- **October 12 and 17, 2017** – SHPO received comments from the Deschutes County Board of Commissioners and the Deschutes County Historic Landmarks Commission (respectively), both recommending against listing. The import of this dual objection was not realized at the time, and the District nomination remained on the SACHP hearing agenda.
- **October 20, 2017** – The District nomination was considered by the SACHP, which elected to table the nomination for revision.
- **November 1, 2017** – A revised draft of the District nomination was received from the preparer by the SHPO.
- **November 9, 2017** – A further revised draft of the District nomination was received from the preparer by the SHPO.
- **December 14, 2017** – A further revised draft of the District nomination was received from the preparer by the SHPO, to be provided to the SACHP and reviewing bodies.
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- **January 2, 2018** – SHPO was alerted of the apparent consequences of the previously-mentioned dual objections from the Deschutes County Board of County Commissioners

and the Deschutes County Historic Landmarks Commission, and that the nomination should not have been taken up by the SACHP in October 2017.

- **February 5, 2018** – After consulting with the National Park Service and Oregon Department of Justice, and on the advice of both, the District nomination was removed from the February 2018 SACHP agenda.
- **April 9, 2018** – The SHPO sent written notification to all property owners, the Chair of the Deschutes County Board of County Commissioners, the Deschutes County Historic Landmarks Commission, proponents and preparer that the District nomination had been added to the agenda of the June 2018 SACHP meeting, with the URL for the nomination (posted to the SHPO website). Courtesy review copies of the draft nomination were provided to the Chair of the Deschutes County Board of County Commissioners, the Deschutes County Historic Landmarks Commission.
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- **June 22, 2018** – The District nomination was considered by the SACHP, which elected to table the nomination for further revision.
- **August 15, 2018** – After an agreement was reached between the proponents (property-owners) and COID (which to this point had opposed the nomination) to work together to complete the nomination, a revised draft was provided to SHPO for hearing at the October 2018 SACHP hearing.
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nomination, and to summarize key changes since the previous draft, reviewed in April and May, 2018.

- **October 9, 2018** – SHPO sent a press release to local print, radio, and TV news outlets announcing the upcoming SACHP meeting to consider the proposed District nomination.
- **October 11, 2018** – The Deschutes County Historic Landmarks Commission provided the SHPO with its review comments, indicating their support for listing, noting COID's support.
- **October 15, 2018** – The Deschutes County Board of County Commissioners provided the SHPO with its review comments, indicating their support for listing, noting COID's support.
- **October 19, 2018** – The District nomination was considered by the SACHP, which elected to recommend the COCHD be forwarded to the Keeper for listing in the National Register of Historic Places, conditioned on specific revisions being made.
- **October 2018 – January 2019** – The preparer and SHPO worked together to make the required revisions to the District nomination.
- **January 17, 2019** – SHPO sent the nomination document to the NPS.

The Oregon SHPO will forward to your office any additional correspondence or objections received once a week until the end of the NPS's 45-day consideration period.



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



January 17, 2019

Joy Beasley, Keeper
National Park Service
National Register of Historic Places
1849 C St. NW, Mail Stop 7228
Washington, D.C. 20240

Re: National Register Nominations

Dear Ms. Beasley:

At the recommendation of the Oregon State Advisory Committee on Historic Preservation, I hereby nominate the following historic properties to the National Register of Historic Places.

BLAKELY, CHARLES O. AND CARIE C., HOUSE

2203 SE PINE ST

PORTLAND, MULTNOMAH COUNTY

Staff contact: Robert Olguin, National Register Coordinator, (503) 986-0668

SIGGLIN, CHARLES. O., FLATS

701-709 SE 16TH AVE

PORTLAND, MULTNOMAH COUNTY

Staff contact: Robert Olguin, National Register Coordinator, (503) 986-0668

MCDONALD, DANIEL C. AND KATIE A., HOUSE

2944 NE COUCH ST

PORTLAND, MULTNOMAH COUNTY

Staff contact: Robert Olguin, National Register Coordinator, (503) 986-0668

KIERNAN HOUSE

1020 SW CHELTENHAM CT

PORTLAND, MULTNOMAH COUNTY

Staff contact: Robert Olguin, National Register Coordinator, (503) 986-0668

The enclosed disks contain true and correct copies of the above nominations to the National Register of Historic Places.

We appreciate your consideration of these nominations. If questions arise, please contact the coordinator listed below the property information.

Sincerely,

Christine Curran

Deputy State Historic Preservation Officer

Encl.





Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



January 17, 2019

Joy Beasley, Keeper
National Park Service
National Register of Historic Places
1849 C St. NW, Mail Stop 7228
Washington, D.C. 20240

Re: National Register Nomination

Dear Ms. Beasley:

At the recommendation of the Oregon State Advisory Committee on Historic Preservation, I hereby nominate the following historic property to the National Register of Historic Places:

**CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD – GOSNEY
ROAD SEGMENT)**
UNINCORPORATED, DESCHUTES COUNTY

The enclosed disk contains the true and correct copy of the nomination listed above to the National Register of Historic Places.

We appreciate your consideration of this nomination. If questions arise, please contact Jason Allen, Survey Program Coordinator, at (503)986-0579.

Sincerely,

Christine Curran
Deputy State Historic Preservation Officer

Encl.



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org

January 28, 2019

Joy Beasley, Keeper
National Park Service
National Register of Historic Places
1849 C St. NW, Mail Stop 7228
Washington, D.C. 20240



RE: National Register Nominations

Dear Ms. Beasley:

Oregon's State Review Board recommended for listing all six of the below nominations to be forwarded to your office on October 19, 2018. Our office completed our review of the nominations on January 17, 2019, the required 90-days per 36 CFR 60.11(e), and due to the partial federal government shutdown, we waited to send these six nominations until the National Park Service reopened.

Since the government has now reopened, enclosed are those six National Register nominations for your consideration.

BLAKELY, CHARLES O. AND CARIE C., HOUSE
2203 SE PINE ST, PORTLAND, MULTNOMAH COUNTY

SIGGLIN, CHARLES. O., FLATS
701-709 SE 16TH AVE, PORTLAND, MULTNOMAH COUNTY

CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD – GOSNEY ROAD)
UNINCORPORATED, DESCHUTES COUNTY

MCDONALD, DANIEL C. AND KATIE A., HOUSE
2944 NE COUCH ST, PORTLAND, MULTNOMAH COUNTY

KIERNAN HOUSE
1020 SW CHELTENHAM CT, PORTLAND, MULTNOMAH COUNTY

LAURELHURST HISTORIC DISTRICT
PORTLAND, MULTNOMAH COUNTY

Sincerely,

Robert T. Olguin, National Register Program Coordinator

Phone: (503) 986-0668

Email: robert.olguin@oregon.gov



MEMORANDUM

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FROM: Ian Johnson, Associate Deputy State Historic Preservation Officer
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The Oregon SHPO will forward to your office any additional correspondence or objections received once a week until the end of the NPS’s 45-day consideration period.

| Owner | Agent | Mailing Address | Mailing City/State/Zip | Mailing City | Mailing State | Mailing Zip |
|--|--------------------------------------|-------------------------|-------------------------------|---------------------|----------------------|--------------------|
| ALLAN BOSS REVOCABLE TRUST | BOSS, ALLAN S TTEE | 21975 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| GRUND FAMILY REVOCABLE LIVING TRUST | GRUND, GARY A & SUZANNE TTEES | 21925 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| MCDONALD, JENNIFER J | | 21825 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| JUDITH SUZANNE HANSON LIV TRUST | HANSON, JUDITH SUZANNE TTEE | PO BOX 8449 | BEND, OR 97708 | BEND | OR | 97708 |
| DRAPE, CHRISTOPHER & CHRISTINE ET AL | | 9423 58TH AVE S | SEATTLE, WA 98118-5526 | SEATTLE | WA | 98118-5526 |
| WALDEN, JENNIFER EGUSA & NOAH | | 61885 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 |
| SOMERSET NORTHWEST LLC | | 9 NW 15TH ST | BEND, OR 97703 | BEND | OR | 97703 |
| CULLY, DEANNA E | | 61867 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 |
| ROBERT COLE REV TRUST ET AL | COLE, ROBERT & KAREN TTEES | 61865 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 |
| CASCADE LLC | | 6865 FAIRVIEW RD #C | CHARLOTTE, NC 28210 | CHARLOTTE | NC | 28210 |
| ORTIZ, RAMIRO FERNANDO ET AL | | 61849 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 |
| JACOB, SCOTT J & JESSICA L | | 61880 WALTER CT | BEND, OR 97702 | BEND | OR | 97702 |
| FAGEN, CHERRI L & NICHOLAS J | | 61860 WALTER CT | BEND, OR 97702 | BEND | OR | 97702 |
| SCHLOER,WALTER C JR & HARRIETT H | | 61835 WALTER CT | BEND, OR 97702 | BEND | OR | 97702 |
| DAVENPORT, JAY C | | 61862 DOBBIN RD | BEND, OR 97702 | BEND | OR | 97702 |
| BERGSETTER LIV TRUST | BERGSETTER, JOHN E & JUNE E TTEES | 61858 DOBBIN RD | BEND, OR 97702 | BEND | OR | 97702 |
| ALAN G WEDEL LIVING TRUST | WEDEL, ALAN G TTEE | 61852 DOBBIN RD | BEND, OR 97702 | BEND | OR | 97702 |
| HILL,HELEN L | | 61806 WARD RD | BEND, OR 97701 | BEND | OR | 97701 |
| LESLEY & CAROLYN ROBBINS FAMILY TRUST | ROBBINS, LESLEY LINN TTEE ET AL | 61801 WICKIUP RD | BEND, OR 97702 | BEND | OR | 97702 |
| CONNERS, THOMAS EDWARD & DEBRA ANNA | | 61794 WARD RD | BEND, OR 97702 | BEND | OR | 97702 |
| STONE, JEFFREY M & ELIESCHA P | | 61784 WARD RD | BEND, OR 97702 | BEND | OR | 97702 |
| MCCANCE, ANN MARIE | | 61750 WARD RD | BEND, OR 97702 | BEND | OR | 97702 |
| ANGELO & DINA LICITRA REV FAM TR | LICITRA, ANGELO TTEE ET AL | 61781 ARROW AVE | BEND, OR 97702 | BEND | OR | 97702 |
| TOWILL, ELIZABETH K | | 61780 ARROW AVE | BEND, OR 97702 | BEND | OR | 97702 |
| MOLZAN,RUDY H & MARGARET | | 61775 TOMAHAWK ST | BEND, OR 97702 | BEND | OR | 97702 |
| JAMES & PAMELA RISTOFF TRUST | RISTOFF, JAMES J & PAMELA L TRUSTEES | 61774 TOMAHAWK ST | BEND, OR 97702 | BEND | OR | 97702 |
| ROBBINS, LESLIE LINN ET AL | | 61801 WICKIUP | BEND, OR 97702 | BEND | OR | 97702 |
| GOSS & COLLINS LIVING TRUST | GOSS, CHARLES J TTEE ETAL | 61803 WICKIUP RD | BEND, OR 97702 | BEND | OR | 97702 |
| MURPHY,PAUL G & MARTHA MARIE | | 61806 WICKIUP RD | BEND, OR 97702 | BEND | OR | 97702 |
| GAMBLE, KEVIN J & MARY C | | 61635 GOSNEY RD | BEND, OR 97702 | BEND | OR | 97702 |
| KEVIN M BANEY TESTAMENTARY TRUST | BANEY, CURTIS A TTEE | 475 NE BELLEVUE DR #210 | BEND, OR 97701 | BEND | OR | 97701 |
| CENTRAL OREGON IRRIGATION DISTRICT | | 1055 SW LAKE CT | REDMOND, OR 97756 | REDMOND | OR | 97756 |
| JULIE ROSE VAN EPPS TRUST ET AL | VAN EPPS JULIE R TTEE ET AL | 22075 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| LORETTA ANN HADLEY LIV TRUST | HADLEY, LORETTA ANN TTEE | 22015 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| TROWBRIDGE, RYAN L & BRENDA S | | 22185 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| ALLAN BOSS REVOCABLE TRUST | BOSS, ALLAN S TTEE | 21975 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| WALTERS, CONRAD | | 61795 TEAL RD | BEND, OR 97701 | BEND | OR | 97701 |
| ANGELO & DINA LICITRA REV FAM TR ET AL | LICITRA, ANGELO TTEE ET AL | 61781 ARROW AVE | BEND, OR 97702 | BEND | OR | 97702 |
| LICITRA, TONY & LICITRA, ROBERTA | | 61975 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 |
| SCOTT, TONI MARIE & SCOTT, RUSSELL | | 61975 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 |
| TURNER, JANICE M | | 22195 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| GILLAM REBER LIVING TRUST | GILLAM, JASON & REBER, JULIE TTEES | 22225 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 |
| BEND METRO PARK & REC DISTRICT | | 799 SW COLUMBIA ST | BEND, OR 97702-3218 | BEND | OR | 97702-3218 |
| RODNEY C & CYNTHIA I GIBSON REV TRUST | GIBSON, RODNEY C & CYNTHIA I TTEES | 61595 GOSNEY RD | BEND, OR 97702 | BEND | OR | 97702 |
| STEPHEN,ROBERT & DIANE | | 61575 GOSNEY RD | BEND, OR 97702 | BEND | OR | 97702 |

| Owner | Agent | Mailing Address | Mailing City/State/Zip | Mailing City | Mailing State | Mailing Zip | # of owners (SHPO count) |
|--|--------------------------------------|-------------------------|------------------------|--------------|---------------|-------------|--|
| ALLAN BOSS REVOCABLE TRUST | BOSS, ALLAN S TTEE | 21975 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 | 1 |
| GRUND FAMILY REVOCABLE LIVING TRUST | GRUND, GARY A & SUZANNE TTEES | 21925 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 | 1 |
| MCDONALD, JENNIFER J | | 21825 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 | 1 |
| JUDITH SUZANNE HANSON LIV TRUST | HANSON, JUDITH SUZANNE TTEE | PO BOX 8449 | BEND, OR 97708 | BEND | OR | 97708 | 1 |
| DRAPE, CHRISTOPHER & CHRISTINE ET AL | | 9423 58TH AVE S | SEATTLE, WA 98118-5526 | SEATTLE | WA | 98118-5526 | 4 |
| WALDEN, JENNIFER EGUSA & NOAH | | 61885 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 | 2 |
| SOMERSET NORTHWEST LLC | | 9 NW 15TH ST | BEND, OR 97703 | BEND | OR | 97703 | 1 |
| CULLY, DEANNA E | | 61867 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 | 1 |
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| HILL,HELEN L | | 61806 WARD RD | BEND, OR 97701 | BEND | OR | 97701 | 1 |
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| ALLAN BOSS REVOCABLE TRUST | BOSS, ALLAN S TTEE | 21975 BEAR CREEK RD | BEND, OR 97701 | BEND | OR | 97701 | 0 - same owner listed above |
| WALTERS, CONRAD | | 61795 TEAL RD | BEND, OR 97701 | BEND | OR | 97701 | 1 |
| ANGELO & DINA LICITRA REV FAM TR ET AL | LICITRA, ANGELO TTEE ET AL | 61781 ARROW AVE | BEND, OR 97702 | BEND | OR | 97702 | 2 - three actual owners, Licitra Trust votes a |
| LICITRA, TONY & LICITRA, ROBERTA | | 61975 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 | 2 |
| SCOTT, TONI MARIE & SCOTT, RUSSELL | | 61975 SOMERSET DR | BEND, OR 97702 | BEND | OR | 97702 | 2 |
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| STEPHEN,ROBERT & DIANE | | 61575 GOSNEY RD | BEND, OR 97702 | BEND | OR | 97702 | 2 |

Total = 65

bove.



Christine Curran, Deputy State Historic Preservation Officer
Oregon State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

Dear Ms. Curran,

Thank you for the opportunity to comment on the nomination of the Ward Road to Gosney Road segment of the Central Oregon Canal as a historic district on the National Register of Historic Places.

The Board of County Commissioners (Board) has reviewed and considered the nomination, various comments from property owners, the Central Oregon Irrigation District (COID), stakeholder organizations and the Deschutes County Historic Landmarks Commission. We recognize the historic value of irrigation canal systems in the settlement and development of Central Oregon, as well as the scenic and quality of life benefits canals provide to our residents and communities.

However, there a number of other issues to thoroughly analyze and understand while simultaneously determining the historic value of the Central Oregon Canal. These issues include, but are not limited to the canal's role in delivering water to farms, regional water conservation, wildlife habitat enhancement, and ongoing maintenance to the facility.

As elected leaders we are responsible for making policy decisions that are broad in scope and impact our entire community. While we promote historic preservation in Deschutes County, we also promote efficient use of our utility infrastructure. As such, we are concerned that listing the Central Oregon Canal in the National Register will create difficulties in managing the canal efficiently, in addition to hindering regional water conservation efforts. If the canal is formally listed, we ask that conditions be provided to allow for efficient purveyance of the canal's irrigation water.

Thank you for your consideration.

The Deschutes County Board of Commissioners

Anthony DeBone, Chair

Philip G. Henderson, Vice Chair



Board of County Commissioners

PO Box 6005, Bend, OR 97708-6005

TEL (541) 388-6570 • FAX (541) 385-3202

www.deschutes.org

Tammy Baney

Anthony DeBone

Philip Henderson

October 17, 2017

Jason Allen
Oregon State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

Dear Mr. Allen:

Thank you for the opportunity to comment on the nomination of the Ward Road to Gosney Road segment of the Central Oregon Canal as a historic district on the National Register of Historic Places.

The Board of County Commissioners (Board) has reviewed and considered the nomination, comments from property owners, the Central Oregon Irrigation District (COID), and stakeholder organizations, and toured the canal. We recognize the historic value of irrigation canal systems in the settlement of Central Oregon, as well as the scenic, wildlife habitat, and quality of life benefits canals provide to our residents and communities.

However, we recommend the proposed Ward-to-Gosney Road segment of the Central Oregon Canal not be listed on the National Register of Historic Places at this time for the following reasons:

- A majority of our Deschutes County Historic Landmarks Commissioners find this segment of the Central Oregon Canal lacks historic integrity and significance sufficient to warrant the listing. They detailed these and other concerns in a letter to your office that was sent on Oct. 12.
- Previously, COID hired experts to conduct a historic study of the district's entire irrigation canal system, including the subject segment, as part of a Multiple Property Document (MPD) process. Based on the MPD, COID nominated two canal segments for listing on the National Register of Historic Places, but did not nominate this segment of the canal.
- Irrigation districts manage canals as water delivery systems to serve their patrons, conserve water, and increase instream flows in the Deschutes River. Historic designations may impose regulatory burdens, barriers, and costs in performing these essential functions, which provide public and private benefits. In this case, with so much of the irrigation system downstream in terms of the number of acres and patrons served, a listing would substantially degrade the District's ability to serve their needs if there was a break or leak in the canal that needed to be fixed.

Thank you for your consideration.


Tammy Baney, Chair


Anthony DeBone, Vice Chair


Philip G. Henderson, Commissioner



Christine Curran, Deputy State Historic Preservation Officer
Oregon State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

Dear Ms. Curran,

Thank you for the opportunity to comment on the nomination of the Ward Road to Gosney Road segment of the Central Oregon Canal as a historic district on the National Register of Historic Places.

We have reviewed and considered the nomination, in addition to letters from the Historic Landmark Commission, Central Oregon Irrigation District (COID), and the nomination preparer. We are aware of the collaboration between the parties involved in the nomination process and are pleased to hear there is agreement on how to proceed.

We recognize the historic value of irrigation canal systems in the settlement and development of Central Oregon, as well as the scenic benefits canals provide to our communities. Historic landmarks and districts, such as the proposed Central Oregon Canal, should establish adequate public access so residents and visitors can learn about the region's history. As such, we support continued discussions between property owners along the canal, COID, and the Bend Park and Recreation District.

As elected leaders, we are responsible for making policy decisions that are broad in scope and impact our entire community. Through the National Register of Historic Places review process we rely on the Historic Landmark Commission, as well as our constituents that have the most interest or are the most impacted by a national nomination. Ultimately, we support the revised nomination of the Ward Road to Gosney Road section of the Central Oregon Canal because the property owners along the canal and COID are now in agreement on proceeding with it under the Multiple Property Document.

Thank you for your consideration.

Deschutes County Board of Commissioners

Anthony DeBone, Chair

Philip G. Henderson, Vice Chair

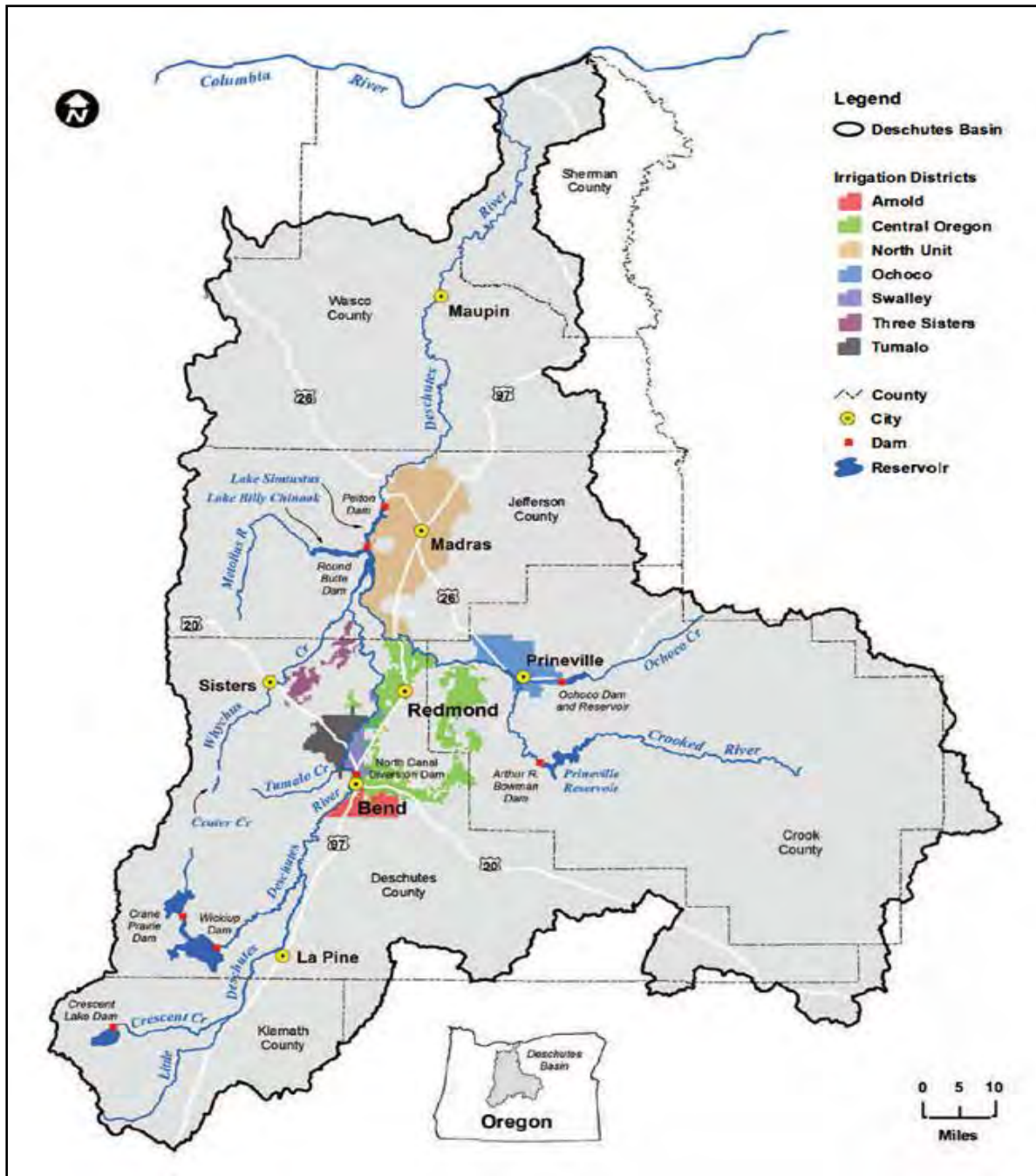
Tammy Baney, Commissioner

27-QUESTION 8TH GRADE CENTRAL OREGON GEOGRAPHY TEST

HOW WELL DO YOU KNOW the IRRIGATION DISTRICTS and CANALS?

The answers are at the end.

Source of image: Deschutes Basin Board of Control Website, April 17, 2018.



1. Which reservoirs, rivers, and streams are the sources of irrigation water for canals in Deschutes County? Circle them.
 - A. Crane Prairie Reservoir
 - B. Crescent Lake
 - C. Crooked River
 - D. Deschutes River
 - E. Dry River
 - F. Little Deschutes River
 - G. Metolius River
 - H. Tumalo Creek
 - I. Whychus Creek
 - J. Wickiup Reservoir

2. According to the United States Geological Survey, how many canals are in the tri-county area of the Upper Deschutes Basin, that generally includes Deschutes, Jefferson, and Crook Counties?
 - A. 10
 - B. 17
 - C. 38

3. Locate the following major irrigation canals in Deschutes County on the preceding map of the irrigation districts. Hint: Some districts operate and maintain more than one canal. Write the letter in the general location of each canal.
 - A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Feed Canal

4. Which was the first canal to be constructed and which was the last to be constructed? Write "First" and "Last" beside them.
 - A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Feed Canal

5. Which of these main canals is the shortest, and which is the longest? Write "Shortest" and Longest" beside them.
- A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Canal
6. Which irrigation district constructed the canal or canals that it operates and maintains today?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
 - G. All of them.
 - H. None of them.
7. Which irrigation district serves the most water users or patrons?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
8. Which irrigation district irrigates the most acres?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
9. Which irrigation district has the most staff members?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit District
 - D. Swalley Irrigation District
 - E. Three Sisters District
 - F. Tumalo Irrigation District

10. Which irrigation district has not undertaken a piping project?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
11. Which district has returned the most water to the Deschutes River through its conservation and piping programs, by diverting less water from the river?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
12. How would you characterize the irrigation districts?
- A. For-profit water and power companies.
 - B. For-profit water utilities.
 - C. Not-for-profit, publicly-owned water and power utilities.
 - D. Quasi-municipal corporations, that are run by a board of directors that is elected by the patrons with water rights. They must have meetings and records open to the public. They are supported primarily by assessments of their patrons for irrigation water and income from selling electricity generated by hydropower.
13. Where does the revenue produced by the hydropower plants on the canals go?
- A. To the State of Oregon to reduce income taxes.
 - B. To Deschutes County to reduce property taxes.
 - C. To the Federal Government to support clean energy projects.
 - D. To PGE and Pacific Power to reduce the cost of electricity.
 - E. To the Irrigation Districts to cover operating costs, pay staff salaries, pay for consultants, and reduce assessments for patrons for their water.
14. According to the Mission Statements of the Irrigation Districts, what is their primary responsibility?
- A. Deliver water to district patrons by managing and maintaining the system in the most efficient and cost-effective manner possible.
 - B. Reduce the amount of irrigation water diverted from the rivers and streams.
 - C. Increase income from hydropower to reduce the cost of irrigation water to those who hold water rights, and have the district become profitable.
15. Can patrons lose their water rights, and can new parties buy water rights today?
- A. Yes
 - B. No

16. Parties with water rights must use them for beneficial uses as defined by the State of Oregon a minimum of 1 year out of every 5 consecutive years. Which of the following uses are not beneficial uses or are not allowed?
- A. Domestic uses for drinking water, showers and laundry.
 - B. Irrigating landscaping and ponds at an urban trailer park.
 - C. Irrigating urban yards and lawns on 1/5 acre lots.
 - D. Irrigating lawns in a cemetery.
 - E. Irrigating playgrounds at schools.
 - F. Irrigating a pasture less than 1 acre in size on a hobby farm.
 - G. Irrigating farm crops such as hay or pumpkins.
 - H. Filling recreational and wildlife reservoirs such as the 6-acre Mayfield Pond, 12-acre Reynolds Pond, 7.7-acre Zell Pond, Houston Lake and Little Huston Lake.
 - I. Irrigating landscaping at Bend Airport.
 - J. Irrigating private and municipal golf courses.
 - K. Irrigating weeds and native plants.
 - L. Filling irrigation and stock ponds year around.
17. Which three canals does Central Oregon Irrigation District operate and maintain?
- A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Feed Canal
18. The Central Oregon Irrigation District owns the three canals and can allow the development of public trails along them.
- True
 - False
19. While the Central Oregon Irrigation District owns some parcels crossed by the canals that can be found using an owner search on the County Assessor's DIAL, nearly all of the parcels crossed by the canals are in private ownership and COID has an easement to operate and maintain a canal across those parcels for irrigation purposes.
- True
 - False
20. Is any of the 22-mile long 1904 Pilot Butte main canal designated as a historic resource and protected from major alterations and demolition?
- A. No.
 - B. Yes, 1 segments is protected.
 - C. Yes, 2 segments are protected.

21. Is any of the 47-mile long 1905-1912 Central Oregon Canal designated as a historic resource and protected from major alterations and demolition?
- A. No.
 - B. Yes. The site of the wood stave pipe that was replaced with a modern pipe by COID in 1978.
22. Central Oregon Irrigation District owns both the canal and the real property (land) in the 3,000 ft.-long segment of the Central Oregon Canal that it recently piped west of the Brookwood Bridge in Bend. That is why it could sign an agreement with Bend Park & Recreation District to allow a public trail in that segment of the canal.
- A. True
 - B. False
23. The North Canal, Pilot Butte Canal and Central Oregon Canal were built by:
- A. The federal government.
 - B. The State of Oregon.
 - C. Private, for profit, development companies owned by wealthy, well-connected, politically-savvy investors from the Midwest and east coast.
 - D. The settlers and property owners cooperatively.
24. When was the Central Oregon Irrigation District formed by a court decree to be a quasi-municipal corporation in the State of Oregon, to operate and maintain the canals and to take over the assets of the private Central Oregon Irrigation Company?
- A. 1905
 - B. 1911
 - C. 1921
 - D. 1948
25. According to records at the Oregon Dept of Water Resources, since 2009, piping 4.5 miles of the Pilot Butte Canal and adding a hydro plant at Juniper Ridge has resulted in how much of the 400 cubic feet per second of water being left in the Deschutes River?
- A. 10 cfs
 - B. 100 cfs
 - C. None. On average, 450 cubic feet per second are now diverted from the river during the peak irrigation season. Hydropower takes a consistent amount of water that cannot be reduced through conservation efforts downstream.
26. A unique feature of the proposed historic district between Ward Road and Gosney Road is that the canal crosses tax lot 1813060001700, a 79.6- acre parcel owned by the Bend Metro Park & Recreation District. The public will have access to see and experience the historic canal year around, with and without water flowing in it.
- A. True
 - B. False

27. Which of the following canals have segments that have been set aside for preservation for future residents and future generations?

- A. Arnold Canal
- B. Bend Feed Canal
- C. Central Oregon Canal
- D. North Canal
- E. North Unit Canal
- F. Pilot Butte Canal
- G. Plainview Ditch
- H. Swalley Canal
- I. Three Sisters Irrigation District Main Canal
- J. Tumalo Feed Canal

ANSWERS

1. All except for **D. Dry River** at Alfalfa and Powell Butte and **F. Metolius River**. (USGS)
2. **C. 38**
3. The Plainview Ditch and the Three Sisters Irrigation District Main Canal are in the Three Sisters Irrigation District.
The Pilot Butte in Canal in COID flows from the Brinson Blvd. Bridge in Bend, through Deschutes Junction, through Redmond, and east toward Smith Rock.
The Central Oregon Canal in COID begins in southern Bend and flows east to Alfalfa and north to Powell Butte and then to the Crooked River.
The North Canal in COID begins at the Deschutes River near the Riverhouse Convention Center, flows through a commercial and industrial portion of Bend, and connects to the Pilot Butte Canal at the Brinson Blvd. Bridge.
The North Unit Canal begins near the Riverhouse Convention Center and extends east near the Bend Pine Nursery Park and turns north and crosses the Crooked River to Madras. All of its water is used in Jefferson County.
The Tumalo Feed Canal and the Bend Feed Canal are in the Tumalo Irrigation District.
4. First: **I.** Three Sisters Canal, 1891.
Last: **E.** North Unit Irrigation District. 1938-1949.
5. Shortest: **D.** The 1912 North Canal that is 1,613 feet long.
Longest: **E.** The North Unit Canal, completed in 1949 is about 65 miles long.
6. **H. None.** They all were constructed through cooperative organizations of settlers, for-profit private enterprises or by the Federal Government. The districts came later.
7. Arnold Irrigation District: 643 patrons
Central Oregon Irrigation District: 3,600 patrons
North Unit Irrigation District: 2,265 patrons
Swalley Irrigation District: 668 patrons
Three Sisters Irrigation District: 402 patrons
Tumalo Irrigation District: 667 patrons

8. Arnold Irrigation District: 4,384 acres
Central Oregon Irrigation District: approximately 44,500
North Unit Irrigation District: 59,000 acres
Swalley Irrigation District: 4,333 acres
Three Sisters Irrigation District: 7,572 acres
Tumalo Irrigation District: 7,400 acres
9. Arnold Irrigation District: 5 people
Central Oregon Irrigation District: **31 people**
North Unit Irrigation District: 26 people
Swalley Irrigation District: 4 people
Three Sisters Irrigation District: 6 people
Tumalo Irrigation District: 8 people
10. A. Arnold Irrigation District.
11. D. Swalley Irrigation District
12. D. Quasi-municipal corporations.
13. E. To the Irrigation Districts.
14. A.
15. A. Yes
16. A. and K. Irrigation water cannot be used for domestic needs or to water weeds or native plants.
17. C. Central Oregon Canal, D. North Canal, and F. Pilot Butte Canal.
18. False. The canals are owned by the underlying real property (land) owners. Easements for public trails on the “ditch rider roads” beside the canals must be given by the 3,600 real property owners of the land that the canals cross. COID’s easements to operate and maintain the canals do not extend below the existing surface of the canals. New easements with each property owner are necessary to excavate in the canal bed or allow public trails along the canal.
19. True. See above explanation.
20. C. Two segments of the Pilot Butte Canal are listed on the National Register of Historic Places and are protected by local historic preservation codes. One is in Redmond and one is between Yeoman Road and Cooley Road at the northeast edge of Bend.
21. A. No. A segment of the canal at Brasada Ranch was nominated but was not listed on the National Register of Historic Places.

22. True.
23. C. The Pilot Butte Development Company under Alexander Drake began the Pilot Butte Canal project in 1900. It sold its assets and contracts to the Deschutes irrigation and Power Company in 1904. In 1910, the Central Oregon Irrigation Company bought the project and finished the Central Oregon Canal. It owned the company until 1921.
24. C. 1921.
25. C. The average diversion of water from the Deschutes River to the Pilot Butte Canal during the summer between 2009 to 2016 increased from 400 cfs to 450 cfs.
26. A. True.
27. F. The Pilot Butte Canal is the only canal with designated historic resources.

SOURCES and for FURTHER STUDY:

1. Deschutes Basin Board of Control Website: <http://dbbcirrigation.com/>
2. Arnold Irrigation District: <http://www.arnoldirrigationdistrict.com/>
3. Central Oregon Irrigation District: <http://coid.org/>
4. North Unit Irrigation District: <http://www.northunitid.com/>
5. Swalley Irrigation District: <https://www.swalley.com/>
6. Three Sisters Irrigation District: <http://tsidweb.org/>
7. Tumalo Irrigation District: <http://tumalo.org/>
8. Oregon Water Resources Dept.: <http://www.oregon.gov/owrd/Pages/sw/index.aspx>
9. Pilot Butte Canal Historic District in Downtown Redmond NRHP nomination: http://www.oregon.gov/oprd/HCD/NATREG/docs/Redmond%20Downtown%20Historic%20District/OR_DeschutesCo_RedmondDowntownHD_SACHP.pdf
10. Pilot Butte Canal Historic District (Yeoman Road-Cooley Road) NRHP nomination: http://www.oregon.gov/oprd/HCD/NATREG/docs/Central%20Oregon%20Canal%20Historic%20District/COCHD_SACHP%20Draft.pdf
11. USGS Ground-Water Hydrology of the Upper Deschutes Basin and Groundwater Studies. https://or.water.usgs.gov/projs_dir/deschutes_gw/pubs.html
https://or.water.usgs.gov/projs_dir/deschutes_gw/index.html
12. Resources link on the Deschutes River Conservancy website: <http://www.deschutesriver.org/resources/reports/>
13. Deschutes County Assessor's Office DIAL: <https://dial.deschutes.org/>
14. Michael Hall, *Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, a Historic Context Statement, 1994:* <https://digital.osl.state.or.us/islandora/object/osl:11567>
15. Nomination of the Ward Road to Gosney Road Segment of the Central Oregon Canal to the National Register of Historic Places (NRHP): http://www.oregon.gov/oprd/HCD/NATREG/docs/Central%20Oregon%20Canal%20Historic%20District/COCHD_SACHP%20Draft.pdf

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61880 Walter Ct. Bend OR 97703, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:

Scott Jacob

4-12-18

Date

Printed Name:

Scott Jacob

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address:

61880 Walter Ct. Bend OR 97703
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61880 Walter Ct. Bend OR 97002, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  4/12/19 Date

Printed Name: Jessica C. Jacobs

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61880 Walter Ct. Bend OR 97002
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61995 Somerset Dr Bend OR 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Russell Scott 1/11/18
Date

Printed Name: Russell Scott

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61995 Somerset Dr Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22195 Bear Creek Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Janice M. Turner 9-9-17
Date

Printed Name: Janice M. Turner

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22195 Bear Creek Rd Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61806 Wickiup Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Marta Marie Murphy _____ Date

Printed Name: Marta Marie Murphy _____

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61771 Arrow Ave, Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61852 Dobbin Road, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9-18-2017
Date

Printed Name: Alan Geoffrey Wedel

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61852 Dobbin Rd, Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61975 Somerset DR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Tony Licitera 9/16/17
Date

Printed Name: Tony Licitera

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61975 Somerset Blvd OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61975 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Roberto Licitra 9/16/17
Date

Printed Name: Roberto Licitra

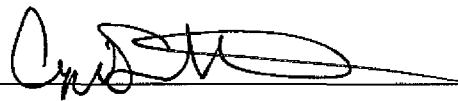
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61975 Somerset Dr Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61877 Somerset Dr., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9-21-17
Date

Printed Name: April Streeter


Somerset Northwest LLC
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 9 NW 15th St. Bend OR 97703
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61635 Gosney Rd Bend OR which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/28/2017
Date

Printed Name: Kevin Gamble

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61635 Gosney Rd Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61635 Gosney Rd. Bend OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: M. Gamble 9-28-17
Date

Printed Name: Mary Gamble

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61635 Gosney Rd Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61781 Arrow Ave. BEND, OR., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: *Angelo Licitra* 9/22/17
Dina M. Licitra Date

Printed Name: ANGELO LICITRA
DINA M. LICITRA 9-22-17

ANGELO + DINA LICITRA REV PART TR
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61781 Arrow Ave. BEND, OR. 97902
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61866 WARD RD Bend OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: John Hill 9-23-17
Date

Printed Name: John Hill

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61866 WARD RD Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61955 SOMERSET DR. BEND, OR., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Angelo Licitra 9/22/17
Dina M. Licitra Date

Printed Name: ANGELO LICITRA
DINA M. LICITRA 9-22-17

ANGELO + DINA LICITRA REV. TR ET AL.
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61781 ARROW AVE. BEND, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21885 BEAR CREEK RD., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Judith Suzanne Hanson 10/7/17
Date

Printed Name: JUDITH SUZANNE HANSON

JUDITH SUZANNE HANSON LIVING TRUST
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: P.O. Box 8449, BEND, OR, 97708
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22075 Bear Creek Rd Bend OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Edna Louise Wagner 9/19/17
Trustee, Wagner Trust Agreement 5/8/96 Date

Printed Name: Edna Louise Wagner

Wagner Trust Agreement
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22075 Bear Creek Rd Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22075 Bear Creek Rd Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Frank J Wagner 9-19-17
Trustee, Wagner Trust Agreement 5/8/96 Date

Printed Name: Frank J Wagner

Wagner Trust Agreement
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22075 Bear Creek Rd Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22075 Bear Creek Rd Bend, Oregon which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Julie Rose Van Epps trustee, Julie Rose Van Epps Trust 9/18/17
Date

Printed Name: Julie R. Van Epps

Julie Rose Van Epps Trust
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22075 Bear Creek Rd Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61750 Ward Rd Bend, OR 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Ann McCance 10-8-17
Date

Printed Name: Ann McCance

Ann Marie McCance
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61750 Ward Rd Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61780 Arrow Avenue, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/29/17
Date

Printed Name: Elizabeth K. Towill

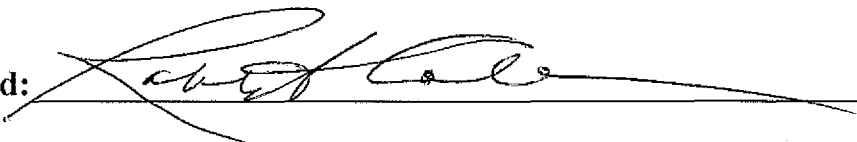
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61780 Arrow Avenue Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61865 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  10-7-2017
Date

Printed Name: Robert Cole

ROBERT Cole REVOCABLE TRUST /
Karen Cole REVOCABLE TRUST
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61865 Somerset Dr - Bend Or 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61865 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Patricia Karen Cole 10-7-2017
Date

Printed Name: PATRICIA KAREN COLE

Karen Cole Revocable Trust /
Robert Cole Revocable Trust
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61865 Somerset Dr Bend Or 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Tuesday, October 10, 2017 11:33 AM
To: ZELLER Tracy * OPRD
Subject: FW: Historical canal

Another for the public record. These will be sent to the SACHP, right?

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

-----Original Message-----

From: D J [<mailto:stealthturner@msn.com>]
Sent: Tuesday, October 10, 2017 8:11 AM
To: ALLEN Jason * OPRD
Cc: D J
Subject: Historical canal

Good morning Jason. Dave Turner here. It was nice to meet with you the other day and put a face to you. First of all I want you to know some of my feelings on the canal. I have had dealings in past with Coid and I can say from that I don't trust what they do or say. I myself do and mean what I say even if it cost me thousands of dollars which in one instance it did. When Coid says they own the land which canal is on that is a lie. My deed shows I own to middle of canal and actually a little on other side in one spot. Coid just has an easement to maintain that canal. To me it's goes a long way past maintaining it to putting in hydro electric plants. They have proposed 10 more in all. I myself wanted to do the very same thing for my power for my house years ago and they denied me. If you check usage of water when hydro plants was installed and before, the usage of water has been much greater when hydro is in use. That's one reason Coid wants to conserve the water but actually will be using the extra saved water to run the hydro. Don't be fooled on that idea of saving the water. Another point I would like to make about this canal issue is this. My property is in odfw wildlife habitat. We love all the wildlife in the area. If a least one area of the canal is not kept open than what happens to the wildlife? Coid nomination is a obsolete section that has no water going through it and is used for golf carts to access the other side of golf course. The only reason when Coid nominated that section is because it doesn't interfere with the piping project. Now how are future generations going to see history if you can't see it actually working. It's so much more educational to see something actually working rather than trying to understand it as would be Coid nomination. Another point is they are proposing to pipe over 400 miles of canal so the 3.5 miles we are asking to make historic is not even one percent of the total amount. One thing that I have heard that Coid spends 10% of its budget repairing our section of the canal for maintenance. Well in the almost 20 years I have lived here I have yet to see them repair anything on my property. Also the flume and the big holding area on my place is very unique. I was told by ditch rider that there were only two of those like that on whole canal system. It would be a shame to allow that to be destroyed. Everyone that comes to our place wants to look at that portion of the canal. I am sure you enjoyed that too. My last point is to say if the historic committee uses their best judgement on each nominee in my opinion the ward road wins hands down. It's like it was 100years ago and it doesn't have a golf cart running on it and it has the water in it as it should have to actually be historic. Please take a real look at this matter and consider ward road as the best example of a historic canal.
Sincerely. Dave and Janice Turner

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Thursday, October 12, 2017 8:04 AM
To: ZELLER Tracy * OPRD
Subject: FW: Please save the Ward to Gozne Rd Canal

I believe this is for the public record.

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Kristen Grund [<mailto:kristen.grund@gmail.com>]
Sent: Wednesday, October 11, 2017 7:58 PM
To: ALLEN Jason * OPRD
Subject: Please save the Ward to Gozne Rd Canal

Jason Allen,

I am a very long time Bend resident, born and raised on the east side of Bend on Bear Creek Rd. I am very saddened and disappointed that COIC has decided to pipe the entire 400 miles of canals running through Bend. These have been a source of water for farmers, established wildlife, and our history! I understand growth and progress, and that Bend will sadly never be what it was, but PLEASE do the right thing at least preserve the 3 miles of 400 for us that still plan on living here in beautiful Bend. If not for us, for our children and grandchildren.

Thanks for voting to preserve the canal.

Kristen Jokinen
37 year Bend Resident

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Tuesday, October 10, 2017 11:25 AM
To: ZELLER Tracy * OPRD
Subject: FW: COID canal

For the canal nomination record

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Bob Stephen [<mailto:robesteph3@gmail.com>]
Sent: Tuesday, October 10, 2017 10:16 AM
To: ALLEN Jason * OPRD
Subject: COID canal

Sir,

For 27 years, Diane Stephen and I have owned approximately 1600 feet of canal frontage in the section that is being looked at by your committee. During those 27 years, COID has undertaken exactly one maintenance procedure on this section of canal, and that procedure was to install a passive, clay barrier. This section is supposedly the worst section of their high maintenance area. To state otherwise, COID would be lying.

COID's latest advertising campaign also promotes themselves as being environmentally friendly. This is laughable from so many aspects. To give an example, COID owns a section of land adjacent to our land, and during the 27 years we have been here, COID has done exactly zero noxious, invasive weed control on their own land. Though the example land is not part of the proposed piping area, it is relevant as the piping will result in an initial explosion of invasive weeds. The weed problem takes place in any type of soil disturbance in Central Oregon, and the problem is minimized with control efforts. However, COID gives nothing but lip service to invasive weed control, and this can be seen in any area that COID has done construction.

The COID effort on screening the Deschutes River intake has been cited as an indicator of their environmental friendliness. This is again a joke as they have done nothing to improve their screening system unless forced to improve the screen. A person can still find large numbers of native, Deschutes River rainbow in the canal. Environmental friendliness is a joke when mentioned in the same breath as COID. The piping is supposedly an example of their environmental enhancements, but it is in reality a rip-off of federal tax dollars with minimal positive returns.

Thank you,
Robert and Diane Stephen

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Thursday, October 12, 2017 1:13 PM
To: ZELLER Tracy * OPRD
Subject: FW: Proposed Central Oregon Canal Historic District Statement of Support

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Roger Austin [mailto:rogaus@gmail.com]
Sent: Thursday, October 12, 2017 1:03 PM
To: ALLEN Jason * OPRD
Subject: Proposed Central Oregon Canal Historic District Statement of Support

To: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C Salem, OR 97301

Date: 10/9/17

With this statement, I certify that I, Roger R. Austin, am the sole or partial owner of the property located at 21805 Bear Creek Rd., Bend, OR 97701, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Legal Name(s) on Title:

Chris & Christine Drape
Roger & Frances Austin

Statement of support:

My personal history to Bend in central Oregon goes back to 1949 when I was 6 years old. We lived in the foothills below Awbrey Butte which was my summer playground. Often my mother would pack me a peanut and butter & jelly sandwich lunch and I would climb up on a water tower which overlooked the Cascades and the city below. An old abandoned flume circled the east side of the butte and my friends and I would walk along that stretch, imagining what it must have been like before any development. I would often ride my bike to the mill sites on the Deschutes River where a sea of logs would be fed up the conveyer chute to be milled into lumber. I spent much time with the draft horses that pulled the lumber on rail cars around the site. The sights and sounds are with me still. I loved the Deschutes River and Tumalo Creek and was familiar with the many

canals they fed. I logged many miles on my bike along the canals and market roads.

I returned to live in Bend permanently in 1981. I wanted my own children to experience what I had so enjoyed in childhood. We bought a home above Shevlin Park, a stones throw from the Tumalo Irrigation District canal. It brought back many wonderful memories of historic Bend and the surrounding area. We were disappointed when this section of the canal was piped. We mourned the loss of all the ponderosa pines along the canal that died shortly thereafter. We worried that our community well might run dry as it was very close to the canal and was over 900 ft. deep. Mostly I regretted the loss of yet another historic memory of my boyhood. So much had changed since I was a little boy. The Pilot Butte Inn was gone without even a marker or monument to its history. I was glad to see the old mill sites remembered by leaving a few of the historic buildings.

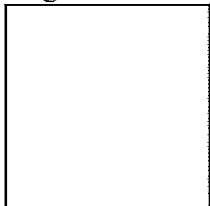
A year ago we moved to Bear Creek Rd. where the COID canal borders our property. Once again I felt close to my own history and those who came before me. I smile to think that we will preserve enough of that history for the benefit of generations to come. Every day I am reminded of what has always been the most wonderful features of historic Bend: our water sources, our mountains and beautiful sky above. I have a few keepsakes, including a room key to the Pilot Butte Inn, a few horseshoes from the old Shevlin Hixon Mill, and a brick from the Kenwood School gymnasium that was built when I was in first grade there and has now been lost to a roof collapse.

My hobby is repurposing old things and making them useful again. It matters to me that we value the old, even as we value the new. The past, present and future are interconnected in ways even beyond our scientific understanding. This includes everything from water molecules to photons to human beings. The uncertainty principle is a fact of life. There is much that we know. There is much more that we do not know. All of that to say that when it comes to managing water resources, not everything we do can guarantee a certain result when we consider all the factors involved. One of the mysteries of quantum physics is that even the act of observing can determine outcomes. I feel like an observer in this process of preserving some canal history. All of us have a stake in the outcome.

Preserving a small fraction of this historic canal seems prudent and a small price to pay without sacrificing the desired end result for all concerned. I believe that preserving this particular proposed section of the canal would be the best choice under consideration. It is close to the population center giving the most people a chance to appreciate its historic significance. It retains all the original infrastructure that is still functional and delivers water to land that has had minimal partitioning and is agricultural in nature. I choose to work my pasture with a vintage Ford 8N tractor, allowing me to appreciate my connection with the past and to enjoy it in the present. The canal is a part of my daily life through all the seasons. Even when empty and resting it reminds me of the seasons of life. It is therapeutic to be close to the land and to water. All of us in central Oregon are beneficiaries.

Respectfully submitted,

Roger R. Austin



ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Tuesday, October 17, 2017 8:14 AM
To: ZELLER Tracy * OPRD
Subject: FW: Central Oregon Canal Historic District Nomination
Attachments: Support letter for Central Oregon Canal nomination.pdf

For the record and SACHP

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Jennie McDonald [<mailto:mail4jennie@gmail.com>]
Sent: Monday, October 16, 2017 7:50 PM
To: ALLEN Jason * OPRD
Subject: Central Oregon Canal Historic District Nomination

Dear Mr. Walden,
Please accept the attached letter as my expression of support for the nomination of a portion of the Central Oregon Canal to the National Register of Historic Places. I very much appreciate this opportunity to provide input to your decision.

Thank you,
Jennifer McDonald
21825 Bear Creek Road
Bend, OR 97701
541-218-3154



Virus-free. www.avg.com

October 8, 2017

State Advisory Committee on Historic Preservation
725 Summer Street N.E., Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District

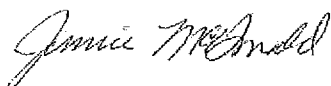
I write to express my full and heartfelt support for the Central Oregon Canal Historic District nomination to the National Register of Historic Places. I cannot imagine a more important or essential element of the history of Bend and Central Oregon than the availability, delivery and use of water to create a vibrant and sustainable community.

The nominated portion of the canal is remarkably representative of the purpose and success of irrigation in this area and a living, working demonstration of the power of irrigation to create and sustain a community. If you look up and out to the horizon, you can see the arid and formidable nature of the land. As you look nearer to the canal, with its laterals and diversions, head-gates and berms, the contrast is immediately evident. Green swaths and squares, ponds and sprinklers, productive fields and active farming operations demonstrate the transformation that the irrigation canal has brought to our area. At the center of it all, is the canal itself. The flow of water is unchanged since the canal was built, the same scene, same resource, same life changing power that began in 1905.

I am very much aware of the finite nature of water and the necessity of judicious and conservative use of this resource. I believe we need a balance between those conservation efforts and the preservation of such an important part of the area's history. The nomination of this section of the canal provides an opportunity to achieve that balance by preserving a section of the canal as it is now, and as it was at construction, demonstrating the very foundation of the settlement of Bend and surrounding communities. With Bend Parks and Recreation district owning a portion of this property, the public has a unique opportunity to see the working canal and distribution system, the rocky, turbulent nature of the ditch itself and the enormous effect that successful irrigation of the land has had on our homes and lives.

Thank you for your time as you consider this nomination. I recognize it is a complex and important question and I appreciate the opportunity to express my views on what I see as the irreplaceable nature of this section of the Central Oregon Canal.

Sincerely,



Jennifer McDonald
21825 Bear Creek Road
Bend, OR 97701
541-218-3154

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21825 Bear Creek Rd, Bend which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Jennifer McDonald 10-7-17
Date

Printed Name: Jennifer McDonald

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21825 Bear Creek Road, Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21925 BearCreek Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Gary A. Grand 10/7/17
Date

Printed Name: Gary A. Grand

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21925 BearCreek Rd Bend, Or 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21925 Bear Creek Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Suzanne Grund 10-7-17
Date

Printed Name: Suzanne Grund

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21925 Bear Creek Rd. Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21975 Bear Crk. Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Allan S. Boss Oct 9, 2017
Date

Printed Name: Allan S. Boss

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21975 Bear Crk. Rd. Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22015 Bear Creek Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:

Loretta A. Hadley

10-2-17
Date

Printed Name:

LORETTA A. HADLEY

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address:

22015 Bear Creek Rd Bond, Or 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22225 Bear Creek Rd; which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Julie Reber 10/7/17
Date

Printed Name: JULIE REBER

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22225 Bear Creek Rd Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 2225 Bear Creek Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Mary W. Reber 10-7-107
Date

Printed Name: MARY REBER

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 2225 Bear Creek Rd Road, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22225 Bear Creek Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  _____ Date 10-7-17

Printed Name: JASON GILLAM


Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22225 Bear Creek Rd Bend, OR 9770
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61595 Gosney rd Bend or 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  10-6-17
Date

Printed Name: Rodney C. Gibson

Rodney & Cynthia Gibson Trustees
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61595 Gosney rd Bend or 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61595 Gosney Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Cynthia I. Gibson 10-6-17
Date

Printed Name: Cynthia I. Gibson

Rodney & Cynthia Gibson, Trustees
Legal Name(s) or Title if Different from Above (Printed)

Mailing Address: 61595 Gosney Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61775 Tomhawk St, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Margaret Molzen 10/16/2017
Date

Printed Name: Margaret Molzen

Margaret Molzen
Legal Name(s) or Title if Different from Above (Printed)

Mailing Address: 61775 Tomhawk St Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61775 TOMAHAWK ST., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: R. H. Molzan 10/16/2017
Date

Printed Name: RUDY H. MOLZAN

RUDY H. MOLZAN
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61775 TOMAHAWKS, BEND, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61801 Wickiup Road, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Lesley L. Robbins _____ Date

Printed Name: Lesley Linn Robbins _____

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
lot 3, Block 51
Arrowhead Acres
2nd Addition

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61801 Wickiup Road, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Carolyn Sue Robbins 10/10/17
Date

Printed Name: Carolyn Sue Robbins

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road, Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
Lot 3, Block S
Arrowhead Acres
2nd Addition

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61835 Walter Court, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Harriett S. Schloer 10/17/17
Date

Printed Name: Harriett Schloer

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61835 Walter Ct., Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61835 WALTER CT, which is a private property located in the ^{Map of lot 181201 B 001200} proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Walter C. Schloer, Jr. 10/17/2007
Date

Printed Name: WALTER C SCHLOER, JR.

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: _____
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Due ASAP please
send in

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61867 Somerset Dr., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: _____

Deanna S

10/9/17

Date

Printed Name: _____

Deanna Cully

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: _____

61867 Somerset Dr. Bend, OR 97702

Street

City

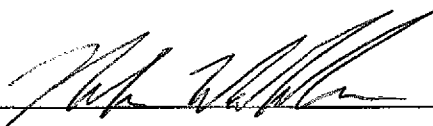
State

Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61885 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  8/8/17
Date

Printed Name: Noah Walden

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61885 Somerset Dr Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 621405 Somerset Dr., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Jennifer Walden 2/20/17
Date

Printed Name: Jennifer Walden

Jennifer Eguza Walden
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 621405 Somerset Dr. Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at Lot 3, Block 5 Arrowhead Acres 2nd Addition, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Lesley Linn Robbins Date _____

Printed Name: Lesley Linn Robbins

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
61801 Wickiup
RD

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at Lot 3, Block 5 Arrowhead Acres
2nd Addition, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Carolyn Sue Robbins 10/10/17
Date

Printed Name: Carolyn Sue Robbins

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road, Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
61801 Wickiup

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR 97702 which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places. This letter reverses my previous objection to the listing of the Central Oregon Canal Historic District in the National Register.

Jeffrey Michael Stone
Sign Full Legal Name Date

Jeffrey Michael Stone 11/2/17
Print Full Legal Name Date

N/A
Name on title (if different than signed name)

61784 Ward Rd Bend, OR 97702
Mailing Address - Street City State Zip

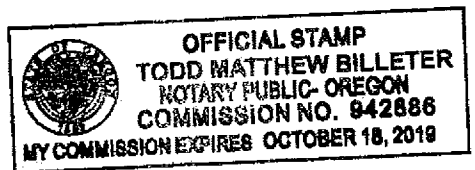
State of Oregon
County of Deschutes

Signed or attested before me on November 2 20 17 by

Todd Matthew Billeter
Notary Public - State of Oregon

My Commission expires: OCTOBER 18, 2019

Reversals to Objections must be notarized by a Notary Public to be valid.



To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places. This letter reverses my previous objection to the listing of the Central Oregon Canal Historic District in the National Register.

[Signature] _____ 11/2/17
Sign Full Legal Name Date

Eliesha Paige Stone _____ 11/2/17
Print Full Legal Name Date

N/A _____
Name on title (if different than signed name)

61784 Ward Rd Bend, OR 97702 _____
Mailing Address - Street City State Zip

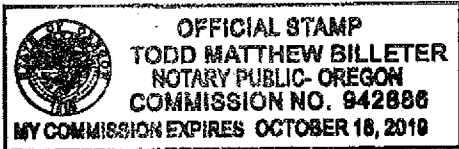
State of Oregon
County of Deschutes

Signed or attested before me on NOVEMBER 2 20 17 by

[Signature] _____
Notary Public - State of Oregon

My Commission expires: OCTOBER 18, 2019

Reversals to Objections must be notarized by a Notary Public to be valid.



Patricia Kliewer
60465 Sunridge Drive
Bend, OR 97702
541 617-0805'

April 23, 2018

Deschutes County Historic Landmarks Commission
PO Box 6005, Bend, OR 97708
c/o Zechariah Heck, Associate Planner
Zechariah.Heck@deschutes.org

Re: Nomination to the National Register of Historic Places, the Central Oregon Canal (Ward Road-Gosney Road Segment)

Dear Landmarks Commissioners,

Thank you for allowing me to testify last Monday at your hearing on the December 12, 2017 nomination of the segment of the Central Oregon Canal, between Ward Road and Gosney Road.

I was pleased that you called Ian Johnson and Jason Allen to ensure correct information was before you on your role and on the current version of the nomination, submitted in mid-December of last year. I was glad that Jason Allen told you that the nomination is a good one.

Information is power. I see you as colleagues and leaders in the historic preservation community in Central Oregon. I respect you and would never give you incorrect information, to the best of my ability.

Those who speak off the top of their heads with whatever sounds good, make up things and do not know what they are talking about, do not respect you.

When you carefully walk or ride along the segment of the canal with your nomination in hand, you can go through Section 7 and use it to guide you to notice the main canal and the structures in it and beside it. Do not just wonder what the facts are or who is telling the truth. See it with your own eyes and consider the sources of information and self-serving disrespectful and confusing but memorable sound bites some people are giving you.

MY REQUEST TO YOU

With careful study and after seeing the actual nominated segment, I ask you to do one of two responsible things:

1. Take a position of NO COMMENT. Other careful landmarks commissions in the state do take that option Ian Johnson told you about, when they have A. no first-hand knowledge of a resource, B. feel as if they are in a hot-potato political conversation that is not exclusively on historic preservation, C. they have confusing, conflicting information about a resource they cannot easily and clearly resolve by their own study and site visits, or D. the landmarks commissioners have a variety of opinions based on facts related to historic preservation. OR
2. Take a position of recommending the nomination be forwarded to the National Park Service, after review by SHPO staff and the Oregon SACHP.

There is no doubt of the historical significance of the segment of the Central Oregon Canal. Section 8 of the nomination provides a detailed history of the canal and its part in the founding and settlement of Bend, Centrallo, Redmond, Alfalfa and Powell Butte.

WHO OWNS IT ANYWAY?

County staff Nick Lelack corrected himself after protest from the property owners in the audience, but his gaff was a disappointment, since he has been working with the correct knowledge since 2013.

I trust that you are clear that COID owns one 13-acre parcel of land crossed by the nominated segment of the Central Oregon Canal historic district. The other tax lots are NOT owned by COID.

Also, COID owns only the portion of the Central Oregon Canal in the proposed district that flows across its own parcel. Here is a list of owners of tax lots crossed by the canal in the proposed historic district:

| TAX LOT NUMBERS, and Acres in tax lot. | NAMES OF CURRENT PROPERTY OWNERS PER DESCHUTES COUNTY ASSESSOR | SITUS PROPERTY ADDRESSES (This is the property address; It may not be the owners' mailing addresses) |
|---|---|---|
| 181201A000100 3.55 acres | Allan S. Boss | 21975 Bear Creek Road, Bend, OR 97701 |
| 181201A000200 51.09 acres | Suzanne and Gary Grund | 21925 Bear Creek Road, Bend, OR 97701 |
| 181201A000301 12.68 | Jennifer J. McDonald | 21825 Bear Creek Road, Bend, OR 97701 |
| 181201A000400 | Judith Suzanne Hanson Living Trust | 21885 Bear Creek Road, Bend, OR 97701 |

| | | |
|-----------------------------|---------------------------------------|---------------------------------------|
| 2.80 acres | | |
| 181201A000600 9.64 acres | Christine and Christopher Drape et al | 21805 Bear Creek Road, Bend, OR 97701 |
| 181201A000800 2.93 acres | Jennifer Egusa and Noah Walden | 61885 Somerset Drive, Bend, OR 97702 |
| 181201A000900 2.89 acres | Somerset Northwest LLC | 61877 Somerset Drive, Bend, OR 97702 |
| 181201A001000 2.62 acres | Patricia M. Fernald | 61867 Somerset Drive, Bend, OR 97702 |
| 181201A001100 2.87 acres | Robert Cole Revocable Trust et al | 61865 Somerset Drive, Bend, OR 97702 |
| 181201A001200 2.40 acres | Cascade LLC | 61855 Somerset Drive, Bend, OR 97702 |
| 181201A001300 | Kim D. and Misti D. Houston | 61849 Somerset Dr., OR 97702 |
| 181201B000900 | Jessica L. and Scott J. Jacob | 61880 Walter Court, Bene OR 97702 |
| 181201B001000 | Cherri L. and Nicholas J. Fagan | 61860 Walter Court, Bend OR 97702 |
| 181201B001200 1.84 acres | Harriett H. and Walter C. Schloer Jr. | 61835 Walter Court, Bend, OR 97702 |
| 181201B001300 3.02 acres | Jay C. Davenport | 61862 Dobbin Road., Bend, OR 97702 |
| 181201B001400 2.83 acres | Bergsetter Living Trust | 61858 Dobbin Road, Bend, OR 97702 |
| 181201B001600 1.60 acres | Alan G. Wedel | 61852 Dobbin Road, Bend, OR 97702 |
| 181201B001700 2.28 acres | Helen L. Hill | 61806 Ward Road, Bend, OR 97702 |
| 181201C000100 3.20 acres | Boese Glenney's Trust | No Situs Address |
| 181201C000200 | Debra and Thomas Edward Conners | 61794 Ward Road, Bend, OR 97702 |

| | | |
|------------------------------|--|--|
| 1.80 acres | | |
| 181201C000300 1.69 acres | Eliescha P. and Jeffrey M. Stone | 61784 Ward Road, Bend, OR 97702 |
| 181201C000400 6.96 acres | Ann Marie McCance | 61750 Ward Road, Bend, OR 97702 |
| 181201C001500 1.53 acres | Dina and Angelo Licitra Revocable Family Trust | 61781 Arrow Avenue, Bend, OR 97702 |
| 181201C001600 1.13 acres | Elizabeth K. Towill | 61780 Arrow Avenue, Bend, OR 97702 |
| 181201C002300 1.15 acres | Margaret and Rudy H. Molzan | 61775 Tomahawk Street, Bend, OR 97702 |
| 181201C002400 1.53 acres | Pamela and James Ristoff Trust | 617754 Tomahawk Street, Bend, OR 97702 |
| 181201C003300 1.31 acres | Leslie Linn Robbins et al | 61801 Wickiup Road, Bend, OR 97702 |
| 181201C003400 1.34 acres | Goss & Collins Living Trust | 61803 Wickiup Road, Bend, OR 97702 |
| 181201C003500 | Martha Marie and Paul G. Murphy | 61806 Wickiup Road, Bend 97702 |
| 1813050000702 19.55 acres | Mary C. and Kevin Gamble | 61635 Gosney Road, Bend, OR 97702 |
| 1813050001103 19.72 acres | Kevin M. Baney Testamentary Trust | 61670 Teal Road, Bend, OR 97702 |
| 1813050001200 13.14 acres | Central Oregon Irrigation District | No situs address |
| 1813060000700 | Julie Rose Van Epps Trust Et Al | 22075 Bear Creek Road, Bend OR 97701 |
| 181306000800 16.07 acres | Loretta Ann Hadley Living Trust | 22015 Bear Creek Road, Bend, OR 97701 |
| 1813060000900 3.51 acres | Brenda S. and Ryan L. Trowbridge | 22185 Bear Creek Road, Bend, OR 97701 |

| | | |
|------------------------------|---|---|
| 1813060000901 1.47 acres | Allan D. Boss | No situs address; Mailing: 21975 Bear Creek Road, Bend, OR 97701 |
| 1813060001000 25.66 acres | Conrad Walters | 61795 Teal Road, Bend, OR 97701 |
| 1813060001001 38.96 acres | Dina and Angleo Licitra Revocable Family Trust et al | 61955 Somerset Drive, Bend, OR 97702 |
| 1813060001002 32.31 acres | Roberta and Tony Licitra | 61975 Somerset Drive, Bend, OR 97702 |
| 1813060001003 20.00 acres | Toni Marie and Russell Scott | 61995 Somerset Drive, Bend, OR 97702 |
| 1813060001200 15.41 acres | Janice M. Turner (David) | 22195 Bear Creek Road, Bend, OR 97701 |
| 1813060001700 79.60 acres | Bend Metro Park & Recreation District | No situs address |
| 1813060001300 40.00 acres | Julie Reber and Jason Gillam | 22225 Bear Creek Road, Bend, OR 97701 |
| 1813080000300 7.54 acres | Cynthia I. and Rodney C Gibson | 61595 Gosney Road, Bend, OR 97702 |
| 1813080000400 11.30 acres | Diane and Robert Stephen | 61575 Gosney Road, Bend, OR 97702 |

Prior to the hearing last week, I sent you the spreadsheet provided to the County and to me of the legal owners of record by the Oregon SHPO, but it was not read by County staff at your meeting and I do not know if you got it.

SOME REBUTTAL OF COID's ORAL TESTIMONY

At your hearing, COID's attorney made the ludicrous and politically-based statement that the segment was never farmed, has no integrity and has no historical value. He went on to show us all that he has no clue what poured-in-place concrete and shotcrete are. One of you astutely caught that lack of understanding and asked him kindly about it. Well, Mr. Singer, I have to pull rank on you. My husband, a registered civil engineer for 45 years, and a former president of the Consulting Engineers of Oregon, helped greatly on this nomination and personally walked along the nominated stretch several times, and was in charge of the team who helped him perform a

systematic survey of it. He prepared Figure 21. He was an editor of the nomination. He offers the following information to Matt Singer:



This is a photo of Shotcrete or what he calls “air blown mortar”, stabilizing the banks on COID’s North Canal. Shotcrete is a relatively modern product.



This is a photo of historic poured-in-place concrete that was formed by lumber at Burt Chute. Concrete is an ancient product.

COID’s attorney made another off-base, ignorant statement that said that the segment nominated to the NRHPs does not need to be listed on the NRHP for it to have protections from major alterations and demolition, because it will be protected by the Section 106 process. That process is federal. I encourage you to visit the Oregon SHPO and the National Park Service web site and search Section 106. I am sure the Oregon SHPO staff would correct you right

away if you said it is for the on-going protection of historic resources. COID continually sees no value in Goal 1 in Oregon Land Use- Citizen Involvement. The purpose and process of the Section 106 is to have a process for SHPO staff and the National Park Service to review projects that are funded partially or entirely by federal funds or that need federal permits.

Here is the unedited information summary on the Oregon SHPO website.

Federal Law

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires every federal agency to "take into account" how its projects and expenditures will affect historic properties, which includes prehistoric and historic sites.

Links to the complete text of the National Historic Preservation Act of 1966 and the federal regulations for the administration of the Section 106 process are below. Both documents are provided by the Advisory Council on Historic Preservation, the federal advisory board responsible for the national administration of the 106 process.

[National Historic Preservation Act of 1966](#) - Federal law that created the National Register of Historic Places, Advisory Council on Historic Preservation, and the 106 review process.

[36 CFR Part 800](#) - Chapter of the "Code of Federal Regulations" that specifies what agencies and SHPOs are obligated to do under Section 106.

Section 106 Process Overview

The review process involves six steps:

Step One: The agency determines whether its proposed action is an undertaking. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval.

Step Two: The agency determines the Area of Potential Effect (APE) and decides on an appropriate survey methodology in consultation with the Oregon SHPO. The appropriate APE will vary from project to project and may include physical, visual, and auditory effects. Contact the SHPO before work begins to avoid unnecessary documentation or delay in completing the Section 106 process.

Agencies are required to contact and consult with the appropriate Native American Nation when an undertaking takes place on tribal lands or when an undertaking will affect Native American cultural sites. A list of contacts can be found on our website: [Native American Nation Contacts](#). Consultation with other interested parties such as Certified Local Governments is also encouraged.

Step Three: The agency determines if the resources within the APE are already listed in the National Register of Historic Places or may be eligible for listing. Eligible historic properties are those that are at least 50 years of age and maintain the majority of their historic features, called historic integrity. If a building meets these minimum qualifications it is considered eligible for the Register unless the agency can prove otherwise through further historical or archaeological studies. The eligibility of archaeological resources is based on careful recordation and evaluation according to professional standards. These guidelines are available here: [Guidelines for Conducting Field Archaeology in Oregon](#).

Step Four: The agency decides what the effect of the undertaking will be. A project is said to have "No Effect" if there are no eligible properties in the APE, or a historic property is not affected in anyway. An undertaking may have "No Adverse Effect" if the project does impact the historic property, but the effect is minimal. If the proposed work will diminish the features that qualify a resource for listing the project is said to have an "Adverse Effect."

Step Five: The agency or government consults with the State Historic Preservation Office (SHPO) on its

determinations by submitting proper documentation for the impacted properties.

Step Six: SHPO either concurs with the agency's determinations or does not concur.

If SHPO Concurs:

No Historic Property, No Effect, or No Adverse Effect: You are finished with the Section 106 Review consultation process.

- Adverse Effect: The agency enters into a "Memorandum of Agreement" (MOA) to mitigate the adverse effect or submits a research design to mitigate adverse effects through proper recovery. The MOA is signed by the agency and SHPO. The federal agency submits the MOA to the Advisory Council, along with a description of the project and the alternatives that were considered to mitigate the "adverse effect." The Advisory Council has 30 days to review the project and decide if it is willing to sign the MOA. Once the MOA is signed, the documentation should be completed and accepted by designated repositories before the project begins.

If SHPO Does Not Concur: Federal agencies may appeal to the Keeper of the National Register of Historic Places or the Advisory Council on Historic Preservation.

I only this morning received from Deschutes County the COID April 13 letter to you and the April 12, 2018 JRP report. I cannot in a few hours rebut it line by line, but I did note that JRP never visited the site. Even the first paragraph is erroneous and does not get the nomination timeline correct.

The JRP review is inadequate and did not include the civil engineering, hydrology or local canal history expertise as our team does. It resulted in beginner amateur mistakes such as Burt Chute being non-historic and made of shotcrete and the Bear Creek Ranch Bridge not being historic.

JRP had no way to have local history expertise as was used in the nomination. It also did not consult all of the historic maps, testimony and maps of water rights hearings prior to 1955, museum files, state archive files, UC Berkeley files, National Archive files, and historic photos that I did. Yes, I traveled to Salem to use the archives and to Washington DC to use its land entry case files and canal and Carey Act records.

Nor do the JRP historians have the information and personal photos and diaries that people such as Charles Redfield's descendants (two of whom are themselves civil engineers), original settler Dragan Mirch's two granddaughters (one who today owns land in the district and lives on it, and the other granddaughter lives in Corvallis) and members of the Torkelson and Bradetich families and other long-time residents told me. (See list of interviews in the Bibliography.) The report as far as I have reviewed it is entirely false.

Farmer Gary Grund has owned his ranch since the 1970s and told you, with some exasperation and shock at COID's unfounded assertions, that the report is ridiculous. He has collected photos of his one-lane bridge that is carefully described in the nomination, including how many boards have been replaced.

Quickly, some other obvious misstatements that Matt Singer said at the hearings are:

Rip-Rap vs. Stacked Rock

Here is a copy of a ca 1907 postcard of the newly-completed Pilot Butte (PB) Canal, in the Deschutes Historical Society collection. It shows the undisturbed rip-rap on the outside edge of the turn. This was very similar to the riprap on gentle slopes that was being laid by the same crews on the Central Oregon Canal in the nominated segment. However, the rip-rap rock in the proposed historic district was larger in size and the embankments are taller than the PB Canal in this photo. There was NO STACKED ROCK! Also, note that there is no rip-rap at all on the inside and straight edges in this location of the Pilot Butte Canal.



In the nominated segment there is rip rap in some locations as shown the photos and described in the narrative of the nomination. Most small rock has been moved by the force of 530 cfs of water downstream over 110 years, and that is to be expected. Larger rocks remain in place while small rock moved. f

Why would Matt Singer say at the hearing that all the historic rip-rap was stacked rock? Who knows? Perhaps he does not know what stacked rock is or that it would have only been applicable on vertical cuts, such as on the 1912 North Canal, as seen on JELD-WEN property.

However, there are a few feet of stacked rock in the vertical cut in nominated district, that are attributed to Dragan Mirich, who added them as a property owner when erosion became a problem in those locations. He was a stonecutter and mason. My team has walked or driven by all accessible portions of the Central Oregon Canal and the Pilot Butte Canal, and Mirich's stacked rock in the proposed district is the only stacked rock. Here is a photo of it. It is photo #19 of 20 in the nomination.



MPD

Last October the Deschutes County Board of County Commissioners wrote some of the reasons they were opposing the National Register nomination that is being promoted by 44 of the 45 owners of the Central Oregon Canal between Ward Road and Gosney Road. County staff continues to repeat erroneous information that was the basis of the comments, so I am taking my time to help with the facts. As long as the BOCC's opinions are based on facts, I accept them, even if they differ from my own conclusions. But, when they are based on profit-oriented sound bites and purposely-planted misunderstandings, the opinions and policies are not in anyone's best interest and will not stand the test of time.

The second reason the BOCC gives in its October 17, 2017 letter to Jason Allen is an interesting misunderstanding of the MPD called "Federal Irrigation Projects in Oregon 1901-1978". It says,

"Previously COID hired experts to conduct a historic study of the district's entire irrigation system including the subject segment, as part of a Multiple Property Document) MPD) process. Based on the MPD, COID nominated two canal segments for listing on the National Register of Historic Places but did not nominate this segment of the canal."

A version of this statement was repeated last Monday at your hearing. The statement assumes you do not now much about the topic. I hope you do.

RESPONSE to MPD

Based on the February 2014 Memorandum of Agreement on the "I" Lateral piping project at Zell pond and near Reynolds Pond in Alfalfa that was signed by the Oregon SHPO, COID, and the Bureau of Reclamation, COID hired a Seattle consultant ICF International to prepare a National

Register of Historic Places Multiple Property Documentation Form, MPD, of its system including the three canals: the Central Oregon Canal, the Pilot Butte Canal and the North Canal.

This was because the Oregon SHPO staff had been processing numerous Section 106 project evaluation forms for piping projects by several irrigation districts in Central Oregon including the Swalley ID, the Three Sisters ID, the Tumalo ID, North Unit ID, and the COID. As the Oregon SHPO was signing off on the projects with a finding of adverse effect, as the historic open main canals were piped, nothing was being identified for preservation for the future.

SHPO staff Ian Johnson and Jason Allen determined from the information in all of the Section 106 forms primarily filled out by archaeologists, that COID had the largest canals built by the Central Oregon Project, the most successful private enterprise under the Carey Act in the Northwest. Also, it is well known that some of the other districts such as Tumalo ID, Swalley ID and the Three Sisters ID had already piped the most significant portions of their canals. All of this was done with notice to the irrigation districts, but no public involvement and no notice to private property owners of the canals. I learned this while I was touring the nominated segment of the Pilot Butte Canal with Oregon SHPO staff Jason Allen and Ian Johnson.

The MOA was intended to ensure at least one representative, significant, historic, open, and functioning stretch of the 22-mile long 1904 Pilot Butte Canal and another of the 47-mile long 1905-1912 Central Oregon Canal would be identified and nominated for listing and thereby, preservation, so the public and future generations could see a historic working open canal, as constructed in the historic period. In return for that commitment by COID to preservation, the Oregon SHPO agreed to sign off on all future Section 106 forms for piping the remainder of the two canals.

But, things changed from the original motivation and the original signed MOA. The first change was that literally, the month before the MOA was signed, 100% of the 45 sets of property owners of the Pilot Butte Canal between Yeoman Road and Cooley Road hired Michael Hall and Pat Kliewer to apply to Deschutes County and the City of Bend to add their historically significant 1 mile stretch of the canal to the Comprehensive Plans as a locally designated historic resource. COID was not a property owner in that stretch.

Those two local applications, to the BOCC and to the City Council of Bend, were submitted in April 2014 with signatures, addresses and tax lot numbers of every property owner and over a hundred others who supported them. But, within hours, staff at the two CDDs claimed that all of the legal property owners of record were not the legal property owners of record, and they returned the applications and application fees to me unprocessed. Rather than waste money on fighting what was perceived as a long-held bias against the thousands of private property owners of the canals at city hall, the owners decided to have us do more research, add to the local applications, and to submit a nomination to the National Register of Historic Places where they expected to be treated fairly as the legitimate property owners.

Therefore, both COID's consultant and Michael Hall and I and a committee of five consisting of a civil engineer, architect, hydrogeologist, an investigative journalist and property owners were surveying the system at the same time.

We were methodically walking in and along the North Canal and Pilot Butte Canal, driving along them, and surveying the entire Pilot Butte Canal and the North Canal and the nominated segment of the PB canal in 180-foot increments and preparing the nomination. This was being

done at the same time as COID's Seattle consultant was surveying portions of the three canals from Google Earth and by COID truck, unbeknownst to each other.

None of the parties to the MOA has ever notified the owners of the COID canals of any piping projects, the Section 106s or the MOA, and have not to this day. Only if one looked at the COID website, or attended COID board meetings, would one know what was planned. For the owners of the canal without water rights, that would not occur to them. It was determined that the COID staff and grant writers are erroneously signing as the owners of the canal on applications and Section 106 forms, and therefore, no public or owner notification is taking place prior to the signing of agreements and approvals.

In October 2014, I submitted a nomination to the Oregon SHPO for a segment of the Pilot Butte Canal. The segment has the most integrity and it carries the full 450 cfs of water. The nomination was heard by the Oregon SACHP in February 2015. After legal challenges regarding ownership of the canal by Stoel Rives LLC Law firm, the National Park Service determine that the private parties that had been previously identified by the Deschutes County Assessor and notified by the Oregon SHPO for the SACHP hearing were indeed the owners of the canal and it was listed on the National Register of Historic Places.

After the SACHP heard our nomination and voted to forward it to the National Park Service, ICF International prepared a nomination for the Vale Irrigation District of a piped site that no longer held water. ICF also prepared the MPD for COID and two nominations under that MPD, one of each of their large canals.

Unfortunately, when the SACHP heard the nominations, it decided that the MPD should apply to all irrigation districts in Oregon with a federal connection and that all of the ICF nominations needed major revisions. The Nomination for the Brasada Ranch segment was raising many concerns. In exchange for the request to preserve a significant segment of the open historic Central Oregon Canal, COID identified and nominated the site of the historic Powell Butte Siphon at Brasada ranch that was removed and replaced in the 1970s and does not meet the original intent of the MOA.

However, ICF revised all of the nominations and they were reheard by the SACHP. At the February 2017 SACHP hearings, the Bureau of Reclamation Regional Office in Idaho, the Umatilla Irrigation District and others opposed the nominations as being full of errors of fact, too broad, and of little value. The SACHP at the urging of staff who said it was taking too many years to get it right, reluctantly voted to forward them to the NPS after staff and the preparer paid attention to the B of R concerns and made other revisions. It became apparent that required notification of all of the owners of record of real properties in the Brasada Ranch segment was not done and the Brasada Ranch owners formerly objected to the listing. It was not listed on the NRHP. The Vale nomination was not successful. Last summer, the Downtown Redmond segment of the Pilot Butte Canal was listed.

The MPD nomination was heard by the Oregon SACHP several times and was tabled for revisions, but in 2017 it was forwarded to the National Park Service. It has been used for three nominations so far: the nomination of the Vale Project: Lateral 278 Segment Historic District near Vale, Malheur County; the Central Oregon Canal: Brasada Ranch Historic District; and the Pilot Butte Canal: Downtown Redmond Segment Historic District. Of the three nominations, only the Pilot Butte Canal: Downtown Redmond Segment Historic District has been listed.

The MPD was listed **after** the nomination before you was written and submitted. The MPD has little information on any canals in particular and is general in nature.

Due to the National Register of Historic Places Multiple Property Documentation Form, MPD, segments of canals or entire canals that were developed under the Carey Desert Land Act in Oregon between 1901-1950 or by Federal Reclamation Projects in Oregon between 1902 and 1978 can be more easily nominated to the National Register of Historic Places. The MPD facilitates nominations of entire canals or segments of them throughout the state, including COID's canals and Vale's, Klamath Falls, and Umatilla's canals, without having preparers or owners do the intense, time consuming and expensive research that was done by myself and Michael Hall for the nomination of the listed Pilot Butte Canal Historic District (Yeoman Road-Cooley Road Segment) in 2014-2015 or the nomination before you. Our research would have taken a few more years if Michael Hall had not researched and written in 1993 and 1994 the 133-page *Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957. A Historic Context Statement*, paid for by a CLG grant. Even beginning with that base of research and knowledge, we each had over 1,000 hours in 7-day weeks of research to write our PB canal nomination.

The BOCC seems to think that the MPD was exclusive to the two nominations of segments of the canals that COID nominated in Deschutes County. It is not. The MPD applies to every irrigation district statewide that meets the two criteria.

The BOCC also was not correctly informed about a 2014 survey of the COID system. It was performed as a first step in nominating a stretch of each canal to meet a MOA between the Oregon SHPO, COID and the Bureau of Reclamation for piping a portion of the 'I' Lateral in Alfalfa, near Reynolds and Zell Ponds. The survey was done by COID staff, Black Rock Consulting, the engineering consultant on the proposed hydropower plants and associated piping on the system (Kevin Crew PE), and a Seattle based ICF International Consultant, Chris Hetzel.

The survey was done during the irrigation season in 2014, when the canals were full of water, so the consultant could not see or photograph the canals below water level. The survey was done of portions of the main canals by staff and Mr. Hetzel in a COID truck, only where vehicle access on ditch rider roads was possible and by aerial photography of the majority of the system. Many structures were mapped on the system, but not all. Most laterals and delivery ditches maintained by individual property owners were not surveyed in the time allowed. Some stretches of the main canals where ditch rider roads were and were not available were also skipped and not viewed, such as along the segment of the Pilot Butte Canal that we nominated.

BUT, COID's current and future hydropower and piping plans and property ownership were key considerations in selecting the two segments to nominate to the National Register. Previously piped segments or sites with little or no integrity such as at Brasada Ranch and segments that conveyed little water were not eliminated from consideration.

Out of that survey, mapping and consultation, two stretches were identified that met COID's criteria, not the SHPO's criteria. The narrow, flat, straight Redmond Segment of the Pilot Butte Canal was partially owned by COID and was not planned for piping. Sections of piped canal were near each end of the segment next to Home Depot in Redmond. In the segment of the canal in Brasada Ranch, COID had replaced the aging historic structures at the Powell Butte

Siphon in 1978, so it is a historic site, while the short open part of the canal above the Brasada Ranch Equestrian Center was bulldozed and significantly altered in 2017.

COID did not seriously consider nominating stretches that were historically difficult to construct, that carried significant amounts of water, retained their historic setting, or that were planned for piping and hydropower in its long-range master plan, called its System Improvement Plan.

The nominations were criticized at the SACHP, by the public and by SACHP members as not holding a large amount of water, of being severely altered and not being representative of the historic materials and workmanship or settings. They are not the best segments of the canals and did not show the labor or challenges of the historic construction techniques, said opponents orally and in letters at the SACHP meetings.

As the process dragged on for three years, the SHPO staff allowed the nominations to go forward, partially because a significant segment of the Pilot Butte Canal was already listed- the nomination that Michael and I wrote. The segments COID nominated did not have to be the best segments nor were they compared in any comprehensive way to the other segments in either the nominations or in the presentations.

The people of the County and the State of Oregon and private property owners would be robbed of the right to identify and nominate significant segments of the canals for listing on the National Register of Historic Places if only COID had that right. They don't.

In this case before you this month, COID owns one parcel in the proposed historic district on the Central Oregon Canal. COID erroneously claimed to own 4 parcels. After the debacle at Brasada Ranch, the Oregon SHPO was very careful in working with the Deschutes County Assessor to determine the parcels crossed by the 100-foot wide historic district and the owners of those parcels. COID is the only property owner that objected to listing the Central Oregon Canal (Ward Road-Gosney Road Segment) historic district, across their land. The remaining owners as identified by the Deschutes County Assessor are in favor of the nomination and have a right to nominate their own property to the National Register of Historic Places. It is the most significant stretch of the canal as described in the nomination.

MAINTENANCE AND REPAIRS

COID said of listing the historic district “a listing would substantially degrade the District’s ability to serve their needs if there was a break or leak in the canal that needed to be fixed.”

COID is spreading fear that it will not be able to maintain the canal in the historic district, if it is listed on the NRHP. That is baloney, as I said in a nicer way in my oral testimony. The protection of the historic district would be done right here, at the HLC and the Deschutes County Board of County Commission.

During the past two years, there have been no problems of the HLC preventing COID from maintaining and repairing the Pilot Butte Historic District, (Yeoman Road-Cooley Road Segment.) I expect the same for this segment of the Central Oregon Canal.

Unfortunately, COID's dramatic comment to engender sympathy, shows that COID has not read the County's historic preservation code. Has County planning staff advised it that the County's Historic Preservation Code allows for ordinary maintenance and repairs as COID and other irrigation districts have been doing for the last 100 years and for emergency repairs or necessary emergency alterations, without County HLC's review?

Section 106

One of COID's attorneys at the public hearing last week, Matt Singer, said preservation of the Central Oregon Canal can be done via the Section 106 process, without having a segment listed on the National Register (NRHP). This is BS. It is misinformation and another misleading and erroneous comment meant to throw you off base. I think you know it is false.

There is no segment of the Central Oregon Canal that is locally listed as a historic resource or listed on the NRHP. The Oregon Administrative Rules for implementing Goal 5, Historic Resources that was updated last year, and the Deschutes County Historic Preservation Code apply to preservation of only those segments of canals that are either listed on the Comprehensive Plan or listed on the National Register of Historic Places. The introduction to your Historic Landmarks Code tells its purpose and applicability. So, there is no protection of the proposed segment of canal to the NRHP until it is listed on the NRHP or the local Comprehensive Plan through BOCC decision. In Oregon, preservation is done at the local level with public involvement.

Section 106 forms are used exclusively to have the Oregon SHPO and the NPS review only proposed projects that are regulated by federal agencies or that are all or partially funded by federal money (federal undertakings). So, all activities of the COID that are not funded by the federal government nor regulated by the federal government do not require a Section 106 form to be completed and submitted at all.

Although the National Register listing does not provide much protection for a property other than through the relatively passive and academic Section 106 review process of proposed projects that involve federal funding or federal regulation, preservation in Oregon is done locally through the local elected officials and their appointed Landmarks Commissions, using a public hearing process and applying local historic preservation codes

The BOCC itself would be the final decision makers of any proposed alterations or demolition if the proposed historic district is listed on the NRHP.

The County's Historic Preservation Code states at 2,28,090.J:

“Nothing in DCC 2.28 shall be construed to prevent the ordinary maintenance or repair (e.g. painting) of exterior architectural features of a building or structure which does not involve a change in design or type of materials.”

2,28.090. K. states,

“A change in design or type of materials shall be allowed if the County building official states in writing that the repair is necessary for personal or public safety due to an unsafe or dangerous condition in or on the building or structure.”

Furthermore, Sterns Waste is owned by the COID. More information about how it is used in an emergency is in Section 7 of the Nomination on pages 25 and 26.

The preservation of the historic district would be done locally with the BOCC being the decision makers. Any decision of the HLC could be appealed to the BOCC. The final decision is by the BOCC, locally with an opportunity for public input.

SIGNIFICANCE AND INTEGRITY OF THE NOMINATED SEGMENT

The last thing I will mention in this letter was COID's charge that we should have nominated a segment of the canal in farming country in Alfalfa. Here is my response that meets the real criteria for significance and integrity.

The Central Oregon Canal Historic District has an exceptional degree of integrity and is a good example of a pioneer era canal in Central Oregon. Its location has not been altered over time, and it continues to display the distinctive characteristics of the historic period canal construction, an irregular, open, trapezoidal- shaped canal, made with local rock and soil by horse teams, hand tools and custom-designed steam drills. It represents the function and appearance of the water conveyance system, as it appeared during the historic period. The district is of sufficient length to portray the purpose, the construction challenges, materials, techniques, and methodology of construction. The headgates and pipes to 16 ditches, two laterals and one sub-lateral, and over a dozen irrigation ponds that serve irrigated and cultivated land next to the canal, illustrate how the canal functions to provide irrigation water to those with water rights. It also demonstrates the results of a lack of water on land with no water rights.

The structures at Stearns Waste are only 30 years old, but they replaced similar historic structures at the same location. Stearns Waste is an example of how the irrigation district staff deals with emergencies that can develop if water goes out of its banks downstream. Burt Chute and the remains of the historic wooden flume are reminders of the substantial challenges posed by lava tubes and sudden drops in elevation along a canal that flowed by gravity and could not go around obstacles. The wooden flumes were leaky and required constant maintenance. All of the historic wooden flumes that were on the main canal have been replaced with metal pipes or embankments. Burt Chute and the piers for the Bear Creek Ranch Bridge were formed by hand with concrete mixed and poured on site.

Workmen had to break up and remove massive amounts of rock, bridge caverns with wood and concrete flumes, and build huge embankments. The high degree of integrity of setting, location, design, materials, feeling, association, workmanship of the historic district differentiate it from the remainder of the Central Oregon Canal. The canal in the historic district is the only unaltered stretch of the entire canal that conveys the full volume of water (530 cfs) and displays evidence of all the practical solutions to the unique historic construction challenges in 1905, 1907 and 1914.

The canal in the district has a distinctive lack of uniformity, an undulating bed, irregular side slopes, heavily rip-rapped or stacked rock embankments, cuts, and rapids caused by large rocks left in the bed as it drops 50 feet in elevation. The challenging rock, use of native materials, and practical, problem-solving methodology, resulted in the stretch looking and sounding like a river flowing naturally. The berms on the edge of the hills on the downhill side are distinctive and show the difficult labor the teams and men went to in order to place the canal at the necessary elevation, so the system would flow for the entire length that was planned. It retains the feeling and association with the surveyors who determined its exacting route, so it

could flow entirely by gravity and serve all of the settlers and patrons. The canal varies greatly in width and depth, reflecting the engineers who calculated its necessary volume so that it would carry the water needed to irrigate future farms for the length of the canal, the superintendents and supervisors who adapted plans to meet conditions encountered in the field, specialists who blasted tons of rock with specialized mining equipment ordered the previous year to speed up work on the Pilot Butte Canal, and the hundreds of laborers with horse teams who dug, scraped, and moved thousands of loads of rock and soil, while trying to meet construction deadlines that were set in contracts between the canal developers and the State of Oregon.

The district has the widest variation of terrain and style and the tallest berms on the canal. The variations demonstrate that a narrow and deep canal with fast volume in a sloped area can carry as much water as a wide, shallow canal with a slower flow in flatter terrain. The tremendous variations in the district as seen in the survey data show that the nominated district displays all the designs and methodology found throughout the entire canal: irregular winding rocky portions with large built-up embankments on the downhill side; portions with vertical sides and others with sloping rip-rapped and stacked rock sides; smooth and sandy level portions; portions with two cuts and no embankments; portions with and without a ditch rider road atop the embankments; portions with short embankments used to discard the materials taken from the bed; portions that were blasted and portions that were scraped.

CONCLUSION

Please see the TEST I am submitting to you as attached to this email. I hope you have fun taking it and looking up the answers and that it motivates you to learn more. My husband has been designing headgates, canal structures, pipes and pumps for decades, since he worked on the California Aqueduct in 1968. Michael Hall has been studying the history of irrigation in Central Oregon for 24 years and writing excellent nominations, researching and writing local history. I completed two other nominations for historic districts and ten other nominations for individually-listed properties as the sole preparer or as part of a team. I have spent the last five years learning from Michael Hall and Don Kliewer, and building on that solid base. But, I find that the property owners and previous owners are also invaluable sources of information, and I hope you take their letters seriously.

You deserve better than what the COID general manager and attorney are telling you. Your time and brains are too valuable to be fed incorrect and misleading junk by parties involved in this. Why don't they tell you the truth and let you make an informed decision?

I will always check and recheck my facts as I learn new information that has never been written in books, every day. As anyone who has asked me a new question knows, if I don't confidently know the answer and can tell you how I came to know it, I will always tell you that I do not know the answer and if you like, I will try to find the correct answer to the question.

Please respect my work and respect the Oregon SHPO and Oregon SACHP's review process and vote to forward the nomination to the SACHP.

As the National Trust for Historic preservation says, "Historic places help define and distinguish our communities by building a strong sense of identity." I am sure you know the value of the National Register program in general to research and record local history, and why preservation is critical. Three Sisters Irrigation District has piped 50 of 60 miles of main canal

and saved water in the Wychus Creek. The Swalley district has saved the most water in the Deschutes River through its piping and other conservation efforts. All but one of the irrigation districts have initiated plans that pipe their main canals and many laterals. The USGS 2013 report states that the laterals have the greatest water losses from seepage into the ground, but piping them and the main canals may lower water tables.

There are many agencies looking at the various facets of the piping and hydropower issues, but your responsibility is one facet: historic designation and preservation. We are counting on you to focus on that. It is prudent and proper to honor the county's history and the contributions of those who came before us, by listing this stretch of the Central Oregon Canal on the National Register. Once it is gone, we cannot bring it back.

In appreciation of your volunteer efforts and all you do in the community to identify and preserve our County's history,

Sincerely,

Pat Kliewer, MPA

October 30, 2017

Memo of Understanding

TO: Tracy Zeller, Advisory Committee on Historic Preservation

FROM: Bill Olsen, Deschutes County Landmarks Commission Board Member

RE: Central Oregon Canal Historic District (Ward Road to Gosey Road 2.5 mile section)

Thank you for your return call this date and for the record the attached is my "personal" written testimony supporting the nomination to the National Register of Historic Places.

I understand that no decision was made in this regard at your previous October 20th Commission meeting, that the record is still open for written testimony in the regard.

The attached document dated October 3, 2017 is my personal endorsement supporting said COID Historic Request and as explained, I thought it would be submitted to the Advisory Committee as a supporting document, although contrary to the Deschutes County Landmarks Board's action.

However, I found later that my personal analysis and endorsement was not shared with your committee. Therefore, with this Memo of Understanding here is my personal endorsement as a Board Member to the Deschutes County Landmarks Commission, dated October 3, 2017.

Bill Olsen

(541) 480-5458 (email: bobo2@bendbroadband.com)

A handwritten signature in black ink, appearing to be 'Bill Olsen', with a long horizontal stroke extending to the right.

October 3, 2017

TO: Matt Martin, Deschutes County Planning Dept (Landmarks Commission), staff

FROM: Bill Olsen, Deschutes County Landmarks commission Board Member

RE: National Register of Historic Places (Central Oregon Canal Historic District Ward Road –Gosney Road)

Regarding this referenced property nomination to the National Register of Historic Places, the action of the Board, 10/2/2017 public meeting, was not to take action in support or against this request, but rather to submit our concerns to you and you would then collectively submit our remarks to the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

Our Board was selected to work at the pleasure of the Deschutes County Board of Commissioners to make representations on behalf of said commissioners relating to DESCHUTES COUNTY LANDMARKS and HISTORIC SITE SELECTION. We are their eyes and ears and our charge is to “safeguard historic sites”.

Yet, another Central Oregon Historic Site is being held hostage. A portion of the COID, an approximate 2.5 mile canal between Ward Road east to Gosney Road.

The fact remains, just like the Juniper Ridge canal portion, this particular site is a “historic site location” in nature. Constructed between 1906 and 1923 this irrigation canal structure allowed for homesteads and land development, which led to farming, crop production which supported animal production in the region, which in turn provided the force to drive commerce within developing Deschutes County. Some historians believe that Deschutes County was spun off from Crook County because of the creation of the COID and this unique and historic water delivery system. The Crook County area had the water with a natural water delivery system and the area which became Deschutes County had limited water and no delivery system.

One needs to merely read the many historic accounts from our early settlers to understand and realize the importance of those many historic sites, and structures which makes Deschutes County what it is today: THE OREGON DESERT, DESERT SAGE MEMORIES, THE RIVER FLOWS AS THE MOUNTAINS WATCH, THE PIONEER SPIRITS OF BEND, AND IT IS TOO COLD TO SNOW to name just a few of local literature.

Therefore, for the Record: I vote “OK” on Integrity: this portion of the canal, I believe, is historic with regard to construction, materials, design and location

I vote “OK” on Description: in reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified

I vote “OK” on Significance: Again, one needs to merely reference the above books and memories written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923

I vote “OK” on Facts and Sources: the data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

As an appointed Board Member I support this nomination- Bill Olsen



Hi,

My name is Lisa Hyatt. My parents Gary and Suzanne Grund are proud owners of a portion of the canal with deeded water rights sold to the property by the Carey Act. I'm writing this letter and will be driving from Portland to attend the SACHP hearing on Friday, June 22nd to show my support for the nomination of the Central Oregon Canal Historic District into the National Register of Historic Places. I ask that you vote to forward this nomination onto the National Park and Recreation Service.

I was born and raised in Bend so I grew up with the Canal being a very important part of my daily life. Did you know that prior to the canal being built, in 1900, there were only approximately 21 people living in Bend? And Bend, along with much of the surrounding area, was classified as 'arid' and thought to be almost worthless due to the light rainfall? You wouldn't know that today from the over 91 thousand that currently live there. The construction of this canal that began in approximately 1905 brought value to the land and settlers from all over who purchased land and bought water rights.

The nominated section from Ward to Gosney Road has so many historical scars and artifacts remaining today that tell a story of its creation. The Bear Creek Ranch Bridge that resides on our property is truly one of a kind. It was built around 1928 by the property owner, Dragan W. Mirich, to provide access across the canal from Break Creek Road to his land on the south side of the canal. I wish I had been around to see the construction because it's seriously impressive when you think about the tools they had available to them at the time! He started with creating three huge concrete piers. On top of the middle pier a massive steel "I" beam was placed horizontally. And then six 10" x 10" rough-sawn lumber was placed parallel to the piers. Since the bridge spans 65 ft. long and 10 ft. wide, the weight of ONE of those was probably over 300 lbs. Finally, 4" x 12" wood planking was placed across those beams providing the level driving surface. Now that is a lot of material, man power, and true grit to get to the final result. My family still uses this bridge on a daily basis to get to our property. Isn't it amazing that to this day, 90 years later, this bridge is still standing and being used for the same purpose it was created for originally? I think that is what history is all about and that is why this is only one of many historic structures in this stretch of the historic district. I have included a recent picture of my dad and son, Braydon, using the bridge on one of their many 4-wheeler expeditions around our property. Pictures really don't do it justice so if you find yourself in the Bend area I highly recommend you come by and see it for yourself. My dad would be happy to give you a history lesson.

In this same section of the canal there is also a historical headgate that was engineered to divert water from the main canal into the irrigation ditch to our property. This ditch is maintained by my family because it feeds into our upper pond that breaks off from there and waters our fruit trees. It then flows down to a lower pond where the pump pulls water to irrigate our land. I have so many memories as kids having to move all that irrigation pipe for the alfalfa grass we grew at the time. AGAIN this illustrates that 90 years later the water from the historic canal is providing the same value to our property that was originally promised and taken advantage of by the settlers. We were taught hard work by my parents, to live off the land and utilize it to the fullest. The history shows that without the hard work of the settlers who were brought by the canal before us our home wouldn't be what it is today, Bend wouldn't be what it is today and I wouldn't be who I am today. Doesn't that deserve to be preserved so we can educate our future generations. I want to be able to not only tell stories, but physically show my 2 year old son and soon to be daughter, the history of how our family home was created. Because of all of this, I ask that you vote to forward this nomination onto the National Park and Recreation Service.

Thank you so much for taking the time to hear my story and I look forward to seeing you at the upcoming hearing.

Sincerely,

Lisa Hyatt

6/19/18



6/19/18

To: The National Register of Historic Places

My name is Sean Hyatt, and I married the most beautiful girl ever born and raised on Bear Creek Ranch in Bend, Oregon, which is owned by Suzanne and Gary Grund. I was born and raised in Portland and now my family and I live just a little further south in Tualatin. I went to school at Oregon State University, where I graduated with my Bachelor's Degree in History, and I've always been very interested in learning where everything came from. Interested in how the world we live in came to be the way it is today. Interested in the mistakes we've made, if we've learned from them, and what was done to correct them. So, one of the many great things about marrying into the Grund family was how much passion Gary had for learning history as well. We've visited many antique districts around the state together, and just passed time telling stories from books we've read or documentaries we've seen on different people, places, and events in history. Bear Creek Ranch and the city of Bend are very lucky to have someone that cares so deeply about their history, and works very, very hard to not only preserve it, but to pass it on as well.

My first time visiting the Grund family, when Lisa and I started dating, I remember coming across the bridge over the canal and admiring not only the beauty of the entire property itself, but of the rushing water flowing through the canal under the bridge as we crossed over. I, of course, had to mention it to Gary and Suzanne once I met them, because it's just something that's too difficult not to compliment. And Gary, of course, being who he is, had to give me the whole story of how that canal came to be. How the canal was built around 100 years ago to encourage settlers to move to the Central Oregon areas. How many years of hard, grueling work allowed those places to actually be livable, thanks to the water from the built canal. How their property, all of the surrounding properties, and the entire city of Bend wouldn't be the way it is today without it. It's been really fun learning even more about the canal and its history during my research after this nomination came to be.

What I would really hate to see happen is for these stories, the history of this entire area's beginning, to slowly become forgotten, or replaced with less attractive stories. If this stretch of the canal is not protected, if this stretch of the canal which is owned by the people who reside there with the deeded water rights sold to them by the Carey Act is not protected, then what happens next could be devastating. We risk letting the canal be subject to other projects, turning it into something that people no longer ask about, even avoid talking about, thus slowly losing the history and integrity of the canal. As passionate as Gary was in telling me about the rich history of their property that day, and many similar stories since, I will be that passionate in filling our 2-year-old son (and soon to be born daughter) in on that history, and his friends, and the same goes for the other property owners and their next generations. How difficult is it to paint the picture when the physical evidence is all but erased, or replaced? I ask that you vote to forward this nomination onto the National Park and Recreation Service. I would hate for this to be another mistake made, because once we learn from this one, there's nothing that can be done to correct it.

Thank you very much for listening.

Sean Hyatt



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



February 5, 2018

Tammy Baney, Chair
Board of County Commissioners
PO Box 6005
Bend, Oregon 97708

Christine Horting-Jones, Chair
Deschutes County Historic Landmarks Commission
PO Box 6005
Bend, Oregon 97708

Dear Chair Baney and Chair Horting-Jones:

On January 8th, 2018 the State Historic Preservation Office (SHPO) removed the nomination for the proposed Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment) from the agenda of the February 16, 2018 meeting of the State Advisory Committee on Historic Preservation (SACHP). We removed it based on a combined negative recommendation from both the Deschutes County Landmarks Commission (as the Certified Local Government) and the Deschutes County Commission (chief elected official) per provision 54 USC 302504 of the National Historic Preservation Act. The negative recommendations were based on the same nomination document that was reviewed by the SACHP at its October 2017 meeting, not the substantially revised nomination that was received by the SHPO in December 2017 and placed on, and later removed from, the February SACHP agenda.

After a detailed inquiry into the application of 54 USC 302504, and review of the requested guidance from the National Park Service and the Oregon Attorney General's Office, we are placing the revised nomination back on the SACHP's meeting agenda. In order to meet federal program requirements to provide a 60-day commenting period, the nomination will be placed on the agenda for the SACHP's June 2018 meeting.

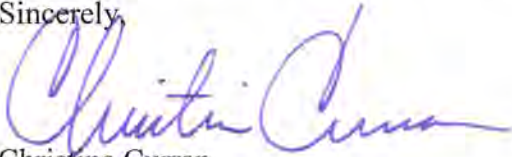
The clarification that compelled this turn of events is the distinction between the sufficiency of the nomination and the eligibility of the nominated property. As we learned from the NPS, the combined local government negative recommendations are *applicable to the nomination document, not the nominated property*. Our January 8th letter was based on the understanding that the law provided the CLG and chief local officials the opportunity to block a property from being listed based on their determinations that *the property is not eligible* for listing in the National Register (no matter how many times a nomination is revised), which was an incorrect interpretation of federal law.



National Park Service guidance further clarifies that a preparer may resubmit a nomination previously blocked by a combined local government negative recommendation when the nomination document has been substantially revised. In this circumstance, the CLG and chief elected official must be provided a comment opportunity and again have the ability to object to the revised document. The nomination reviewed by the Deschutes County Landmarks Commission, Deschutes County Commission, and State Advisory Committee on Historic Preservation in October 2017 was substantially different than the current revised draft, (resubmitted December 12, 2017). Federal law requires us to consider the revised draft as a new document subject to a fresh process.

Both commissions should look forward to receiving notifications and copies of the revised nomination in April 2018. Until then, if you have additional questions about the process, please contact Associate Deputy SHPO Ian Johnson at 503-986-0678 or ian.johnson@oregon.gov

Sincerely,



Christine Curran
Deputy State Historic Preservation Officer

cc by email: Patricia Kliewer, preparer
Craig Horrell, District Manager, Central Oregon Irrigation District

cc by mail: Property owners within the boundaries of proposed Central Oregon Canal Historic District (Ward Rd-to-Gosney Rd segment)

ALLEN Jason * OPRD

From: Anne Herrick Dienel <anneherrick@mac.com>
Sent: Monday, June 18, 2018 5:16 PM
To: JOHNSON Ian * OPRD; ALLEN Jason * OPRD
Subject: Central Oregon Canal nomination (Ward Road to Gosney Road)

To whom it may concern,
I am writing in support of the nomination you will be reviewing on June 22 in Redmond.

I believe it is vitally important to save this stretch of Oregon's canal system, both for the present generation and for generations to come. I am aware there is a lot of opposition to this as well. This is a still functioning section of the original canals in Central Oregon and should continue to be viewed as such - not some section that is to be bypassed by the irrigation district just to satisfy their interests. One of the properties that adjoins this nominated section is owned by the Parks and Recreation district and they have, in past conversations, expressed an interest in a public park at their location so everyone would have a public supported area to view this piece of history.

Thank you for your time and attention to this nomination.

Anne Herrick Dienel
541-621-9337
anneherrick.com

June 11, 2018

To: Jason Allen

RE: Central Oregon Canal Historic District (Ward Road to Gosney Road)

I (Anita S. Elsey) have lived in Bend since 1980. I moved out to Gosney Road in 1983.

I believe this section of the canal has exceptional historic value. The curves and drops in elevation denote the excellent engineering of this section to sustain water flow for miles.

The location of this section of the canal is close to town and there is easy access for the general population to come and observe this living history. There is access through the local Parks and Recreation District Park known as Eastgate Park. This portion of the canal on the east side is still desert and looks much as it did 100 years ago.

The properties that are located along this section of the canal demonstrate the variety of ways in which the canal is used. This section of the canal feeds small orchards, small vegetable gardens, cattle range as well as larger hay fields. The canal brings water to the desert to provide food and livelihoods for Central Oregon to grow and flourish. This section of the canal is a prime example of the integrity of a living and working canal as well as history.

Allowing this portion of the canal to remain open without a pipe would allow people of all generations now and in the future to see how our community came to be.

As Joni Mitchel wrote: "You don't know what you've lost til it's gone"

Thank you for your time and consideration,

Anita S. Elsey
61590 Gosney Rd.
Bend , OR 97702

ALLEN Jason * OPRD

From: gary grund <gagrund@gmail.com>
Sent: Wednesday, June 20, 2018 10:49 PM
To: ALLEN Jason * OPRD
Cc: JOHNSON Ian * OPRD
Subject: Central Oregon Canal nomination

I want to give my 100% approval to the nomination. It is a amazing nomination with a very high degree of integrity. This canal was so important in forming what Central Oregon is today. We started as a logging town and because of the canal became also a farming area. People came from back East and from Europe. Many of these same families are still farming their farms today.

In Rome Italy I got to see the aqueduct system a few years ago that was built 2000 years ago and I found it very interesting. I am glad that they felt it to be important to the history of Rome. They have done a amazing job preserving buildings but I a glad that they preserved the aqueduct system as well.

I was in Folsom California two weeks ago the town was formed because of gold mining back in 1850. The city has done a beautiful job of preserving lots of the buildings and mining equipment. But what I also noticed was the city even kept the mining tailings for people to see. Its part of the history. Its on land that could be sold for development but they decide to preserve it.

Lets do the right thing and preserve this stretch of Central Oregon Canal for all future generations to see. The option is give it to development (piping) and future generations will have to go to a museum to see what the canal looked like that helped form Central Oregon.

Gary Grund
21925 Bear Creek Road
Bend Oregon

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Tuesday, April 24, 2018 10:00 AM
To: ZELLER Tracy * OPRD; ALLEN Jason * OPRD; OLGUIN Robert * OPRD
Subject: FW: Central Oregon Canal Historical Nomination

More COC correspondence for 30-day mailing.

Ian

Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

-----Original Message-----

From: Suzanne Grund [<mailto:sgrund@bendcable.com>]
Sent: Monday, April 23, 2018 4:31 PM
To: Zechariah.Heck@deschutes.org
Cc: JOHNSON Ian * OPRD
Subject: Central Oregon Canal Historical Nomination

Hi Zechariah & Ian,
We want to request your support of our Central Oregon Canal Historical Nomination.

So quickly, historically significant events and places are slipping away from us.

If you have done any traveling you have seen places that have carved out history and made our country what it is today. You already know the power of standing in the footprints of the people that came before you working hard to bring about the changes that we now take for granted.

We recently went to visit a patch of land in Wyoming that our grandfather homesteaded, as a result of the Carey Act, back in 1922. We had great anticipation as we drove to the site. Our expectation was that it would look similar to Bend, the place that we have called home for almost 40 years. We knew the Canal property that we live on was created by that same Carey Act between 1895-1920.

Instead we found a vast, dry wasteland of dry grass with a few sheep grazing on it, and a couple of seemingly abandoned oil wells. There were no tall Ponderosa's, Junipers or low lying vegetation. No green in sight for as far as the eye could see.

No town even remotely similar to Bend. The reason for the vast differences in the two areas was there was no canal. We understood then, how important our Central Oregon Canal has been in the development of the city of Bend that we know today. There were other contributing factors and together they formed the foundation that has sustained the growth and success of this area in good times as well as through the challenging years.

You have the opportunity to protect a piece of the canal for future generations to witness the history that created our great city of Bend.

We hope that you will support the Central Oregon Canal Nomination and preserve an important piece of our history!

Respectfully,
Suzanne & Gary Grund

ALLEN Jason * OPRD

From: Suzanne Grund <sgrund@bendcable.com>
Sent: Tuesday, June 19, 2018 12:16 PM
To: ALLEN Jason * OPRD; JOHNSON Ian * OPRD
Subject: Central Oregon Canal Nomination

To "ALLEN Jason * OPRD" <jason.allen@oregon.gov>

Please send this letter with our Nomination to the State Advisory Committee Historical Preservation Members.

Dear State Advisory Committee Historical Preservation Members;

So quickly, historically significant events and places are slipping away from us.

If you have done any traveling you have seen places that have carved out history and made our country what it is today. You already know the power of standing in the footprints of the people that came before you working hard to bring about the changes that we now take for granted.

We recently went to visit a patch of land in Wyoming that our grandfather homesteaded, as a result of the Carey Act, back in 1922. We had great anticipation as we drove to the site. Our expectation was that it would look similar to Bend, the place that we have called home for almost 40 years. We knew the Canal property that we live on was created by that same Carey Act between 1895-1920.

Instead we found a vast, dry wasteland of dry grass with a few sheep grazing on it, and a couple of seemingly abandoned oil wells . There were were no tall Ponderosa's, Junipers or low lying vegetation. No green in sight for as far as the eye could see.

No town even remotely similar to Bend. The reason for the vast differences in the two areas was primarily there was no canal.

We understood then, how important our Central Oregon Canal has been in the development of the city of Bend that we know today. There were other contributing factors and together they formed the foundation that has sustained the growth and success of this area in good times as well as through the challenging years. Including those that lie ahead. The canal in the historic district crosses the tax lot 1813060001700, a 79.60 acres parcel in the district that is publicly owned by Bend Park & Recreation District.

That will allow excellent public access to the historic canal for generations to come.

You have the opportunity to protect this piece of the canal for future generations to witness the history that created our great city of Bend. Seeing and hearing the powerful flow of water moving through the canal can not be fully experienced in pictures or videos.

This nomination will ensure that now and in the future the "real" thing will be available to experience!

We hope that you will support the Central Oregon Canal Nomination (from Ward to Gosney) and preserve an important piece of our history!

Respectfully,
Suzanne & Gary Grund

ALLEN Jason * OPRD

From: Kristen Grund <kristen.grund@gmail.com>
Sent: Sunday, June 17, 2018 11:53 AM
To: JOHNSON Ian * OPRD; ALLEN Jason * OPRD
Subject: Canal Historical Nomination

Ian and Jason,

Thanks for all your time and involvement in the nomination for the 3 mile stretch of canal in Bend. I know it has taken a lot of time and energy from everyone to help preserve this one small stretch from piping and being forever buried underground.

I want you to know, I am an advocate of working together and compromise. I believe it to be so extremely important to save the Deschutes River as well as a piece of this Central Oregon Canal. Understanding that we live here in the High Desert, I am thrilled to finally see an investment in solar panels going up all over Bend to capture power straight from the sun as a way to power Central Oregon residents. As we are unable to lower the floodgates and stop the steady stream of people moving here who also love this area, it seems as not a very good long term plan to pipe all our beloved canals to try and implement hydroelectric (are you going to put a stop to the 26 breweries and counting, development of golf courses, limit those moving here?). Water is a precious resource that will be only lessening with everyone wanting a slice of the pie. And with global warming, are we planning for the future? Solar we can always rely on here in Central Oregon. And wind? We have wind.

Please know that you are at the crux or crossroads in history. Once piped, you can never go back. Please save a piece of our past. Help us keep it here for us and our future generations. We thank you. The farmers out east thank you. Animals and plants that have relied on these canals thank you. Please stand for nominating this stretch of canal.

Thank you,

Kristen Jokinen
541.797.1470
141 SW Roosevelt Ave
Bend, OR 97702

Holland & Knight

111 S.W. Fifth Avenue, 2300 U.S. Bancorp Tower | Portland, OR 97204 | T 503.243.2300 | F 503.241.8014
Holland & Knight LLP | www.hklaw.com

Matt Singer
(907) 830-0790
Matt.Singer@hklaw.com

June 19, 2018

Sent Via Email Only

Jason Allen
Oregon State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301-1266
Jason.allen@oregon.gov

Re: Central Oregon Irrigation District's Comments on Proposed Central Oregon Canal Historic District, Ward-to-Gosney Road

Dear Mr. Allen:

Please accept these comments on behalf of Central Oregon Irrigation District (COID) in opposition to the proposed nomination of the Ward Road to Gosney Road section of Central Oregon Canal to the National Register of Historic Places (“the Nomination”). For several reasons, the Nomination does not meet the criteria for listing. COID has retained JRP Historical Consulting, an expert in historic water structures, to conduct a peer review of the Nomination. That peer review is attached as Exhibit A to this letter.

BACKGROUND & CONTEXT FOR THIS NOMINATION

COID serves nearly 3,600 patrons in Central Oregon. It operates two main canals, the Central Oregon Canal and the Pilot Butte Canal, that provide irrigation water to family farms, municipalities and school districts, and business and residential properties located in and outside of Bend, Redmond, and surrounding Central Oregon communities.

COID is pursuing a long-term plan to responsibly manage its water resources for the benefit of its patrons and the Deschutes Basin. Piping open irrigation canals is an important aspect of COID's overall plans, and provides numerous benefits for the region,

the state, and the United States. The piping of COID's water delivery system is a priority for COID in order to protect and improve water quality, conserve water, and increase instream flows in the Deschutes River for species listed under the Endangered Species Act. To meet these objectives, COID has developed a system improvement plan and has begun a phased approach to piping of its canals.

There are no imminent plans that would change the canal section described in the Nomination. While there are locations along the COID canals with potential for hydroelectric development, the Ward-to-Gosney section of the Central Oregon Canal does not provide hydroelectric potential. While this stretch of canal presents significant water loss due to seepage and evaporation, there are other locations where piping is a higher priority. COID may eventually pipe this section of canal to conserve water and meet its obligations to increase instream flows and improve habitat for listed species, but this section is unlikely to be altered by COID for several decades due to higher priority system improvement projects in other locations. COID is concerned, however, that the current Nomination is an abuse of the National Register process, and that if SHPO does not curb this abuse, we will see more and more attempts by private property owners to use the National Register process to create land use hurdles to utility operations in their neighborhoods.

JRP HISTORIC CONSULTING PEER REVIEW

COID is concerned that the nomination process in Oregon is vulnerable to abuse by special interests. SHPO staff does not have the resources to conduct independent investigations to determine the validity of factual assertions included in a nomination. Accordingly, COID retained JRP Historical Consulting to conduct a field survey, to review the prior reconnaissance survey performed by ICF Consulting, and to consider the merits of the Nomination. Both on its own merits, and when considered in light of the pre-existing Multiple Property Document (MPD), this Nomination should fail. Please consider these key points from the attached peer review:

- The Nomination fails to make a compelling case for eligibility under Criteria A. Everything said about this section can be said about nearly any canal or water structure in the west.
- The Nomination fails to consider the MPD or to apply its registration criteria. This is problematic for numerous reasons explained in the JRP Peer Review.

- The Nomination misrepresents facts, claiming that the nominated district contained numerous “contributing” structures which in fact were constructed much more recently, well outside the period of significance.

The JRP peer review establishes why the Nomination is ill-conceived and should be rejected. The JRP peer review is attached as Exhibit A.

THE NOMINATION FAILS TO ACKNOWLEDGE OR APPLY THE MULTIPLE PROPERTY DOCUMENT

To be clear, the entire Central Oregon Canal is historic. This fact is undisputed because the canal was constructed over a century ago. Indeed, COID funded a multi-year study and analysis that resulted in the successful nomination of the Carey and Reclamation Acts Irrigation Projects in Oregon 1901-1978 MPD to the National Register on July 10, 2017.

The current Nomination was significantly revised and then re-submitted to SHPO in November 2017, months after the MPD received final approval and was listed by the National Park Service in July. The Nomination contains a footnote reference to the MPD, so the proponents were certainly aware of the MPD document. Yet, inexplicably, the Nomination fails to consider the MPD or apply its registration requirements.

Oregon SHPO expressly directs that when a person seeks to begin a nomination of an item covered by a MPD, the first step should be to “check to see if your property would qualify for listing under an MPD before beginning a National Register nomination.”¹ It is clear that the Nomination made no effort to comply with SHPO’s directions.

Moreover, the Nomination does not comport with the Registration Requirements of the MPD. For example, the Nomination defines the boundaries of the proposed district by two roads—Ward Road and Gosney Road—which did not even exist at the time the canal was constructed. This method for delineating the length of canal section is at odds with the MPD’s requirements.

Registration Requirement #4 of the MPD, located at page F-50, does not support identifying the length of a nominated canal section merely by selecting two nearby roads that confine an existing, modern-day neighborhood. Rather, a nominated canal segment “*must be long enough to represent its original function (i.e., conveyance of water over distance) and demonstrate its functional relationship and connectivity to other*

¹ See https://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_multipleproperty.aspx, last viewed on June 15, 2018.

contributing elements. As the primary resource in a grouping or historic district, a shorter length of canal or lateral may be considered of sufficient length, if the eligible property also includes other principal or secondary resources, such as the segments of one or more laterals, headgates, check structures, or other appurtenant features. The inclusion of a longer canal or lateral segment may be necessary, if few other contributing resources are present in a nominated grouping or historic district, or it is individually significant.” As established by the ICF reconnaissance study and the JRP field inspection, there are essentially no contributing sections in the Ward-to-Gosney section, other than the canal itself. In the absence of such contributing structures, the MPD does not support nomination of a short, isolated section of the canal.

This is even more so where the particular section of canal does not demonstrate a strong association to either settlement or agriculture. Settlement largely failed within this district during the period of significance, and the area was not developed until decades later. Even today, there are only a handful of parcels with any discernable connection to agriculture.

THE NOMINATION MAKES NO COMPELLING LINK BETWEEN THIS PARTICULAR SECTION AND THE SETTLEMENT AND AGRICULTURAL DEVELOPMENT OF CENTRAL OREGON

The Nomination is brought under Criterion A and asserts that the proposed district is important to the history of settlement and agriculture, but neither is particularly true. This section of canal has poor soils adjacent to it, and so settlement and agriculture along this section largely failed during the period of significance. There are large swaths of land in this area that have never been developed, and much of the land was built out as a residential suburb decades after the period of significance. While there are areas, such as out in the community of Alfalfa, where the canal and its surroundings demonstrate a strong connection between the historic structures and the history of settlement and agriculture, this cannot be said for the Ward-to-Gosney Road section. Indeed, the Nomination itself acknowledges that much of the land in this section was never developed and was returned to the original irrigation company. Another large piece of land is owned by Bend Parks and has never been developed or irrigated to this day. On its merits, and even ignoring the MPD, this section does not warrant its own nomination.

THE NOMINATION DOES NOT MEET THE INTEGRITY CRITERION FOR LISTING

The Nomination is factually incorrect when it asserts that this section is uniquely representative of the original Central Oregon Canal. To the contrary, this section has required substantial maintenance and reconstruction that has affected its historic integrity.

As detailed in the attached report marked as Exhibit B, and the attachments thereto, the geology and topography in this area has created difficult maintenance challenges for COID. As a consequence, several sections of the canal in the nominated section have been subject to excavation and fill activities, installation of rip rap, spreading of silt materials, and other ongoing modifications. These activities go beyond mere routine maintenance and have required substantial physical alteration and reconstruction of stretches of the canal. Attached to Exhibit B are engineering reports and other documents that identify some of this substantial reconstruction effort from the recent past. The Nomination ignores these events, and makes almost no attempt to discuss the likely reconstruction events that occurred in this section of canal over the last century. The canal is an operating utility conveyance, and as such has been in a state of constant modification and improvement over the last century. The Nomination is factually wrong to claim this section is unaltered or representative of the original canal. The challenging geology and geography of this particular section means that it has required more maintenance, construction, and reconstruction by COID than any other section along the Central Oregon Canal.

When considering this history of construction activities and how it impairs the historic integrity of this section of canal, SHPO should also consider the practical and safety problems with a nomination. As documented in the exhibits to these comments, COID has repeatedly had to perform emergency construction activities to address canal collapse, burrowing animals, and erosion. Under local law, some of these construction activities would require prior approval from the Deschutes Historic Landmark Commission if the section is to be nominated. Yet the Deschutes County Historic Landmark Commission meets only quarterly. If a canal is in imminent danger of collapse and could pour hundreds or millions of gallons of water onto a private property or residence in this area, is COID supposed to submit an application to the Landmark Commission and wait a few months for permission to act?

In evaluating the integrity of the proposed nomination, SHPO should consider such factors, including the Location, Design, Setting, Materials, Workmanship, Feeling, and Association. These factors also weigh against the proposed Nomination.

- Location. The nomination makes the inconsistent claim that the Ward-to-Gosney section of the Central Oregon Canal is both unique and representative of the entire canal. Which is it? In truth, there is nothing terribly significant about the location. Unlike the Redmond Homestead nomination for the Pilot Butte Canal, where the nominated linear feature was linked directly to the founding of the City of Redmond and its early homesteading, there is no such link between the Ward-to-Gosney section and adjacent land parcels, most of which were developed only in recent decades. Indeed, much of the discussion

about adjacent use of land is outside the period of significance, seeing as this area was developed and inhabited decades after the canal was constructed.

- Design. The Brasada Ranch nomination is an example of a nomination where Design was a significant contributing factor to the nomination's integrity. In that nomination for a segment of the original Central Oregon Canal, there are significant engineering accomplishments that reflect important design innovation and ingenuity. In contrast, the Ward-to-Gosney section is primarily a large ditch. The purpose of the National Registry of Historic Places is not to celebrate our ability to dig a ditch, but rather to cherish those important and significant structures from our past. The Design factor weighs against the Nomination.
- Setting. The Nomination does not establish a reason why the Setting of this proposed canal section is significant. There is nothing distinguishing the nominated section from sections immediately east or west along the linear feature. In addition, the Setting is entirely along private land parcels and the canal road is gated on both ends, such that it does not provide any public access. Rather, the Setting is important to the proponents primarily because the canal runs through their backyard.
- Materials & Workmanship. The nominated canal section is essentially a large ditch. Neither the Materials nor the Workmanship reflect noteworthy or important accomplishment. Unlike, for example, the Brasada Ranch nomination that included important engineering accomplishments in the structures built in the area to convey water across a dry creek canyon, this section of canal does not. In addition, the substantial reconstruction activities, along with frequent redistribution of silt bars along the canal, means that much of the canal has been altered and does not reflect its original Materials or Workmanship. These factors weigh against finding sufficient integrity to support the Nomination.
- Feeling. "Feeling" is an admittedly subjective criterion for evaluating integrity, and different people may have different feelings about whether the Central Oregon Canal "feels" historic. But the reality is that this section of canal is an operating utility conveyance that has required reconstruction and heavy maintenance, such that regardless of subjective Feeling, the section is objectively not an historic structure.
- Association. A final factor in evaluating integrity is whether the nominated structure has a clear Association to historic events. The Nomination provides a

lot of words cut and pasted from prior nominations that discuss the general historic events in Central Oregon, but there is very little that ties the specific Ward-to-Gosney Road section to these events. The Nomination does not meet the burden of proving that its Association to historic events warrants inclusion on the National Register.

COID IS THE OWNER OF CENTRAL OREGON CANAL AND OBJECTS TO ITS INCLUSION ON THE NATIONAL REGISTER

National Park Service lacks authority to include private property on the National Register if the owner of the property objects by notarized statement before the property is listed. 36 C.F.R. § 60.6(r). Under National Park Service regulations, “[t]he term owner or owners means those individuals, partnerships, corporations or public agencies holding fee simple title to property. Owner or owners does not include individuals, partnerships, corporations or public agencies holding easements or less than fee interest (including leaseholds) of any nature.” *Id.* § 60.3(k). As explained below, COID falls within this definition of “owner” and objects to the inclusion of Central Oregon Canal on the National Register.

COID (as successor to the Pilot Butte Development Company and the Deschutes Irrigation and Power Company) acquired a right of way for Central Oregon Canal under the Act of March 3, 1891 (the “Right of Way Act”). As required by the Right of Way Act, the Deschutes Irrigation and Power Company filed with the local land office an as-built map of the canal. Our understanding is that the Department of the Interior approved the map on March 3, 1903.

The Right of Way Act granted a “right of way ... to the extent of the ground occupied by the water of any reservoir and of any canals and laterals and fifty feet on each side of the marginal limits thereof.” 43 U.S.C. § 946. The U.S. Supreme Court described the scope and nature of the property interest granted under the Right of Way Act in *Kern River Co. v. United States*, 257 U.S. 147 (1921). In *Kern River*, the Court explained: “The right of way intended by the [Right of Way] Act was neither a mere easement nor a fee simple absolute, but a limited fee on an implied condition of reverter in the event the grantee ceased to use or retain the land for the purpose indicated in the act.” *Id.* at 152.

Lower courts have further explained the concept of a “limited fee.” The Arizona Court of Appeals, in a case regarding the Right of Way Act, described the characteristics of a limited fee as follows:

It is a right to use the surface of the land for a specific purpose. Such land has definite boundaries which must be recorded with the Federal

Government. The limited fee cannot be conveyed to be used for any purpose other than that specified in the grant and cannot be taken by adverse possession for any other purpose. If the limited fee is abandoned or forfeited it can only be by virtue of Federal statute or regulation and the fee reverts back to the United States. The limited fee owner has a superior right to the surface of the land against anyone else. The limited fee is used for railroads, pipelines, power plants, irrigation ditches and reservoirs, canals, etc.

Wiltbank v. Lyman Water Co., 477 P.2d 771, 774 (Ariz. Ct. App. 1970). Based on this description, a limited fee involves only two ownership interests: the grantee's current interest and the United States' reversionary interest.

The Wyoming Supreme Court distinguished between the grantee's current interest in the ground occupied by water – the reservoir, canal, or lateral – and the 50-foot right of way that extends from the margins of such reservoir, canal, or lateral. *See Johnson Irrigation Co. v. Ivory*, 24 P.2d 1053, 1057-58 (Wyo. 1933). Regarding the ground occupied by water, the grantee has “the right to the exclusive and continuous use and possession of the land so occupied and, therefore, has a fee and not a mere easement.” *Id.* Although the grantee's ownership interest is subject to a condition that the property be used for the purpose of irrigation and purposes subsidiary to irrigation, the grantee “may, while the estate continues, have *the same rights and privileges as an owner in fee simple.*” *Id.* at 1058 (emphasis added). Regarding the additional 50-foot right of way, the grantee's right “is for uses which may be only intermittent and occasional, and is not a proprietary interest in the land itself. It is in the nature of an easement appurtenant to the ‘ground occupied’ by the [water].” *Id.* at 1057.

Here, COID holds a limited fee in the Central Oregon Canal and a 50-foot right of way that extends from the margins of the canal. With respect to the canal, this means COID has the same rights and privileges as an owner in fee simple. In addition, COID owns as a private property owner several tax lots, both underneath sections of the nominated canal and adjacent thereto.

Because the National Park Service defines “owner” to include entities holding fee simple title to property, COID has the right to object to the inclusion of Central Oregon Canal on the National Register. This interpretation is consistent with 54 U.S.C. § 302105, which required the Secretary of the Interior to “promulgate regulations requiring that before any property may be included on the National Register ... , the owner of the property ... shall be given the opportunity (including a reasonable period of time) to concur in, or object to, the nomination of the property for inclusion or designation.” 54 U.S.C. § 302105(a). Failure to recognize COID's ownership of the canal would be contrary to Congress's intent that the owner be given the opportunity to object to the nomination.

The Nomination form fails to distinguish between COID's ownership of Central Oregon Canal and the ownership of the real property underlying the canal. The Nomination form includes some description of the boundaries of the properties adjacent to and, in some cases, underlying the Central Oregon Canal, but it fails to identify COID as the owner of the canal itself. COID is the owner of the "primary structure" identified in the Nomination form and objects to its inclusion on the National Register. On this basis alone, the Nomination should be rejected.

In addition, COID owns a number of private parcels of land along the nominated canal. These parcels are held in fee simple and are managed as private property. COID, therefore, also objects as a private property owner. COID's Notarized Owner Objection Statements, pursuant to 36 C.F.R. parts 60.1-60.15, are attached hereto and incorporated herein as Exhibit C.

Very truly yours,

HOLLAND & KNIGHT LLP



Matt Singer

MS/crk

Enclosures: Exhibits A-C



April 12, 2018

To: Craig Horrell, General Manager | Central Oregon Irrigation District

From: Scott Miltenberger, PhD, Partner, and Meta Bunse, Principal / Vice-President

Subject: Peer Review of National Register of Historic Places Nomination of Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)

At your request, JRP Historical Consulting, LLC (JRP) prepared this peer review of the National Register of Historic Places Nomination of the Central Oregon Canal Historic District (Ward Road-Gosney Road Segment). The nomination is dated June 27, 2017, but was revised and then resubmitted to the Oregon State Historic Preservation Office (SHPO) in November 2017. Patricia A. Kliewer, MPA, Historic Preservation Planner, of Kliewer Engineering and Associates prepared the nomination of the Ward Road-Gosney Road Segment and for the sake of brevity, it is referred to in this review as the “Segment Nomination.” JRP not only examined the Segment Nomination, but also considered prior surveys, inventories, and evaluations of the larger historic property of which it is a part – the Central Oregon Canal (COC) and Central Oregon Irrigation District (COID) – and consulted federal and Oregon state cultural resources guidance documentation for the nomination of historic districts. Additionally, in December 2017, JRP made a field survey of the Ward Road-Gosney Road Segment to confirm the prior findings of a survey of the entire Central Oregon Canal and COID system undertaken by ICF International (ICF) for COID and the United States Bureau of Reclamation (USBR) in 2014. Copies of our CVs are attached.

In our professional opinion, the Segment Nomination fails to make a compelling case for listing the segment of canal as a proposed historic district in the National Register of Historic Places (National Register) for several reasons. First and foremost, the nomination offers a muddled argument for the historical significance of the Ward Road-Gosney Road segment itself and questionable assessments of the historic integrity of proposed contributing elements of that district. Yet, its flaws are not limited to its internal deficiencies. The nomination is advanced without recognition of prior determinations of eligibility for the COC, and most critically ignores the historic context and registration requirements for listing such a property as detailed in the National Register-listed multiple-property document, *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978* (Carey and Reclamation MPD), in contravention of both federal and state guidance. This leads to a misplaced sense of importance of this particular canal segment, which ultimately is of little historical value on its own.

[Evaluation of the Segment Nomination, on Its Own Terms](#)

Evaluated solely on its own terms, the Segment Nomination falters with regard to its analysis of historical significance and historic integrity – the necessary requirements for National Register listing. The Ward

Road-Gosney Road Segment is nominated under significance Criterion A, one of the four criteria of significance for evaluating eligibility for listing in the National Register, “for its local significance...in the areas of Exploration and Settlement and Agriculture.” Specifically, for the period between 1905 and 1937, the nomination asserts that this canal segment:

...is significant for its association with the exploration and exacting mapping of the high desert that allowed an open canal system that conveyed water by gravity, and with the development of an ambitious canal system that provided necessary irrigation water for agriculture in the vast 47-mile long irrigated corridor between the Deschutes River in Bend and the Powell Butte area, and with the nationwide, private, marketing campaign that attracted thousands of settlers to the arid high desert.

None of the aspects of significance identified – i.e., “exploration and exacting mapping of the high desert,” “an open canal system,” conveyance of “water by gravity,” delivery of “necessary irrigation water for agriculture,” or a “nationwide, private, marketing campaign that attracted thousands of settlers to the arid high desert” – is in any way unique to this specific small segment of the COC, let alone to COID, Eastern Oregon, Oregon, the Great Basin, or the West. In fact, each of these are typical aspects of most public and private Western reclamation projects in the late 19th and early 20th centuries, and the Segment Nomination does not demonstrate how this typical and unremarkable canal segment is specifically significant.¹

These strained assertions notwithstanding, the nomination’s “Statement of Significance Summary Paragraph” emphasizes the canal’s engineering and the difficulties surmounted in its construction:

The nominated section is a significant stretch of the 112-year-old canal that carries an impressive 530 cubic feet per minute of water diverted from the Deschutes River through a structure crudely made of native rock and soils. The canal in the historic district was a critical stretch and was the most challenging to construct. While most of the gradually-narrowing canal traverses a relatively flat plateau, this stretch is the hilliest, rockiest and most uneven and has lava tubes and sudden drops in elevation to bridge. It took a year to complete and was originally under-sized, to meet demanding construction schedules with a shortage of laborers. That resulted in a bottleneck, and it was therefore widened twice (in 1907 and 1914) to facilitate water volumes downstream to deliver adequate water to settler in Powell Butte. The accomplishment of moving tons of rock, building the 350-foot long wooden flume, the 215-foot-long concrete Burt Chute and constructing miles of huge embankments on the downhill sides, exemplifies private enterprise and laborers overcoming the challenges presented by the region’s geology. It reflects the construction methods and materials used throughout the irrigation system. It took an extraordinary amount of private

¹ A search of one of the three National Park Service databases of National Register properties using the term “irrigation” indicates that there are 9 such National Register-listed canals, ditches, or other Western water conveyance systems not dissimilar to COID’s system and the COC. There are, of course, many other irrigation-related historic properties that have been “determined eligible,” and not included in these databases. See National Register of Historic Places, “Digital Archive on NPGallery,” <https://npgallery.nps.gov/nrhp>, last accessed March 5, 2018. Outside of academic monographs of the history of Western reclamation, *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*, prepared by JRP and the California Department of Transportation (Caltrans) in December 2000, is an example that furnishes evidence of the ubiquity of gravity-fed open canals for agricultural irrigation. A copy of this report is available online from Caltrans at: <http://www.dot.ca.gov/ser/downloads/cultural/CanalsDitches.pdf>, last accessed March 5, 2018.

capital, exception expertise in the utilization of technology, and enormous labor and horse-power to build the canal through the district.²

This argument is more appropriate for evaluating this canal segment under Criterion C of the National Register rather than under Criterion A. “To be considered for listing under Criterion A,” according to National Register *Bulletin No. 15*, “a property must be associated with one or more events important in the defined historic context,” such as “settlement,” and “the property must have an important association with the event or historic trends, and it must retain historic integrity.”³ Criterion C, by contrast, “applies to properties significant for their physical design or construction, including such elements as architecture, landscape architecture, engineering, and artwork.” Examples for engineering or infrastructure properties deemed important for design and construction include those that represent “technological advances.”⁴

For the Ward Road-Gosney Road Segment, the nomination claims that “exceptional expertise” was required to build a structure through rugged terrain that today conveys an “impressive” amount of water. The emphasis is clearly on the technology employed in the nominated segment – a Criterion C argument. Yet, the nomination perplexingly does not argue for listing this canal segment under the National Register under Criterion C. It instead attempts to use the rugged landscape as part of an argument that the segment is important to local farming under Criterion A, but all that this contention does is highlight that the farms in this area often failed because of the poor soil, despite the advent of irrigation:

Farmable land in the historic district was sold to settlers by the development companies under contract with the State of Oregon under the Carey Act, beginning in 1909. By 1937, settlement of irrigable and farmable land in the district was complete, but, some poor land with no water rights remained in public ownership. Settlers in the historic district included five women and people from Austria, Australia, Yugoslavia, Norway, England, and at least eight states. Typical of thousands of settlers in the area, a minority of settlers along the canal in the district, such as dairy farmers Phillip Burt and the Bradetich Brothers, became long-term, successful farmers. Most settlers supplemented the farm income by holding other occupations, because productivity of the land was marginal. Others were not successful farming the rocky, volcanic soil in the high desert with its short growing season and harsh winters, and sold their land. Others lost their land through COVID, tax or mortgage foreclosures, often in the 1920s and 1930s. One settler in the district rebought their land when finances improved.⁵

Even these claims fail to support historic importance under either a Criterion A or C argument. The last four sentences of the statement, in fact, undercut the purported historical significance of the canal to the

² United States Department of the Interior, National Park Service, National Register of Historic Places Registration Form, “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” prepared by Patricia A. Kliever, MPA, Historic Preservation Planner, Kliever Engineering and Associates, date July 27, 2017 [hereafter cited as “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)”], 1 and 44-45.

³ US Department of the Interior, National Park Service, “How to Apply the National Register Criteria for Evaluation,” by the staff of the National Register of Historic Places, finalized by Patrick W. Andrus, edited by Rebecca H. Shrimpton, *National Register Bulletin 15* (Revised 1991, 1995, 1997, Revised for Internet 1995, 2001, 2002), Part VI, “How to Identify the Type of Significance of a Property,” Criterion A: Event, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm#crit%20a, last accessed June 14, 2018.

⁴ “How to Apply the National Register Criteria for Evaluation,” Part VI, Criterion C: Design/Construction, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm#crit%20c, last accessed June 14, 2018.

⁵ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 45-46.

lands adjacent to the proposed historic district. The development touted as the result of the canal reads as minimal for the identified 1904-1937 period of significance. While there were settlers, only “a minority along the canal in the district...became long-term, successful farmers”; “Most settlers supplemented the farm income by holding other occupations, because productivity of the land was marginal,” and “Others were not successful farming the rocky, volcanic soil in the high desert, with its short growing season and harsh winters, and sold their land.” Additional land was “lost through COID, tax or mortgage foreclosures, often in the 1920s and 1930s,” within the period of significance identified by the nomination.

The body of the nomination, moreover, points out that much of the land on either side of the canal was either transformed into residential developments or brought into agricultural production well after 1937 – outside the nomination’s proposed period of significance, and unconnected to the Carey Act history that the canal and its contributing features allegedly exemplifies. According to the nomination, “[m]any of the lots in various phases of the Dobbin Acres subdivision on the northern side of the canal,” in the western quarter of the proposed historic district, “were platted since 1972.” “South of the centerline of the canal on the western third of the district” are lots within the “Arrowhead Acres subdivision, originally platted in 1966.” A 121-acre ranch, the establishment date not given in the nomination, was subdivided into the “Somerset subdivision” in 1976. The eastern three-quarters of the proposed historic district are ranches and large parcels, but three “non-historic houses look out onto the canal in the rural area.” The nomination also notes that much of the land within the eastern two-thirds of the proposed historic district “was settled between 1910 and 1937,” but “none of the original 40-acre parcels were completely cleared or cultivated due to surface rock, rock outcroppings, and lack of water rights.” The nomination sees this as evidence of the retention of the “historic appearance and setting” of undeveloped parcels, when this is in fact evidence of the lack of development which undercuts the nomination’s Criterion A argument for historical significance. The fact that western third of the proposed historic district “was divided into rural residential homesites and hobby farms after 1965” only further weakens the argument.⁶

With regard to historic integrity, the Segment Nomination advances a number of seemingly inaccurate or misleading claims about the 13 “contributing elements” it identifies for the proposed historic district. Integrity, per National Register guidance, “is the ability of a property to convey its significance.” While the “evaluation of integrity is sometimes a subjective judgment...it must always be grounded in an understanding of a property’s physical features and how they relate to significance.” This same guidance identifies seven aspects of integrity – location, design, setting, materials, workmanship, feeling, and association – that must be considered by evaluators of historic properties, and for which an eligible property “will always possess several, and usually most...”⁷ Fundamentally, a historic property or a contributing element of a property must date to, and reflect, its purported period of significance in order to possess historic integrity. In every case, the Segment Nomination dates the 13 elements of the proposed historic district to the period of significance – i.e., 1904 to 1937. Field surveys of COC made by ICF in 2014 that informed the *Carey and Reclamation* MPD (a document discussed in greater detail below)

⁶ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 12-13.

⁷ “How to Apply the National Register Criteria for Evaluation,” Part VIII, How to Evaluate the Integrity of a Property, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_8.htm, last accessed June 14, 2018.

identified more recent, post-1937 construction dates for nearly all of these elements, and JRP’s December 2017 field observations were consistent with ICF’s survey findings.

Table 1 offers a comparative analysis of the 13 contributing structures identified in the Segment Nomination, along with the ICF and JRP survey conclusions. ICF’s survey of the entire COID system was conducted over the course of several months and drew upon construction, operation, and maintenance data available from COID as well as historical research. As indicated in the table, ICF did not identify the same elements of the Ward Road-Gosney Road COC segment as significant or contributing. The “corrugated pipe,” the “Bear Creek Ranch Bridge,” and the “wooden flume remains” were not considered part of the COID system, and ICF’s survey did not differentiate “Headgate 12” and “Headgate 13.” Of the remaining elements within the proposed historic district, other than COC itself, ICF dated all to outside the nomination’s period of significance and, therefore, as “non-contributing elements.”⁸

JRP made a visual inspection of all the contributing and non-contributing structures identified in the Segment Nomination – except for the wooden flume remains, which could not be located (possibly due to ice in the canal at the time of inspection). In the case of the Ward Road-Gosney Road canal segment itself, JRP conducted a field visit and agrees with the dates of construction given in the ICF survey and the Segment Nomination. Yet, for every other structure, JRP’s field inspection conclusions were consistent with the ICF evaluations, and not the Segment Nomination.

For the eight “historic contributing headgates to ditches,” for instance, the nomination asserts “that [they] were installed during the period of significance” because the ditches – not the headgates – appear on historic maps. ICF, by contrast, offers specific date ranges based on more intensive research not limited to the analysis of historical maps, and JRP’s physical examination of these structures indicates construction consistent with the ICF dates. No citations to these historic maps, moreover, are given in the body of the nomination, and there is no discussion of the evidence that would lead to the conclusion that the present headgates date to the period of significance. The nomination does note that the two headgates for the “historic ‘B’ and ‘C’ Laterals are attached to circa 1960, poured-in-place, board formed, concrete headwalls that that replaced wooden headwalls.” JRP’s own inspection confirms this characterization of the physical condition of the present B and C lateral headgates. In fact, as noted in **Table 1**, ICF dated the B Lateral headgate (identified as “B Lateral 1: Headgate”) to the 1960s. The Segment Nomination’s characterization, if not an inadvertent admission of the likely date of the structure, is indicative of an alteration to the headgate structure itself. This raises the question of the historic integrity

⁸“Deschutes County, Central Oregon Irrigation District (COID), RLS 2014,” City: Bend, County: Deschutes, Survey Type: Standard RLS, Survey Sponsor: Central Oregon irrigation District, 1055 Southeast Lake Avenue, Redmond, OR 97756, (541) 548-6047, Surveyor Name: Christopher Hetzel, ICF International 210 2nd Avenue, Suite 550, Seattle, WA, (206) 80-2817, Survey Start Date: 2/24/2014, Survey End Date: 4/4/2014, Year Completed: 2014, Date Submitted to SHPO: 1/14/2015, # Elig. properties: 830, # Ineligible properties: 4190, Acreage Surveyed: 44800 (approx.)
http://www.oregon.gov/oprd/HCD/NATREG/docs/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978/COID_Survey_Complete.pdf, last accessed March 6, 2018.

TABLE 1. COMPARATIVE ANALYSIS OF IDENTIFIED CONTRIBUTING STRUCTURES

| <i>Element Name or Description</i> | | <i>Construction Date and Conclusion</i> | | | <i>JRP Field Survey Observations and Conclusions</i> |
|--|--|---|--|--|---|
| Segment Nomination* | ICF Survey | Segment Nomination | ICF Survey | Conclusions Differ | |
| "Canal with associated embankments on either side and the ditch rider road on north side." | Central Oregon Canal | 1905, enlarged in 1907 and 1914; Contributing | ca. 1907 / 1904-1907; Contributing | | ICF Survey examined COC as a whole and did not parse out the dating of every segment of canal. JRP field survey suggests that the Ward Road-Gosney Road segment was likely constructed in the early 1900s, as indicated in both the ICF Survey and Segment Nomination. |
| "Corrugated pipe across canal on mortared rock piers" | Not identified as part of COID | 1917-1921; Contributing | Not identified as part of COID | X | ICF Survey did not recognize these elements as part of the COID system. JRP field survey concurred. Additionally, JRP's visual inspection did not agree with the construction dates given in the Segment Nomination and raised questions as to the historic integrity of these elements. |
| "Bear Creek Ranch Bridge on concrete piers" | Not identified as part of COID | ca. 1928; Contributing | Not identified as part of COID | X | |
| "Burt Chute and Stilling Pond" | Central Oregon Canal: Chute | 1905-1911; Contributing | ca. 1945 / 1940-1949; Contributing | | JRP field survey concurred with ICF Survey construction date assessment and evaluation conclusions. |
| "Wooden Flume Remains" | Not identified as part of COID | ca. 1911; Contributing | Not identified as part of COID | X | ICF Survey did not recognize this element as part of the COID system. JRP field survey could not locate these remains, possibly due to ice in the canal. This fact, together with the characterization of the element in the Segment Nomination, raises questions as to the historic integrity of this element. |
| Headgate 1 (labeled COC 8) | Central Oregon Canal, Lateral COC 8: Headgate | "during the period of significance"; Contributing | ca. 1965 / 1960-1968; Non-Contributing | X | JRP field survey concurred with ICF Survey construction date assessments for these elements and evaluation conclusions. |
| Headgate 2 (labeled COC 9) | Central Oregon Canal, Lateral COC 10: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | |
| Headgate 3 (labeled COC 10) | Central Oregon Canal, Lateral COC 10-1: Headgate | | ca. 2000 / 1990-2014; Non-Contributing | X | |
| Headgate 5 (labeled COC 12) | Central Oregon Canal, Lateral COC 12 1: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | |
| Headgate 6 (associated crude concrete weir over rocks, labeled COC 13) | Central Oregon Canal, Lateral COC 13 1: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | |
| Headgate 7 (labeled "B" Lateral) | Central Oregon Canal, B Lateral 1: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | |
| Headgate 12 (associated crude concrete and metal weir, labeled "C" Lateral) | Central Oregon Canal, C Lateral: Headgate | | | ca. 1980 / 1970-1989; Non-Contributing | |
| Headgate 13 (shares headwall with Headgate 12, labeled COC 15) | | | | | |

* The Segment Nomination also listed 11 non-contributing structures not shown here. Among these was one structure, "Headgate 4," that the ICF reconnaissance survey identified as contributing; JRP concurred with this assessment.

not only of these particular headgates, but also the others whose physical appearance in JRP's inspection is more suggestive of ICF's dating.⁹

In a similarly dubious fashion, using "a 1911 map of the irrigation system drawn by the State Engineer," and a statement by one-time resident Richard Torkelson that he used to fish in the canal in the 1940s, the nomination dates Burt Chute, "a poured concrete structure," and its associated pond to "1905-1911." While some form of the chute may have existed by about 1911, the nomination fails to address if the chute was changed over time, if the concrete replaced an earlier wooden structure, if the concrete was repaired at some point, or if the chute's dimensions were altered. Each of these bares upon the historic integrity of the structure, and if it was unchanged, the nomination should endeavor to offer some evidence. JRP's field observation, by contrast, indicates that ICF's assessment that the existing chute was constructed in the 1940s – outside the period of significance given in the Segment Nomination – is likely more accurate.¹⁰

Potential issues with integrity and historic association also exist with the Bear Creek Ranch Bridge. The nomination alleges that the bridge was originally constructed "around 1928 by the property owner, Mike Dragosavac, and neighbors, including Dragan Mirich." This bridge was thus not constructed in conjunction with the original design of the canal or canal system, but separately and more than 20 years later. It is not directly associated with the design of the COC or COID, which raises the question as to why it is included in the nomination as an element of the canal segment at all. The nomination maintains that the bridge was built as a consequence of that canal. Yet, by that logic, any and all historical buildings erected in the vicinity of the canal between 1904 and 1937, and with sufficient integrity, would be included in that same district. Additionally, no documentation is offered for the bridge's date; the sole citation is to an "Interview with "Gary and Suzanne Grund," the current property owners.

Even if the bridge was directly connected to the canal's construction, dated to the period of the significance, and embodied the overall significance of this canal segment, issues with the structure's integrity nevertheless remain. The nomination goes on to note that the Grunds "replaced 43 of the original 57 rotting 4" x 12" fir decking planks with pressure treated lumber, in kind," and used "bolts" to affix this new planking. At some unspecified point in time, the nomination states two additional steel "I" beams were installed along with a "non-historic 1' diameter white plastic water pipe...suspended from brackets along the western edge of the bridge, giving the bridge a false wavy appearance." JRP's field survey confirmed this description of the present structure, which given the condition of its lumber, its steel supports, and the appended water pipe, is not evocative of a structure from the late 1920s as the nomination asserts. The "in kind" replacement of lumber notwithstanding – itself problematic because the nomination has not established the type of wood or its condition, circa 1928 – alterations in materials and workmanship have diminished both integrity of the bridge and association that it might have had (if any) to a canal that dates back to the early 1900s.¹¹

More troubling is the nomination's contention that a "series of deteriorating lumber, partially buried in year-round standing water and silt" piers that once "formed part of a wooden flume that bridged the lowest point in the canal in the historic district" is a contributing element of the proposed historic district. These pier remnants

⁹ "Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)," 26-28.

¹⁰ "Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)," 22.

¹¹ "Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)," 21.

represent the last visible traces of a former structure that has completely lost integrity and can no longer contribute to the historic COC property. The ICF survey did not note the existence of these piers, nor was JRP able to locate them during its field survey. The nomination offers photographic evidence of “six rows of seven piers.” These remnant structures, through uncited map evidence and cited interviews with COID ditch riders Jim Hollander and Robert Stephen, are dated to 1905 as the wooden flume purportedly was built at the same time as this segment of COC. A wooden flume may very well have existed at the point in the canal claimed by the nomination. However, such a structure is no longer in this place, and the piers themselves are – as noted by the nomination itself – difficult to see. These features do not retain the required aspects of integrity necessary to be considered contributing elements of either the segment, or the larger COC.¹²

The Implications of Prior Determination of Eligibility for the Central Oregon Canal

In addition to its internal deficiencies, the Segment Nomination fails to recognize that COC has long been recognized for its historic significance and potential for listing in the National Register, which makes questionable the necessity of the Segment Nomination itself. Entries in the Oregon Historic Sites Database, a publicly-available online database maintained by SHPO, show that as far back as the early 1990s the entirety of COC was previously determined eligible.¹³ In June 1991, Oregon Department of Transportation (ODOT) prepared a Request for Determination of Eligibility (DOE) for COC, under the historic name “Deschutes Irrigation and Power Company Canal” in conjunction with “Bend Parkway project.”¹⁴ Per federal regulations, a DOE “is a decision by the Department of the Interior that a district, site, building, structure or object meets the National Register criteria for evaluation although the property is not formally listed in the National Register.” Although properties determined eligible are not entitled to “such benefits as grants, loans, or tax incentives that have listing on the National Register as prerequisite” (36 CFR 60.3), Section 106 of the 1966 National Historic Preservation Act and its implementing regulations define “historic properties” as those not only listed in the National Register, but also those determined eligible for listing in the National Register, or eligible for listing in the National Register (36 CFR 800.16).

After ODOT made its request for a DOE, ODOT treated COC as an eligible property in the context of its Bend Parkway project. In May 1998, the agency prepared and submitted an Historic American Engineering Record (HAER), “Deschutes Irrigation and Power Company Canal (Central Oregon Irrigation Canal),” to the National Park Service. HAERs are often prepared to mitigate for adverse effects to “historic properties” affected by of “Federal undertakings” (such as federally-funded projects or federally-administered grants). Thus, in documenting the Deschutes Irrigation and Power Company Canal “located within the Bend Parkway project area,” “a section of the

¹² “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 23.

¹³ Oregon Parks & Recreation Department, Oregon Heritage, State Historic Preservation Office, “Oregon Historic Site Database,” <http://heritagedata.prd.state.or.us/historic/>, last accessed June 14, 2018.

¹⁴ [Oregon] State Parks and Recreation Department, Cultural Property Inventory and Request for a Determination of Eligibility, Historic Name: Deschutes Irrigation and Power (D.I.P.) Company Canal, Common Name: Central Oregon Irrigation (C.O.I.) Canal, Form Prepared By: Dwight A. Smith, Cultural Resources Specialist, Agency: Oregon Department of Transportation, Date: June 1991.

resource...[that] appears representative of the resource,” this HAER suggests that COC had been determined eligible by that time.¹⁵

The ODOT studies may have contributed to a decision to make a formal study of the canal eight years later, when COID secured a water conservation grant from the US Bureau of Reclamation (USBR). This federal grant, much like the Bend Parkway work by ODOT in the 1990s, prompted an effort to determine COC eligibility for project compliance with Section 106 of the NHPA. In 2006, Paul G. Claeysens and Jan Tomlinson prepared “Determination of National Register of Historic Places Eligibility for Historic Agricultural Resources in Central Oregon: Central Oregon Irrigation District” (also known as “Historic Agricultural Resources in Central Oregon”). The disposition of this report is unknown, and whether SHPO provided concurrence. A copy was not available through the SHPO’s Oregon Historic Sites Database, and JRP only found references to it in other public-available documents on the SHPO website.¹⁶

USBR issuance of a WaterSMART grant to COID for monies to pipe the COC I-Lateral in 2012 finally brought clarity to the situation. Pursuant to the Section 106 process, the federal agency:

...consulted with the State Historic Preservation Office (SHPO), resulting in the finding that the [COID] system is historically significant, and that the piping project would adversely affect it. This effect would be compounded by planned future piping efforts anticipated to effectively replace the open system with a piped system.

This finding, made in consultation with SHPO, that the COID system – inclusive of COC, and therefore also the segment of COC between Ward Road and Gosney Road – had the same effect as a National Register listing of COID and COC for the purposes of Section 106. As a result, USBR concluded that the district piping project would adversely affect the canal and thus mitigation was necessary to address those effects, and in February 2014, USBR, SHPO, and COID executed a Memorandum of Agreement to stipulate the specific treatments. Among the mitigation measures adopted was the preparation of a National Register multiple property document (MPD) that used COID and Vale Irrigation District (Vale ID) as a basis for determining and nominating *other* eligible districts – and not additional districts within either COID or Vale ID, as both of these were recognized as already eligible. In October 2016, eight months before the Segment Nomination was first completed and submitted to SHPO, Christopher Hetzel, Senior Architectural Historian, ICF International (ICF), finalized the *Carey and Reclamation* MPD as part of the agreed-upon mitigation for the federally-funded piping project.¹⁷

¹⁵ Historic American Engineering Record, “Deschutes Irrigation and Power Company Canal (Central Oregon Irrigation Canal),” HAER No. OR-63, Report Prepared by: Oregon Department of Transportation, Date: May 26, 1998; and National Park Service, “Historic American Engineering Record, Guidelines for Historical Reports” (2008, updated December 2017), 1, available from <https://www.nps.gov/hdp/standards/HAER/HAERHistoryGuidelines.pdf>, last accessed June 14, 2018.

¹⁶ The Claeysens and Tomlinson report is referenced in the February 2014 Memorandum of Agreement among the USBR, SHPO, and COID, and COID’s July 2017 NRHP nomination of the canal’s Brasada Ranch Segment. The MOA and the nomination may be downloaded from the website, Oregon Parks & Recreation Department: Oregon Heritage: National Register, “Carey and Reclamation Acts Irrigation Projects in Oregon 1901-1978,” <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978.aspx>, last accessed June 14, 2018.

¹⁷ Oregon Parks & Recreation Department: Oregon Heritage: National Register, “Carey and Reclamation Acts Irrigation Projects in Oregon 1901-1978,”

The Segment Nomination is silent on this history of COC’s previous National Register eligibility. While the nomination is not required to offer this background, the absence of recognition evidences a lack of professional due diligence, misleads the uninformed reader, and conveys a false sense of the importance of listing the Ward Road-Gosney Road segment. The Segment Nomination proposes that a portion of an already determined eligible – and now National Register listed – historic property should be listed again. This proposal is unnecessary because COC and COID are already recognized as historic properties, with extensive previous documentation.

[The Critical Importance of the *Carey and Reclamation* MPD](#)

The *Carey and Reclamation* MPD referenced above is critically important to the evaluation of COC – yet the Segment Nomination attempts to stand apart from it, contrary to both federal and state cultural resources guidance documentation. An MPD is an essential “management tool” for historic preservation; it is intended to facilitate the evaluation of other historic properties of a similar type or nature, or within a specific geographical area. According to National Register *Bulletin 16*, “How to Complete the National Register Multiple Property Documentation Form,”

The Multiple Property Documentation Form streamlines the method of organizing information collected in surveys and research for registration and preservation planning purposes. The form facilitates the evaluation of individual properties by comparing them with resources that share similar physical characteristics and historical associations. Information common to the group of properties is presented in the Multiple Documentation Form, while information specific to each individual building, site, district, structure, or object is placed on an individual registration form. As a management tool, the thematic approach can furnish essential information for historic preservation planning because it evaluates properties on a comparative basis within a given geographical area and because it can be used to establish preservation priorities based on historical significance.

An MPD is usually “not a nomination in its own right, but serves as a basis for evaluating the National Register eligibility of related properties,” and

...may be used to nominate and register thematically-related historic properties simultaneously or to establish the registration requirements for properties that may be nominated in the future...The name of the thematic group, denoting the historical framework of nominated properties, is the **multiple property listing** [emphasis in original].

Properties nominated through a multiple property listing bear the same burden as those properties nominated independently: they must possess both historical significance and physical integrity to the time period of that significance, in addition to meeting the registration requirements presented in the MPD. The only difference is that properties nominated through a multiple property listing rely upon an MPD for the historic context to

<http://www.oregon.gov/oprd/HCD/NATREG/Pages/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978.aspx>, last accessed June 14, 2018; and Memorandum of Agreement No. R14MA13733 Among the US Bureau of Reclamation, the Oregon State Historic Preservation Office and Central Oregon Irrigation District, for Piping of a Segment of the I-Lateral, Alfalfa Vicinity, Deschutes County, Oregon, executed in February 2014, section 3.B.2(a), page 4, available at:

http://www.oregon.gov/oprd/HCD/NATREG/docs/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978/12_0948.pdf, last accessed June 14, 2018.

evaluate that significance within one or more of the four “National Register Criteria for Evaluation,” and utilize the standards for the integrity of properties given in the MPD to determine eligibility.¹⁸

The *Carey and Reclamation* MPD, as noted above, took the Central Oregon Project, a Carey Act project, “privately owned and operated by the Central Oregon Irrigation District,” and the Vale Project, a federal reclamation project, “operated and maintained by Vale Irrigation District” as case studies. Closely examining the histories of these two projects, the MPD addressed “the development of agricultural irrigation by the United States government within the geographic context of the central and eastern portions of the State of Oregon” and “provide[d] a framework for the identification and evaluation of extant irrigation system in these areas, pursuant to National Register eligibility criteria.”¹⁹

As part of the research necessary for preparation of the *Carey and Reclamation* MPD, ICF made “reconnaissance-level historic resources surveys” of both the COID and Vale ID systems in 2014. This effort entailed “background research and collecting data/information” about the districts, as well as “an on-the-ground reconnaissance-level survey of each irrigation system and its features,” and “creation of geographic information system (GIS)-based maps and data.” The COID portion of the survey was completed in January 2015. This survey data “was used to evaluate the integrity of the irrigation systems’ individual components, identify eligible and non-eligible contributing features, and provide the basis for” for both the MPD’s historical context and its discussion of the standards of significance and integrity of various property types within such irrigation systems. As a result, SHPO and USBR agreed:

These two inventoried systems are sufficient to establish characteristic elements and historical trends of both historic contexts identified in this MPD... Because these two projects (Central Oregon Project and Vale Project) served as case studies to inform the development of the contexts and physical characteristics of these two types of irrigation conveyance systems, as well as providing illustrative examples of the historical patterns of development and the resulting structural representations of those contexts, they are not subject to the registration requirement that an irrigation project have a corresponding project-specific historic context, appended to this MPD.²⁰

The *Carey and Reclamation* MPD was first submitted to the Oregon State Advisory Committee on Historic Preservation (SACHP) in June 2016. Following completion of the committee’s recommended revisions in October 2016, the MPD was accepted in February 2017 “on the condition that the SHPO and BoR [USBR] consult to address BoR concerns.” Those concerns addressed, the MPD received SHPO concurrence in May 2017, and was accepted

¹⁸ US Department of the Interior, National Park Service, “How to Complete the National Register Multiple Property Documentation Form,” by Antoinette J. Lee and Linda F. McClelland, *National Register Bulletin 16* (Revised 1999, originally Published 1991), Section II: Introduction, https://www.nps.gov/nr/publications/bulletins/nrb16b/nrb16b_IIintroduction.htm, last accessed February 15, 2018.

¹⁹ United States Department of the Interior, National Park Service, National Register of Historic Places Multiple Property Documentation Form, *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, prepared by Christopher Hetzel, Sr. Architectural Historian, ICF International, date 10/31/2016, Oregon State Historic Preservation Office certification 5/20/2017, National Register of Historic Places, Date Listed 7-10-17, NRIS No. MC10001302, Oregon SHPO, E-2 and H-67 available at the following link and last accessed June 14, 2018, <http://www.oregon.gov/oprd/HCD/NATREG/docs/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20%20in%20Oregon%201901-1978/CareyAndReclamationActsIrrigationProjectsInOregon1901-1978.pdf>, [hereafter *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, page].

²⁰ *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, H-67, H-69, and F-32 – F-33.

by the Keeper of the National Register in July 2017 – just a few weeks following the first submission of the Segment Nomination.²¹

The first page of the Segment Nomination indicates that the proposed historic district “is not part of a multiple property listing.” This is only technically correct as the *Carey and Reclamation* MPD was not “listed” in the National Register when the Segment Nomination was first completed in June 2017. However, both the MPD and the 2014 ICF survey that informed its findings have been available online from SHPO since December 2016, almost a year before the resubmission of the Segment Nomination in November 2017. Other than a brief citation to an earlier draft of the MPD (footnote 397, on page 107), the Segment Nomination makes no note of the listed *Carey and Reclamation* MPD and does not apply any of its context or registration requirements. Given NPS guidance for use of MPDs then, why was the Segment Nomination not advanced as part of a multiple property listing? Why does the nomination ignore this important “management tool”?²²

The nomination also appears to eschew existing SHPO guidance that likewise stresses the importance of consulting MPDs and making use of their historic contexts and registration requirements. SHPO’s December 2013 *Guidance for Recording and Evaluating Linear Cultural Resources*, “long, narrow individual structures” such as “canals, irrigation and mining ditches,” was intended “to assist the preparers of determinations of eligibility by illustrating key considerations, approaches, and significance elements for each type [of linear feature].” Among other directives, this guidance calls upon “researchers,” “[a]s part of the literature review” to:

investigate whether or not a Multiple Property Document exists that may pertain to the resource type. Such documents establish what types of resources are covered by its provisions, and typically establish general and specific registration requirements that establish in detail the integrity and criterion standards required for eligibility for listing in the NRHP.²³

Once more, one is left to wonder why the Segment Nomination fails to follow clear guidance intended to serve the broader public interest in historic preservation. That the nomination does not do so, does not address in some form the *Carey and Reclamation* MPD – whether to advance the proposed historic district as part of a multiple property listing, under the cover of the MPD, or to argue against the MPD’s findings – is a critical oversight, or a disingenuous omission. The historical significance of the segment (if any individual significance could be attributed to the segment) and its integrity can only be appreciated within the context of the historical significance and integrity of the entire COID system, which the MPD provides and the Segment Nomination does not.²⁴

Little Historical Value to the Public

The strained arguments for historical significance and integrity, the lack of recognition of prior determinations of eligibility for the COC and the larger COID system, and the failure to address the *Carey and Reclamation* MPD per

²¹ *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, 1.

²² “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)”, page 1. [The earlier draft of the MPD cited in the Segment Nomination is, “Draft National Register of Historic Places Multiple Property Documentation Form, Irrigation Projects in Oregon, 1850-1964,” January 12, 2015.]

²³ Oregon Parks and Recreation Department, Oregon State Historic Preservation Office, *Guidance for Recording and Evaluating Linear Cultural Resources* (December 2013), 6.

²⁴ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 1, 45, and 106-111.

federal and state guidance, all undermine the persuasiveness of the Segment Nomination. Collectively, these deficiencies prevent the nomination from articulating effectively a reason (or, reasons) for listing the proposed Ward Road-Gosney Road segment as a historic district. While the Segment Nomination attempts to justify its purpose on the questionable basis that this particular COC segment is distinctively representative of a historically significant Carey Act project, it does not support its own claim. Ultimately, there appears to be little historical value to the public in listing this segment of canal – and a correspondingly large management challenge, should it be listed.

The Segment Nomination, in its closing, attempts to justify the proposed historic district boundaries and compares the COC and the Central Oregon Project to other public and irrigation ventures. It even compares the proposed historic district to another COC segment that has since been determined eligible for listing in the National Register. The boundaries of the proposed district, the Segment Nomination explains, were “selected [to] include a stretch of canal that is long enough to include the various slopes and flat terrain that the canal passes through during its 47 mile-length,” and “the typical elements of an irrigation system: the historic canal, two laterals, one sub-lateral, headwalls, catwalks, flumes, embankments and many ditches.”²⁵ The nomination further argues the proposed historic district is emblematic of the development that the entire canal brought to Central Oregon “The historic district,” it insists, “uniquely demonstrates the power of the canal and irrigation water to attract settlers, and the progression of settlement from large to smaller parcels over the past 100 years.” The argument continues, claiming that no other public or private irrigation structure – including those now operated by Arnold Irrigation District, Tumalo Irrigation District, and Swalley Irrigation District – were “of the size and scale of the Central Oregon canal and none had the financial impact on development of the high plateau.” “The Central Oregon Project,” the Segment Nomination maintains, “was the largest, most expensive, most profitable and most successful private irrigation development project under the Carey Act in the region.” The proposed historic district, so the argument claims, “is an exemplary 3.4-mile-long living stretch of the historic canal with very few alterations and many intriguing components.”²⁶

Given the numerous issues with the Segment Nomination discussed above, none of the points advanced by the nomination demonstrate that this particular segment of the COC is somehow individually historically important and distinct from the already determined eligible canal of which it is part. The nomination ignores both the longstanding recognition that the entire COC is historically significant, and that the *Carey and Reclamation* MPD and COID 2014 survey identified the COC as a contributing (eligible) component of the COID system. What then, the reader is left to wonder, is the point to listing this particular segment? What is separately, historically unique about this segment that it would merit listing? Neither of these questions are answered in the nomination. Appeals to the character of the nominated canal segment similarly falter in the face of several inconsistencies and deficiencies in the arguments for historical significance and historical integrity of contributing elements presented in the nomination, all addressed above.

Listing in the National Register is a public declaration that a property is historically significant and possessive of sufficient historical integrity to display that significance, and thus is worthy of preservation. Listing also creates a management responsibility. The Ward Road-Gosney Road canal segment, as it is, is neither historically significant

²⁵ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 125.

²⁶ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 105-110.

nor possessive of sufficient historical integrity to merit listing. Moreover, COID already bears the burden for the appropriate treatment of the larger historically-significant Central Oregon Canal. Should the Segment Nomination receive SHPO concurrence and be accepted by the Keeper, however, both SHPO and COID would face management issues caused because the Central Oregon Canal would be listed twice: once as a canal segment, and another for its entire 47-mile length. This specific segment would have a different period of significance than the rest of the COC, and there would be SHPO concurrence with two different sets of contradictory contributing elements because most in the Ward Road to Gosney Road segment were actually identified as non-contributing elements by the 2014 ICF survey. Laying aside the dubious historical value to the public of a double – and truly, conflicting – listing of the same property, the potential to hamper successful management of the historic property is very high in these circumstances. Far from creating certainty about what properties rightly ought to be preserved, it would perpetuate an uncertainty among members of the public that would be borne by both COID and SHPO.

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Emphasis on cultural, urban, and environmental history, UC Davis History Department / Reed Smith Incoming Graduate Student Fellowship

A.B., History, Colgate University, Hamilton, New York, 1999

Emphasis on United States History, *summa cum laude*, Phi Beta Kappa, High Honors in History, Honors in the Core Curriculum

BUSINESS AND PROFESSIONAL CREDENTIALS

JRP Historical Consulting, LLC:

- Partner / Consulting Historian, 2017-Present
- Senior Historian I and II, 2014-Present
- Staff Historian I, II, and III, 2006-2014

Member, American Historical Association (Pacific Coast Branch), 1999-Present

Member, American Society for Environmental History, 2006-Present

Member, National Council of Public History, 2006-Present

Chair, City of Davis Historical Resources Management Commission, 2017-2018 (Commissioner since 2012)

Meets and exceeds United States Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61) under History and Architectural History

EXPERT WITNESS DEPOSITION AND TESTIMONY

Matt Pear and Mark Pear, Plaintiffs, vs. City and County of San Francisco, a municipal corporation, Does, 1-50, inclusive, Case No. 112CV227801, Superior Court of the State of California, County of Santa Clara. Expert witness testimony concerning a family's historical use of parcel. and urban/suburban/industrial development of Santa Clara County in the 1950s as it related to the Hetch Hetchy Aqueduct Right of Way. San Francisco: City and County of San Francisco, City Attorney's Office, San Francisco Public Utilities Commission, 2017.

In Re the General Adjudication of All Rights to Use Water in the Gila River System and Source. Civil Nos. W-1, W-2, W-3, and W-4, Contested Case No. W-1-11-605, Maricopa County Superior Court, State of

Arizona. Expert historian report, and expert witness deposition and trial testimony concerning the history of Fort Huachuca, Arizona, its changing missions, population, and water use, for the purposes of a federal reserved water right claim. Washington, DC and Denver: United States Department of Justice, 2012 – 2016.

Modesto Irrigation District vs. Heather Robinson Tanaka, et al. Case No. 34-2011-00112886, Superior Court of the State of California, County of Sacramento. Expert witness deposition and trial testimony concerning the riparian status of a parcel in San Joaquin County and the historical land and water uses on that parcel. Sacramento: O’Laughlin & Paris LLP for Modesto Irrigation District, 2014 – 2015.

HISTORICAL RESEARCH AND CONSULTING SERVICES EXPERIENCE

Historical Research of Military Operations at McClellan United States Air Force Base, Sacramento, CA, concerning use of chromium and chromium products, 2018 – Present.

Peer Review of National Register Nomination of Central Oregon Canal (Ward Road-Gosney Road Segment) Historic District. Bend, OR: Central Oregon Irrigation District, 2017 – Present.

Riparian and Pre-1914 Water Rights Investigation for Agricultural Parcels in Merced County, CA, 2017 – Present.

Riparian and Pre-1914 Water Rights Investigation for Agricultural Lands in the Kings River Basin, Fresno County, CA, 2017 – Present.

Historical Research of Native American / Federal Reserved Water Rights Claims. Humboldt County, 2017 – Present.

Historical Research of Water Rights for a Parcel in Stanislaus County. Sacramento: O’Laughlin & Paris, LLP, 2017 – Present.

Historical Research on Dams and Flood Control Operations on the Boise River. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2015 – Present.

Research Related to the History of an Interstate Compact. Sacramento: Somach Simmons & Dunn, 2012 – Present.

In Re the General Adjudication of Rights to the Use of Water from the Coeur d’Alene-Spokane River Basin Water System. District Court of the Fifth Judicial District of the State of Idaho, Twin Falls, ID. Assisted in the research, data management, and preparation of an expert report regarding water rights claims made in the general adjudication of water rights in the Coeur d’Alene-Spokane River Basin, Idaho. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2010 – Present.

Potentially Responsible Parties (CERCLA) Title Research for a Parcel in Tulare County. Rancho Cordova: Geocon Consultants, Inc., 2017.

Historical Research of Water Rights acquired by the City of Santa Cruz. Santa Cruz: Atchison, Barisone, Condotti & Kovacevich, 2016 – 2017.

In Re the General Adjudication of Rights to the Use of Water from the Snake River Drainage Basin Water System, State of Idaho v. United States; State of Idaho; and all unknown claimants to the use of water from the Snake River Drainage Basin Water System, District Court of the Fifth Judicial District of the State of Idaho, Twin Falls, ID. Assisted in the research, data management, and preparation of several expert and consultant reports related to Idaho state water rights from statehood to the present of the more than 158,000 water claimants in the Snake River Drainage Basin, Idaho. These studies involved reservoir storage rights, appropriative water claims, groundwater use, submerged lands, hydro-electric power generation, municipal water uses, federal reserved water rights for military, forest, and Indian reservations, tribal water claims, and legislative histories. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2006 – 2016.

Historical Research Concerning Reclamation District Assessments in Colusa County. Sacramento: Somach Simmons & Dunn, 2016.

Gallo Cattle Company v. Lincoln White Crane Hunter Farms; Merced Irrigation District, et. al. Case No. CV00105, Superior Court, State of California, County of Merced. Assisted in the collection of historical documentation in support of an expert witness deposition and planned testimony regarding Crocker Huffman Land and Water Company history, development of its irrigation and drainage system (later acquired by MID), and the background of a 1918 agreement to flow water from Merced County Drainage District (later acquired by MID) to a private landowner. Walnut Creek: Miller Starr Regalia; and San Francisco: Duane Morris, LLP, 2013-2014.

Cortopassi Partners v. California Department of Water Resources, et al. Case No. CV034843, Superior Court, State of California, County of San Joaquin. Assisted in the collection of historical documentation in support of an expert witness deposition and planned testimony concerning public and private dredging on the Mokelumne River. Sacramento: California Department of Justice, 2012-2013.

Research regarding Pre-1914 Water Rights of Woods Irrigation Company, San Joaquin County, CA. Sacramento: State Water Contractors and San Luis and Delta-Mendota Water Authority, 2015 – 2016.

Riparian Water Rights Investigation for Agricultural and Wetlands in the Cosumnes River watershed, Sacramento County, CA. Sacramento: Sacramento County Counsel, 2015-2016.

Riparian and Pre-1914 Water Rights Investigation for Agricultural Lands in the Salinas River Basin, Monterey County, CA, 2015-2016.

Riparian and Pre-1914 Water Rights Investigation for agricultural lands adjacent to the Sacramento River, Yolo County, CA, 2015-2016.

Historical Research and Analysis of the Construction of Cline Falls Dam and Power Plant on Deschutes River, Oregon. Bend: Holland & Knight, LLP, 2015.

Historical Research of Shipbuilding Operations at Swan Island Shipyards, Port of Portland, Oregon. San Francisco: Bassi, Edlin, Huie and Blum, 2015.

Historical Research of Land Uses and Development of property west of Hunters Point, San Francisco. San Francisco: Bassi, Edlin, Huie and Blum, 2015.

- Report on Riparian and Pre-1914 Appropriative Water Right Claims on Three Parcels in eastern Contra County, CA. Oakland: East Bay Municipal Utility District, 2014.
- Research Regarding Historical Background of Groundwater Pumping and Litigation in the 1950s among Orange County, Riverside, and San Bernardino Area Water interests in the Upper Santa Ana River Basin in Southern California. Redlands: Thomas McPeters, Esq., McPeters McAlearney Shimoff & Hatt, 2013-2015.
- Land Use History, Union Lumber Company and adjacent properties, Fort Bragg, CA. San Francisco: Bassi, Edlin, Huie and Blum, 2013-2014.
- Research on a Pre-1914 Appropriative Water Rights Claim for a Ranch in Merced County. Merced: Merced Irrigation District, 2013.
- Investigation of Historical Reclamation and Land Use of Union Island, San Joaquin Delta, CA. Sacramento: O'Laughlin & Paris LLP for Modesto Irrigation District; Kronick, Moskovitz, Tiedemann & Girard for State Water Contractors; and Diepenbrock Harrison for San Luis and Delta-Mendota Water Authority, 2011-2013.
- Research related to Water Storage, Diversion and Use by American Falls Reclamation District No. 2 for the *General Adjudication of Rights to the Use of Water from the Snake River Drainage Basin Water System, State of Idaho v. United States; State of Idaho; and all unknown claimants to the use of water from the Snake River Drainage Basin Water System*, Subcase No. 39576, District Court of the Fifth Judicial District of the State of Idaho, Twin Falls, ID. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2011.
- Historical Research regarding Operation of and Water Use at a Power Plant on Lytle Creek, San Bernardino County, CA for California Public Utilities Commission Hearings. Fontana: Fontana Water District, and Rosemead: San Gabriel Water District, 2011.
- East Bay Municipal Utilities District: Water Rights Investigation, San Joaquin, Amador, and Calaveras counties, CA. Oakland: East Bay Municipal Utilities District, 2011.
- Reclamation and Land Use History Investigation: Roberts Island, San Joaquin Delta, CA. Sacramento: O'Laughlin & Paris LLP for Modesto Irrigation District; Kronick, Moskovitz, Tiedemann & Girard for State Water Contractors; and Diepenbrock Harrison for San Luis and Delta-Mendota Water Authority, 2010-2014.
- Investigation of Historical Delineations of the Rialto Groundwater Basin, San Bernardino, CA. Redlands: Thomas McPeters, Esq., McPeters McAlearney Shimoff & Hatt, 2010-2013.
- Investigation of Historic Water Development at Two Well Sites: Chino Groundwater Basin. Rancho Cucamonga: Cucamonga Valley Water District, 2010-2012.
- Central Valley Flood Protection Plan (CVFPP): Programmatic Environmental Impact Report (PEIR), historic setting and resources sections, California. Sacramento: California Department of Water Resources, 2010–2012.
- Susan River Pre-1914 Water Rights Investigation, Lassen County. Chico: O'Laughlin & Paris LLP, 2010.
- Lower Lytle Creek Power Plant and Appurtenant Facilities: Construction and Water Use History. Redlands: Thomas McPeters, Esq., McPeters McAlearney Shimoff & Hatt, 2010.

- History of Groundwater Development and Use in Antelope Valley to Fulfill the Changing Military Missions of Edwards Air Force Base, Kern, San Bernardino and Los Angeles Counties, CA. Denver: US Department of Justice, 2009, 2012-2014.
- Due Diligence Research of Historical Land Uses, and Pre-1914 Appropriative and Riparian Water Rights associated with an 8,000-acre Historic Ranch in Madera County, CA. Rocklin: Law Offices of Matthew Emrick, 2009-2010.
- Legislative history of California's "Area of Origins" laws (County of Origin, Water Code Sections 10500-10506, and the Watershed Protection Statute, Water Code Sections 11460-11465). Stockton: Herum/Crabtree Attorneys, 2009-2010.
- History of Fontana Union Water Company's Lytle Creek Diversion on the San Bernardino National Forest. Fontana: Fontana Union Water Company; Rancho Cucamonga: Cucamonga Valley Water District; and Rosemead: San Gabriel Water District for submission to the Chief Counsel for Natural Resources, US Department of Agriculture, 2009.
- Sacramento River and San Joaquin River Levees: Research on history of construction, maintenance, repair, and performance, California. Sacramento: Kleinfelder, 2008-2012.
- History of Water Development on the Merced River for Irrigation, Mining, and Power Purposes Prior to the Organization of the Merced Irrigation District, 1860-1926. Merced: Merced Irrigation District, 2008-2012.
- San Nicolas Island Shipwrecks: Report related to all ships sunk within two miles along island, Ventura County, California. San Diego: Naval Facilities Engineering Command Southwest, 2008-2010.
- Oakdale Irrigation District Water Rights Investigation. Chico: O'Laughlin & Paris, 2008-2009.
- Historic Meandering of the River Bend Section of the Russian River, Sonoma County, CA. Sacramento: Lennihan Law, APC, 2008.
- Riparian Lands and Agricultural Land Uses Investigation for Major Reclaimed Islands in the southern San Joaquin Delta, San Joaquin County, CA. Chico: O'Laughlin & Paris LLP, 2007-2009.
- Delta Risk Management Strategy, Franks Tract Levee Research: Historical research into the original condition of levees around Franks Tract, and collection of aerial photographs showing how the levees deteriorated over time after the island flooded, Contra Costa County, California. Benjamin & Associates, 2007-2008.
- Pre-1914 Water Rights Investigation for Idyllwild Water District regarding Strawberry Creek, a tributary to the San Jacinto River. California State Water Resources Control Board, Complaint No. 33-05-01 In Re Strawberry Creek, Riverside County, CA. Sacramento: Ellison, Schneider & Harris, Attorneys at Law, LLP, 2007 - 2008.
- Work Camps, Mining Camps, and Towns in California, Historic Archaeological Research Design, prepared with Sonoma State Anthropological Studies Center. Sacramento: California Department of Transportation, 2006-2007.
- Historical Property Ownership Research for a Mine in Lake County, CA. El Paso Corporation, 2006.

REBECCA META BUNSE, M.A.

PRINCIPAL / CONSULTING HISTORIAN, VICE PRESIDENT, JRP HISTORICAL CONSULTING, LLC

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EDUCATION

M.A., History (Public History), California State University, Sacramento, 1996
Capital Campus Public History Program, with emphasis on Cultural Resources Management and Environmental History

B.A., Women's Studies / Italian, University of California, Davis, 1990
Emphasis on Women's History, Italian History, and Art History

BUSINESS AND PROFESSIONAL CREDENTIALS

JRP Historical Consulting, LLC:

- Vice President, 2017-Present
- Principal / Consulting Historian, 2016-Present
- Partner / Consulting Historian, 2012-2015
- Senior Historian I, January 2001-December 2001
- Staff Historian, 1997 to 2000
- Research Assistant, 1990-1996

Instructor, graduate seminar in Cultural Resources Management, CSU Sacramento

Past Board Member, Historical Preservation Commission, City of Woodland

Past President, California Council for the Promotion of History

Phi Alpha Theta, History Honor Society

Member, National Council for Public History

Meets and exceeds United States Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61) under History and Architectural History

EXPERT WITNESS TESTIMONY & PUBLIC MEETING / BOARD TESTIMONY

Klamath River Adjudication. Research services for the water rights adjudication on the Klamath River in Oregon. Historical research, collection of data and references, written direct testimony, and oral cross-examination before State of Oregon administrative law judge, Department of Water Resources. Somach, Simmons & Dunn, Sacramento. 1996–2004.

Appeals to City of Carmel Historic Resources Board / City Council. Appeals, testimony and appearances before Carmel HRB and City Council to listing of buildings as historic resources by the City of Carmel on behalf of 22 private property owners. 2006-2007.

Presentation to City Council, Pacific Grove. Peer review of historic resources evaluation of a residential building in Pacific Grove. Prepared for individual property owner and Horan Lloyd Law Offices (Monterey). 2006.

Presentation to Petaluma Planning Commission and City Council re Technical Report of Development EIR, regarding historic significance of buildings in development area, 2002-2003.

HISTORICAL CONSULTING SERVICES RELATED TO WATER CONVEYANCE

Pre-1914 and Riparian Water Rights and land use history investigation for acreage in Shasta County. Principal author and researcher. Sacramento: Lennihan Law, 2007.

Pre-1914 and Riparian Water Rights and land use history investigation for farm acreage in Yolo County. Principal author and researcher. Sacramento: Downey Brand Attorneys, 2004-2005.

Pre-1914 and Riparian Water Rights Investigation on 1,000 acres near Tracy, San Joaquin County. Principal author and researcher. Sacramento: Lennihan Law, APC, and the City of Tracy, Public Works Department, 2003.

Legislative history of certain provisions of the Boulder Canyon Act for Metropolitan Water District of Southern California, historical research. Sacramento: Ellison & Schneider, Attorneys at Law, 1999.

North Kern Water Storage District v. Kern Delta Water District. History of irrigation development and water rights claims on the Kern River in Kern County, California, including historical research and preparation of exhibits. Young Wooldridge, Bakersfield, 1997-1998.

Snake River Adjudication. Research regarding claim for federal reserve water rights under the Organic Act of 1897 for National Forests within the Snake River Basin. State Of Idaho, Office of the Attorney General, 1997-1998.

Research services for a water rights adjudication on the Klamath River in Oregon. Historical research and expert witness services regarding land and water use, hydroelectric power development, and client's pre-1909 water rights. Simmons, Somach & Dunn, Sacramento, 1996-2002.

Salinas River Research Project. Historical research and report regarding specified land and client's pre-1914 water rights and land use, to be submitted to the California State Water Resources Control Board. Ellison & Schneider, Sacramento. 1996-2000.

Solano Irrigation District v. The Names of All Appropriative Water Rights Holders in Upper Basin, et al., and Putah Creek Council v. Solano Irrigation District and Solano County Water Agency Putah Creek Water Adjudication: Historical research regarding Mexican Land Titles, Land Ownership and Agricultural Uses in the Putah Creek Riparian Corridor, and Historic Navigation on Putah Creek. Oroville: Minasian, Minasian, Minasian, Spruance, Baber, Meith & Soares, Attorneys at Law and Solano Irrigation District and Solano County Water Agency, 1994-1996.

Nickel Enterprises v. California. History of navigation and commercial use of California rivers and lakes. Included historical research and preparation of exhibits. California State Department of Justice, Office of the Attorney General, 1994.

Lytle Creek: pre-1914 appropriative water rights investigation for Fontana Union Water Company, Fontana, California. Investigation included analysis of appropriative and riparian claims, mutual water company rights and transfers of water stock, underground flows in defined channels, and Mexican water rights. Lagerlof, Senecal, Drescher & Swift, Pasadena, CA, 1991.

Historical research projects for the City and County of San Francisco Public Utilities Commission and Water Department, City and County of San Francisco, 1990-present.

Historical research into the passage of the Federal Power Act for City and County of San Francisco Public Utilities Commission and Water Department, City and County of San Francisco, 1990-present.

Complex Historic Properties and Historic District Studies:

San Jose to Merced Section, California High-Speed Rail Program: Inventory and Evaluation and Preparation of DPR 523 Forms, San Benito, Santa Clara, and Merced Counties, California, 2017–In Progress. Including historic irrigation canals and flood control infrastructure. Prepared for HNTB and California High-Speed Rail Authority.

San Francisco to San Jose Section, California High Speed Rail Program: CEQA and Section 106 technical reports, San Francisco, San Mateo, and Santa Clara counties, California, 2016–In Progress. Including historic irrigation canal systems. Prepared for HNTB and California High-Speed Rail Authority.

BART Silicon Valley Phase II Santa Clara Extension Project: Supplemental Built Environment Survey Report. Prepared with ICF for Santa Clara Valley Transportation Authority, and the Federal Transit Administration. 2013–In Progress.

Cultural Resources Compliance Manager, Presidio Parkway Project. As CRC Manager: prepare, direct, review, and monitor cultural resources compliance for parkway construction project activities within the Presidio of San Francisco National Historic Landmark / National Park. 2011–In Progress.

Bakersfield to Palmdale section, California High Speed Train, Historic Architectural technical reports, Kern and Los Angeles counties. Inventory and Evaluation of about 175 properties, photo-survey of more than 500 properties, APE development, database management, Section 106 effects analysis, CEQA impacts reports, San Joaquin Valley, Tehachapi Mountains, Antelope Valley, California. Prepared with URS (2011-2013) and TyLin (2014-present) for California High Speed Rail Authority.

Inventory and evaluation of several buildings on the UC Davis main campus, including the Briggs Reservoir remains, Hog Barn, Veterinary Medicine Buildings, Walker Hall, Campus Dairy, Chemistry building, Russell Ranch complex and many others. Evaluations beginning in 1998 and continuing, as assigned, through the present.

San Francisco Central Corridor: Historic Archival Research for support of historic archaeological research design and treatment report. Prepared with Far Western Anthropological Research Group for San Francisco Planning Department. 2013. Fresno to Bakersfield section, California High Speed Train: Historic Architectural technical reports, Fresno, Kings, Tulare, and Kern counties. Inventory and Evaluation of more than 300 properties, photo-survey of more than 1,100 properties, APE development, database management, Section 106 effects analysis, CEQA impacts reports, San Joaquin Valley, California. Prepared with URS for California High Speed Rail Authority. 2009-2013.

Golden Gate Bridge Mitigation: Update Historic American Engineering Record (HAER) documentation, prepare National Register Nomination for Golden Gate Bridge, City and County of San Francisco, California. Prepared for HNTB Corporation. 2012–In Progress.

Pacific Gas & Electric Salt Springs to Tiger Creek Transmission Line: Historical Resources Inventory and Evaluation Report, Amador and Calaveras Counties. Prepared for Far Western Anthropological Research Group. 2011–2012.

Van Ness Trolley Poles, Inventory and Evaluation of municipal trolley poles as part of Van Ness Bus Rapid Transit Project. Prepared for Parsons. 2009–2011. Authority, under contract to DMJM-Harris / AECOM. 2008–2010.

Other Water Resources / Land Use Related Studies:

Mokelumne Aqueduct, inventory and evaluation of a portion of the historic East Bay Municipal Utility District main supply system in support of cultural resources technical report. Prepared with Circlepoint, for Caltrans, District 4. 2014-present.

South Bay Aqueduct, a component of the Central Valley Project. Preparation of a finding of effect for this historic water conveyance feature. Prepared for Pacific Gas & Electric Company. 2014.

Water conveyance infrastructure inventory and evaluation in support of cultural resources technical reporting for the Fresno to Bakersfield section, California High Speed Train. Canals and canal systems dating from the 1870s through the 1950s, located in Fresno, Kings, Tulare, and Kern counties. Evaluations based on archival research and documentation; project included development of detailed database. Prepared with URS for California High Speed Rail Authority. 2009-2013.

Arroyo Grande Waterway: Inventory and evaluation of historic resources for waterway improvement project, San Luis Obispo County, California. Prepared for Morro Group, Inc. (SWCA). 2008-2009.

Land Use History, Van Ness Avenue, San Francisco. Land use history and archival documentation of the development of Van Ness Avenue, including its official survey, boundaries, and improvements from the 1840s through the present. Sources included historic survey maps, court records, and property ownership records. Coordinated findings with historic archeologist. Prepared with Parsons, for the City of San Francisco. 2008-2009.

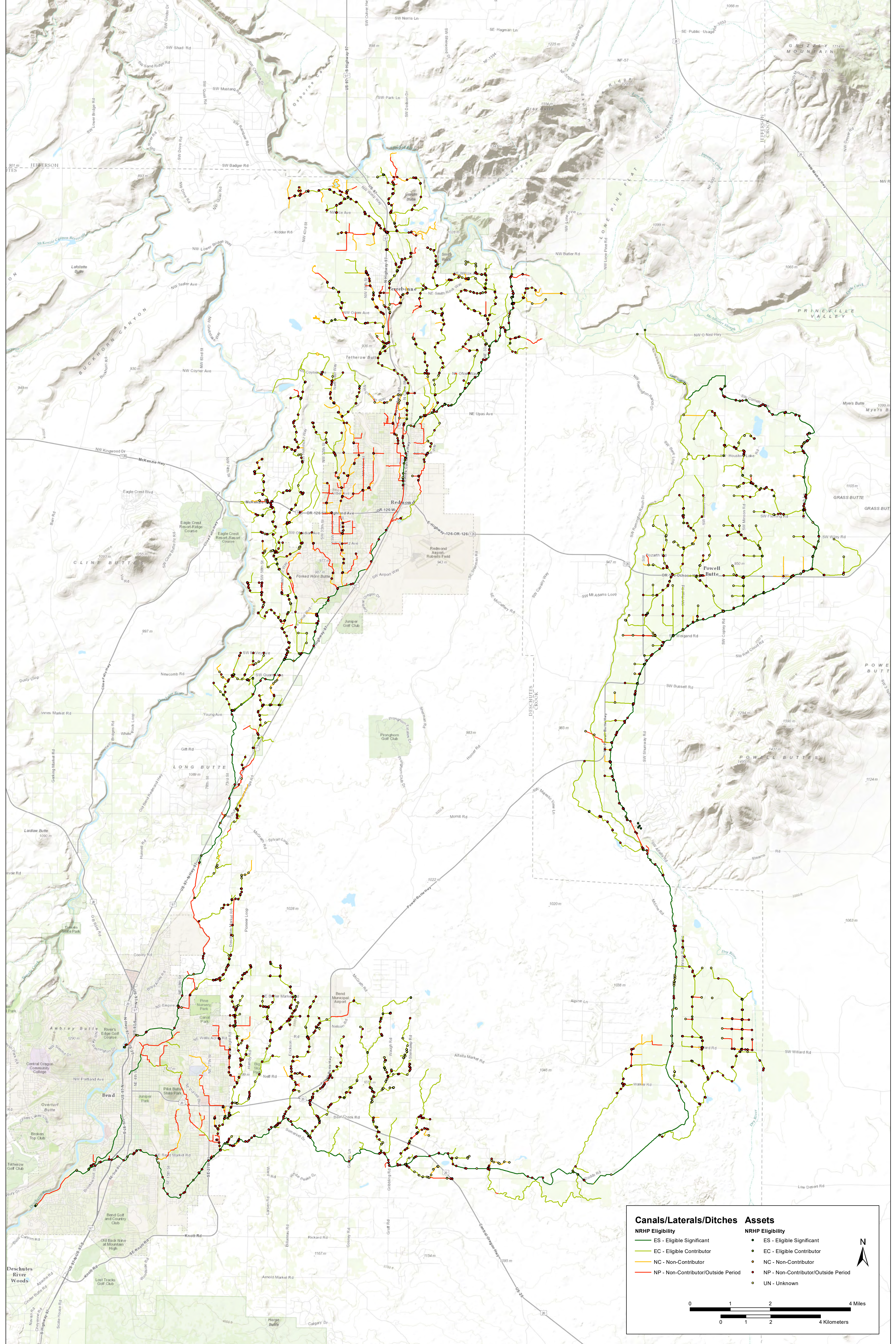
Land Use History, San Francisco General Hospital site. Land use history and archival documentation of the development of the hospital site from the 1870s through 1980 in support of an archeological research design and treatment plan, coordinating findings with historic archeologist, and geoarcheologist. Prepared with URS, for the City of San Francisco. 2008-2009.

Marsh Creek Dam: Historic Resources Inventory and Evaluation, Contra Costa County, California. Prepared for Far Western Anthropological Research Group. 2007.

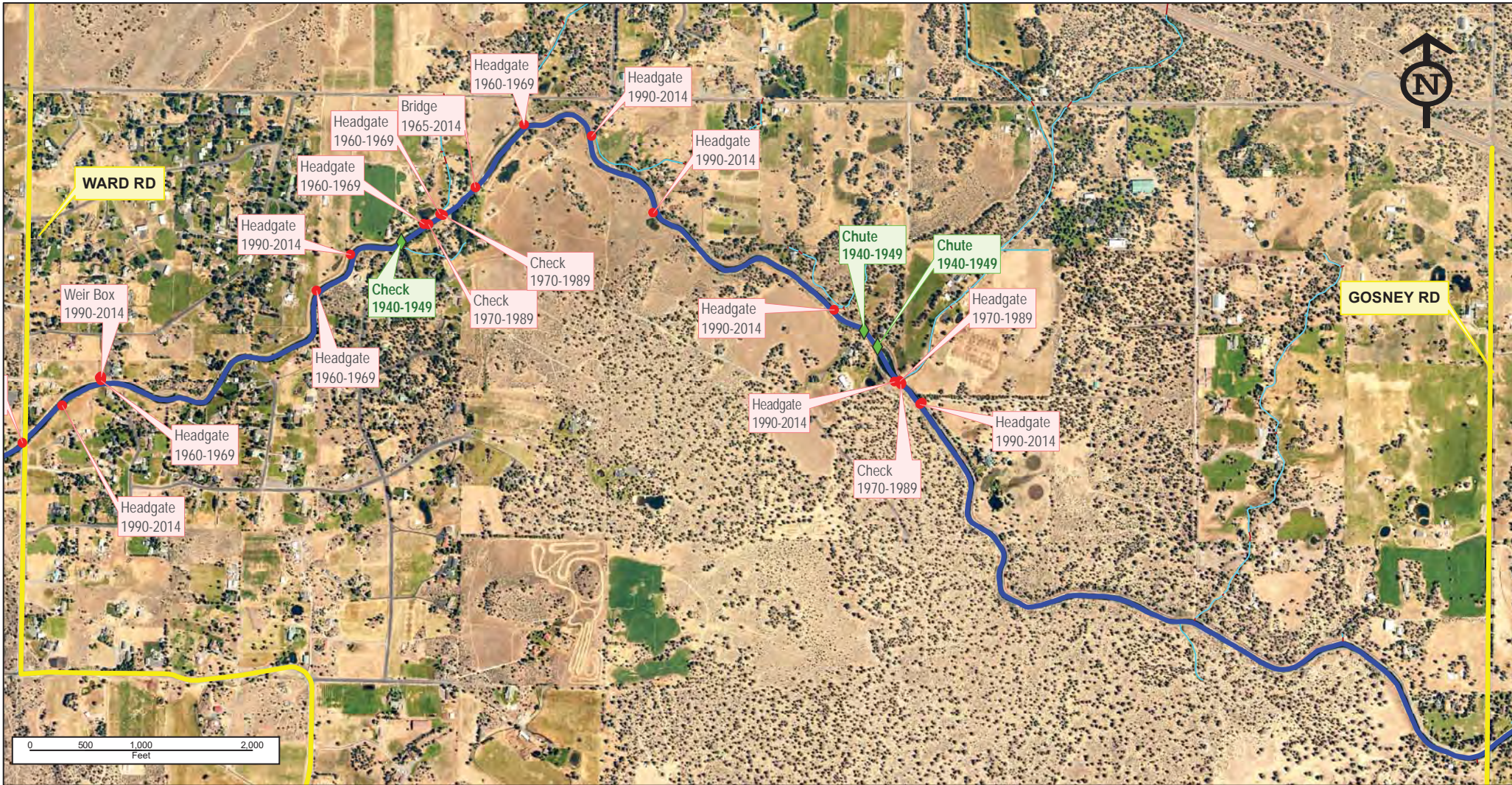
Historic Evaluation of the Oakdale Road Bridge (38C0121) over Modesto Irrigation District (MID) Main Canal, Riverbank, California. Prepared for City of Riverbank. 2004–2005.

Historic American Engineering Record/Historic American Buildings Survey, Sacramento River WTP Intake Pier (Project), Sacramento, California. Prepared for the City of Sacramento, Utilities Department, 2003-2004.

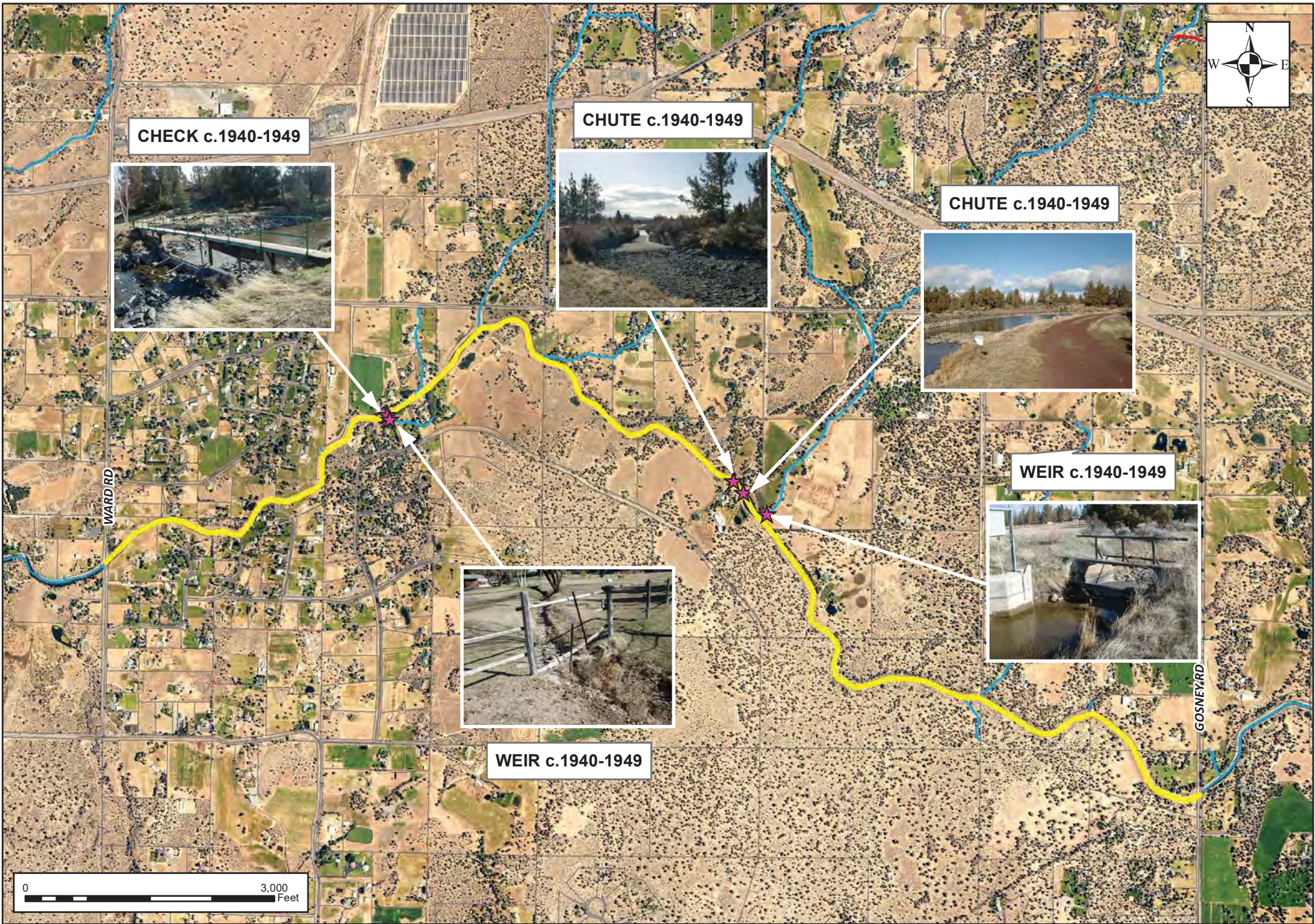
- Historic Resources Evaluation Report for Potter Valley Canals: Reconstruction and Widening of Eastside Potter Valley Road, Mendocino County. Prepared for Archeological Services, Inc. 2002.
- Historic Properties Mitigation Program for the Delta Wetlands Project, San Joaquin Delta Islands. Sacramento: Ellison, Schneider & Harris, 2002-Present.
- Inventory and Evaluation of Historic Resources near Peyton Slough, Contra Costa County. Prepared for URS Corporation, 2002.
- Inventory and Evaluation of Historic Resources, Point Edith. Prepared for the Contra Costa County Mosquito and Vector Control District, 2002.
- "Inventory and Evaluation of Saeltzer Dam, Clear Creek, Shasta County, California." For Pacific Legacy, Inc. February 1999.
- "Inventory and Evaluation, Peyton Marsh Drainage System, Contra Costa County, California." For Contra Costa Mosquito and Vector Control District. 1997.
- Researcher and database manager for a historical study of land and water use on Putah Creek, Yolo County. 1996.
- Co-author and principal researcher, state-wide thematic study of historic canal resources. Project included an historic overview of canal technology, and an analysis of current evaluation methodologies, as well as proposing a standardized canal recordation format. For the California Department of Transportation. 1995.
- Principal researcher in project to document early fish populations in San Francisco Bay Area. 1995.
- Co-author and principal researcher, Historic Resource Evaluation Report on Oakdale Irrigation District canals, Stanislaus County, CA. 1993.
- Identification and evaluation of the historic significance of 89 historic water conveyance systems crossed by the proposed Mojave Gas Pipeline in Kern, Tulare, Kings, Fresno, Madera, Merced, Stanislaus, San Joaquin, Sacramento, Alameda, and Contra Costa counties, California. San Francisco: Woodward-Clyde Consultants for the Federal Energy Regulatory Commission, 1993.
- Identification and evaluation of the historic significance of six irrigation canals in Fresno County, CA. Fresno: California Department of Transportation, Fresno District Office, for the Federal Highway Administration, 1992.
- Project to document the significance of historic engineering features on the El Dorado Canal, El Dorado County, California. With BioSystems Analysis, for Pacific Gas & Electric Company, for the El Dorado National Forest. 1991.
- Project documenting the establishment of Fort Huachuca, and its historic water use, from 1870s through the Vietnam era. U.S. Army Corps of Engineers, Los Angeles District. 1990.



| Canals/Laterals/Ditches Assets | |
|---------------------------------------|---------------------------------------|
| NRHP Eligibility | NRHP Eligibility |
| — ES - Eligible Significant | • ES - Eligible Significant |
| — EC - Eligible Contributor | • EC - Eligible Contributor |
| — NC - Non-Contributor | • NC - Non-Contributor |
| — NP - Non-Contributor/Outside Period | • NP - Non-Contributor/Outside Period |
| | • UN - Unknown |



**WARD RD TO GOSNEY RD
ICF Inventory Assets**



Ward Rd to Gosney Rd



- ★ ICF EC Feature
- COC Ward Rd to Gosney Rd

COC SIGNIFICANT MAINTENANCE/EVENTS, WARD RD. to GOSNEY RD.

The 3.4 mile stretch of the Central Oregon Canal (COC) between Ward and Gosney Roads is a high fill section of open canal that was constructed some 115 years ago. This section has generally required more maintenance and reconstruction activities than any other section of the COC, due to the geography and topography. This report catalogues recent major reconstruction and emergency maintenance activities in the past 25 years. While COID does not have institutional recollection or records for maintenance and reconstruction activities between the original construction and the 1990s, we believe that the below report is representative of efforts that would have been necessary throughout the history of this canal due to the difficulty posed by the lava rock in this area.

The native silt type soil available on site was used to construct the canal along a sloped hill side along most of this stretch. The canal sits at an average of 20 feet above the adjacent lands on the low side of the system. At Ward Road the canal water flow is approximately 400 cubic feet per second (cfs). At Gosney Road the canal flow is reduced to approximately 335 cfs due to diversions feeding into other laterals and deliveries within that 3.4 mile stretch. This segment of canal is monitored daily by the ditch rider during Irrigation Season (April through October), and during COID's off season one-week long livestock water runs (normally scheduled for November, January, February, March, weather and other factors permitting).

Included for use with the bullet point notes below is an aerial map pinpointing numbered locations (1 through 9) along this stretch of canal where significant reconstruction, maintenance work, events, and/or additional routine maintenance work has occurred. Photographs of locations 1; 2; 3; 4 (included in Siemens geologist report); 5; 7; 8; and 9 are also included.

- **Location 1:** Burrowing animal (marmot) damage resulted in a minor breach several years ago in the high fill embankment on the canal road side. Per the ditch rider, an area of land approximately 150 feet by 150 feet was submerged under about 1 foot of water until the repair could be made. If not attended to immediately, a major breach of the canal could have potentially occurred, and potentially spilling approximately 200 cubic feet per second (90,000 gallons per minute) of water onto the adjacent land on the lower side of the high fill embankment. The repair consisted of using a track excavator to excavate down approximately 4 feet in the center of the embankment canal road for a length of about 20 feet to find the burrow hole. Approximately 10 cubic yards of clay was mixed with the existing excavated soil to produce a suitable backfill material. This material was compacted into the hole to seal off the burrow hole water flow. (Note: see location 1 site photograph)¹
- **Location 2:** Embankment erosion had gradually occurred overtime in a bend in the canal on the south (off-road) side of the channel causing adjacent landowners on the south side some concern in 2007/2008. COID contracted with Geologist Andy Siemens (Siemens & Associates) to evaluate the land owner concerns. Per his recommendation, rip-rap (rock armoring) was placed along the south side embankment to help prevent further erosion. Approximately 200 lineal

¹ This emergency repair required alteration to the exterior of the structure, and so would have posed a significant challenge to COID and safety risk to adjacent properties if listed as a Goal 5 historic resource such that reconstruction had first required obtaining a permit from the Deschutes Historic Landmark Commission that meets only quarterly.

feet of the embankment was armored. Note: see enclosed location 2 Siemens & Associates report dated April 11, 2008, and location 2 site photograph) The addition of rip-rap in this section substantially altered the appearance of the canal.

- **Location 3:** During the 2007 off season COID performed some rock breaking work at this location to reduce the height of a basalt rock outcropping in the canal channel. This allowed for more free flow of the water in the channel, and reduced the risk of ice damming on the rock outcropping and the ditch rider walk bridge crossing the canal during the off season livestock water runs occurring during frigid conditions. The size of the rock outcropping removed was approximately 15 feet long, by 20 feet wide, by 2 feet high. Some minimal rock breaking occurred immediately downstream of the walk bridge as well removing some rock points allowing for less obstruction and improved flow. The busted rock was used to add more armoring to the canal embankment adjacent to the rock outcropping removal work. (Note: see location 3 site photograph). Again, this effort required substantial modification to the exterior of the canal structure.
- **Location 4:** During the January 2010 off season livestock water run (approximately 200 cubic feet per second), the canal floor and a portion of the canal embankment on both sides of the channel collapsed and exposed large underground fissures and cavern type geology extending well into the embankments. A segment of the canal road was also swallowed by the collapse. Geologist Andy Siemens (Siemens & Associates) was contracted to evaluate the collapse and to design an appropriate repair. JAL Construction was contracted to perform the repair. See enclosed Siemens & Associates Reports with photographs dated January 29, January 21, and April 5, 2010, and related invoices. (Additional note: Interestingly, a landowner's pond located approximately one-half mile due north of the COC collapse had twice collapsed and been repaired during the 2009 irrigation season. That collapse revealed similar underground characteristics as the canal collapse event).
- **Location 5:** "Burt's Chute" is a 100 foot long narrow concrete channel constructed within the canal channel some decades ago, likely built to span the canal over a high loss area, or sink hole, due to fissures in the basalt. The long wide ponding/stilling pool below Burt's Chute required embankment rip-rapping (armoring) previously to lessen embankment erosion caused by the force of the swirling water after it exits the chute. Both sides of the channel were rock armored for approximately 200 feet in length. This location will require additional armoring reinforcement repairs in the near future. Some rock armoring has fallen away from the embankment and will need to be reset. Additional rock may need to be imported to improve the existing armoring. (Note: see photographs of site)
- **Location 6:** According to the ditch rider, a serious breach had occurred at this location during the 1993 irrigation season as a result of burrowing animal damage. He recalls being told that the breach was approximately 15 feet wide by 3 feet deep, by 30 feet in length, spilling approximately 50 cubic feet per second of water (about 22,500 gallons per minute). Water was flowing across the bare property below the high fill embankment between the canal and Bear Creek Road and the county road bar ditch was filled with water for several hundred feet in each direction with some water reaching the height of the asphalt road surface and crossing over the road. Per the dimensions provided by the ditch rider, it would have taken a minimum of 70 cubic yards of clay-soil mix to backfill the breach and make the repair. (Note: No photograph)
- **Location 7:** On July 8, 2017, a burrowing animal (gopher) caused a leak at the base of the high fill slope into a resident's back yard. This was reported by the landowner to COID's after-hours/weekend call service. Due to its hidden location (back yard, behind a fence and at the base of a tree), COID's daily monitoring would not have observed the leak. COID responded promptly and performed the repair. The repair was made by excavating down 3 feet deep for 20 feet in length in the center of the embankment canal road until encountering the burrow hole water

flow. 5 cubic yards of clay was mixed with the excavated soil to make the repair. (Note: See photograph Location 7)..

- **Location 8:** “Sterns Waste” was constructed several decades ago as an emergency canal spill should a catastrophic event occur downstream of location 8 that required the canal flow be rapidly reduced and/or eliminated. At this location, there are three 4 foot diameter “Waterman” wheel type headgates for managing an emergency canal spill. The last time the gates were used was in January of 2013 during an off season livestock water run. The temperatures dropped dramatically during the night within a few hours resulting in ice dams forming in the main canal and laterals in the Powell Butte area. The COC head works gates in Bend were closed immediately and both the Sterns Waste gates, and the Dry Canyon spill gates (located downstream adjacent to Brasada Ranch), were opened to rapidly reduce the water flow, helping to prevent further overtopping of the COC embankment and flooding of the Powell Butte Highway. Simultaneously, the COID crew worked through the night with heavy equipment breaking ice dams in an attempt to keep water flowing and in the canal. The Crook County Road Department assisted with traffic control and sanding during the hours that freezing water was on present on the Powell Butte Highway. Sterns Waste is essential to COID’s emergency response needs. (Note: see location 8 photographs)
- **Location 9:** Historically this location, about 500 feet upstream of Gosney Road, is well known for canal embankment seepage. In July 2015, the land owner owning property under the high fill embankment reported to COID that they perceived the amount of seepage had increased compared to previous years. COID promptly responded and found no signs of burrowing animal activity. COID more closely monitored this location and contracted with the Wallace Group to perform a geotechnical evaluation. See the enclosed Wallace Group report dated July 21, 2015. COID’s further monitoring observed that the seepage lessened throughout the remainder of the 2015 irrigation season and the standing water dried up significantly. COID monitoring this 2017 irrigation season observed some increased seepage but not to the degree first observed in 2015. Note: see location 9 site photograph)
- **Other:** Throughout this entire 3.4 mile stretch of main canal (Ward Road to Gosney Road) silt bar accumulations must be routinely removed every 3 – 5 years using heavy equipment (dozers, track excavators, dump trucks). As the work occurs, several hundreds of cubic yards of silt spoils are placed along segments of the embankment where extra widening is a benefit to further reinforce the high fills, or stock piled to be exported and used as bedding/backfill material on COID construction/improvement projects at other locations.

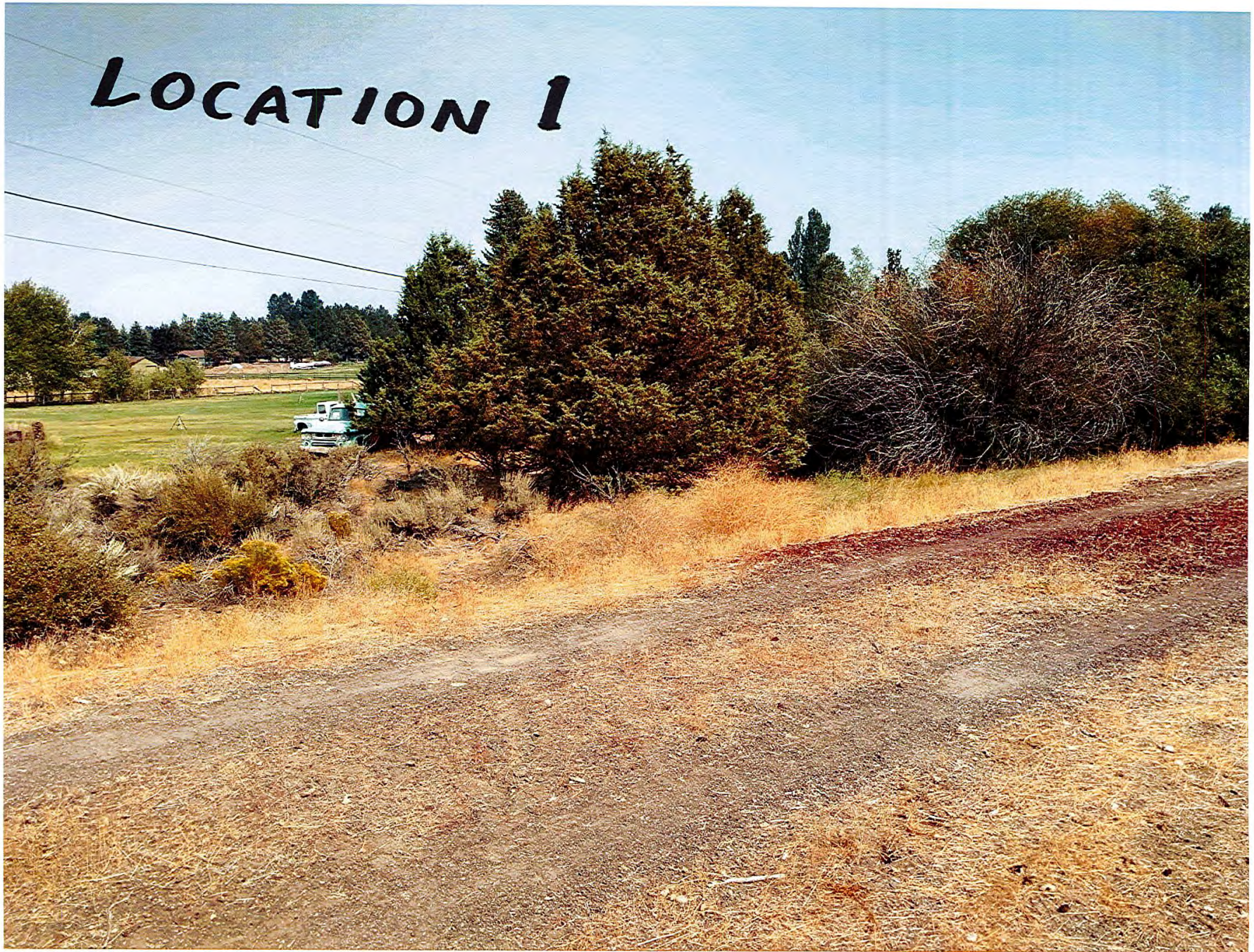


COG SIGNIFICANT MAINTENANCE/EVENTS, WARD ROAD TO GOSNEY ROAD



NOTE: MAINTENANCE AREAS ARE NOT TO SCALE

LOCATION 1



LOCATION 2

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW lake Court
Redmond, Oregon 97756
Attention: Larry Roofener

April 11, 2008
Project No. 1081018

Project: Central Oregon Canal
Bend, Oregon

Subject: Geotechnical Observations

Dear Larry,

We met you the afternoon of April 3, 2008 to review a select portion of the canal for the purpose of offering our opinion concerning bank stability. The area that we reviewed is along the right bank a short distance downstream from Ward Road adjacent the property owned by Rudy & Margaret Molzan and James Ristoff (tax lots TRS 18-12-01, TL 2300 and TRS 18-12-01 TL 2400, respectively).

At the time of our visit the canal was essentially dry and the areas of interest were readily available for review. The normal high-water mark was easily discerned from mineral precipitate on both large and small rock embedded within the canal bank. In this area the canal appears to offer a moderate gradient such that flow velocity is likely above average. The canal flows east through most of the Molzan property and then bends to the northeast. Canal depth appears to be on the order of 6 to 8 feet. The area hosts thin soils underlain by basalt – basalt is exposed throughout the canal bottom and appears fresh and clean with very little sand or silt deposition supporting our conclusion of moderate velocity flow. The canal is mostly in cut although low soil berms are built up on both sides.

We observed several areas along the Molzan property where it is our opinion that light erosion has promoted the upper foot or so of the canal bank to slump down about that same distance. These are fairly minor disturbances likely promoted by the undermining of soils near the high-water line held together by vegetation that slowly degraded and finally became too weak to support the weight in a saturated condition. These types of slumps often occur shortly following a rapid drawdown of the canal as the seepage forces toward the canal promote movement of weakened embankment. We did not observe indication of a larger instability such as a deep seated bank failure or reason to suspect that such a situation is imminent. Further, it is our view that the condition is one that has been developing for a long time and we do not assign a great urgency to the repair as it is our view that

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19134 River Woods Drive, 97702

Bend, Oregon
fax: 503-296-2271

even if uncorrected future years are likely to see a similar slow degradation of the bank rather than a rapid or catastrophic failure. However, it is also our opinion that stabilization efforts should be performed and the sooner, the better.

During our visit, we pointed out the areas where we think stabilization would be beneficial in the form of a simple armoring from just below the high-water up to the top of the embankment. Such protection can easily be established by excavating a solid bench into the existing riprap to form the foundation for additional riprap placement. Care should be observed when placing the new riprap to assure that it is firmly seated on the slope and well supported at its base. The riprap sizes can range from the largest rocks available to cobble sized rock with the smaller constituents best used to chink the void space between the larger rocks. Suitable riprap materials were stockpiled on site and can be gathered from the canal bottom and other areas where loose rock occurs.

At some time we suggest improving the bank armor at the northeast bend. While currently offering reasonably stable banks the soils along the bend can be expected to slowly degrade if not maintained by suitable riprap or other means of slowing erosion.

In areas such as these, it is our opinion that COID would benefit from establishing control points on each canal side that can be used to monitor the canal cross-section with time. This will help determine the effectiveness your stabilization efforts and serve as a record of success or a basis to justify additional effort. Methodology of such monitoring was discussed in the field.

This report presents our professional opinion based upon a quick site visit, discussion and visual observation of surface conditions. The conclusions generated are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar work – we make no other warranty express or implied.

We appreciate the opportunity to provide this review and would be delighted to expand any of the topics as necessary. If you have any questions, just ask.

Respectfully submitted,
Siemens & Associates

J. Andrew Siemens, P.E., G.E.
Renews 6/30/2008
Addressee: 3 hard copy

LOCATION 2



LOCATION 3



LOCATION 4

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

January 21, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance

Gentlemen,

This letter presents our findings, conclusions and discussion of repair options to return service through a short section of canal that recently collapsed during a winter stock run. The affected area is located about $\frac{3}{4}$ miles east of Ward Road and $\frac{1}{4}$ mile south of Bear Creek Road.

We have explored the canal collapse through non-destructive means including basic field observation, geophysical methods using DC electrical imaging combined with limited research into readily available geologic information bearing on the area. The geology of the zone is dominated by a thin layer of silty sand soil placed by wind and water that conceals layers of basalt related to the Newberry volcanic center to the distant south. The basalt offers highly variable characteristics in terms of degree of fracturing, jointing and inflation and is disrupted by numerous faults that typically follow a northwest-southeast alignment. In addition, the area is known to host many air-filled lava tube caves some identified where the roof structure has collapsed due to natural causes, others remain concealed below thin layers of basalt.



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Bend, Oregon
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The canal likely crosses numerous lava tube caves and faults as well as other anomalous zones such as boundaries between flow lobes and inflation features – most being harmless. Although we are not 100 % certain for reasons discussed later, we have not discovered any compelling reason to think that an air-filled lava tube collapsed. Rather, our findings suggest a less dramatic geologic anomaly probably associated with a heavily fractured, porous and inflated lava system that inflated differentially during its emplacement and the depressed surface sequentially filled with soil prior to the original canal construction. This depression includes an indurated (hardened) surface layer resembling volcanic tuff that provided reasonably good resistance to erosion over the years.

Cracks and other disconformities in this hardened surface layer along with clefts adjacent the more resistant basalt allowed seepage and subterranean erosion of the less competent underlying soil that was gradually flushed into large cracks and fissures of the supporting basalt below. The process has been ongoing for many years and although the collapse may have been precipitated by recent construction activity that included rock chipping in the area, the bridged erosion voids would have eventually failed anyway.

In our view, a variety of options are available to restore service with the primary objective being the sealing of subterranean voids such that future seepage energy is reduced to a degree that will not erode soil from either the canal bottom or embankments. This can be done effectively by building a graded filter from the bottom of the



cleaned out collapsed zone that is integrated with the intact margins of the existing canal. Physical exploration to determine the extents of the repair should be done as loose debris is removed. We anticipate that much of the spoil will be suitable for reuse in the reconstruction.



The completed surface through the collapsed zone could be finished with a lean concrete (the Cadillac repair) or we think that a less expensive soil floor and embankment armored with rip rap would also be acceptable providing that the flow is not so turbulent as to promote new erosion. Based on our findings, we estimate that a length of canal on the order of 100 feet will require reconstruction.

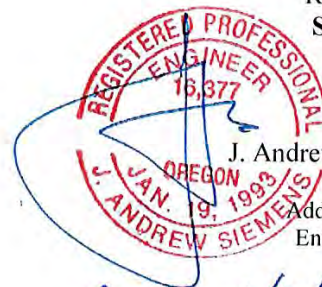
A rough Site Plan is attached to this letter along with the interpretations from two electrical imaging lines that extend along the top of each embankment. Although we ran a third electrical imaging line down the center of the canal, the effort was unsuccessful in developing a robust description due to poor electrical contact in the rock and failure to inject high current levels. Therefore, the results from that survey are not presented. We have conducted many similar surveys with electrodes set directly in rock and this is the first time that the method failed. This promotes our concern that some unusual (and undiscovered) geologic condition prevails to influence the effectiveness of the method through the bottom of the canal. As a result, we recommend conducting the clean out with caution to potential unidentified geologic hazard.



This report presents our professional opinion based upon geophysical measurement and interpretation presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar work in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct this exploration and look forward to assisting you work out an effective repair. If you have any questions, just ask.

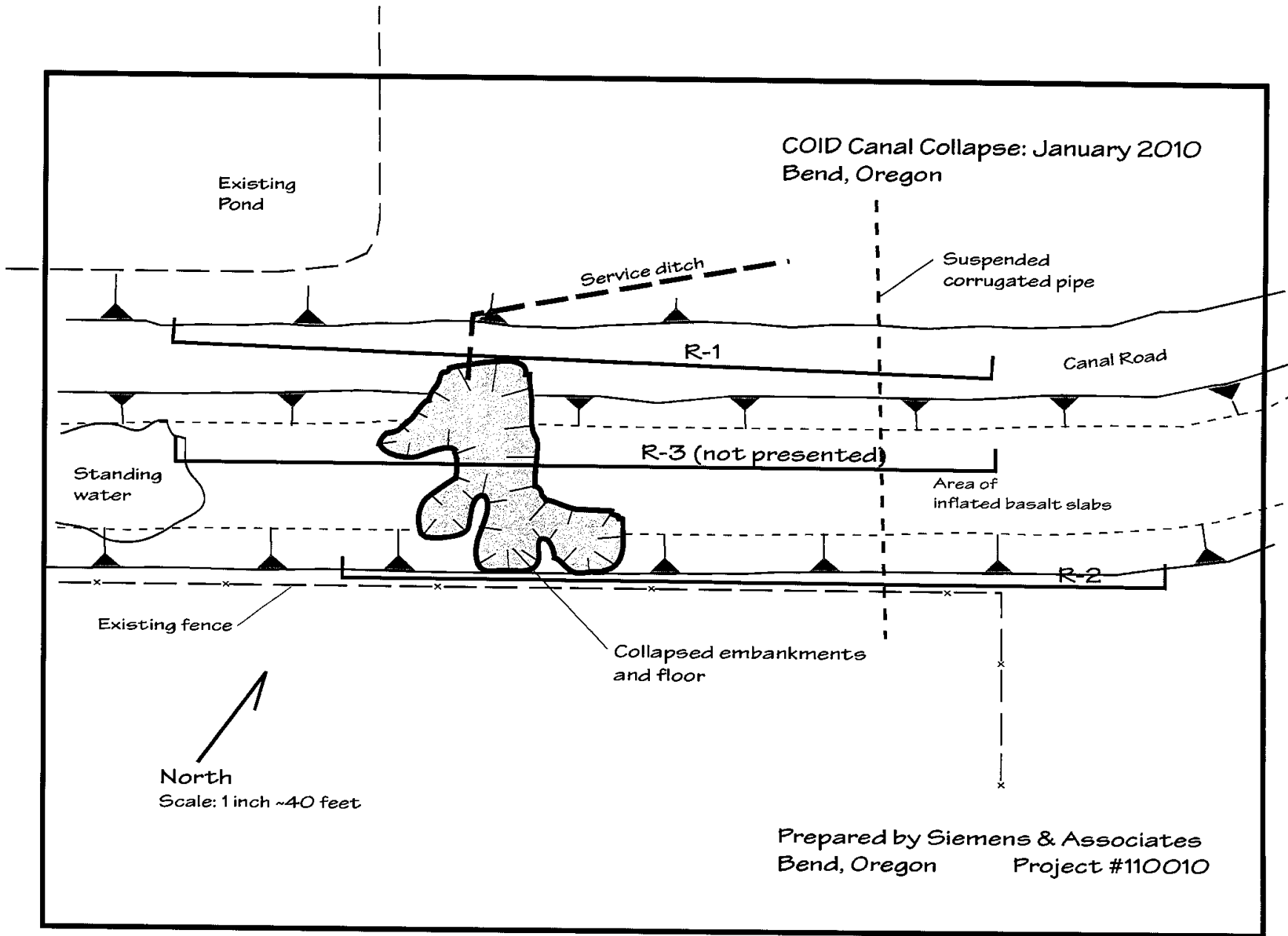
Respectfully submitted,
Siemens & Associates



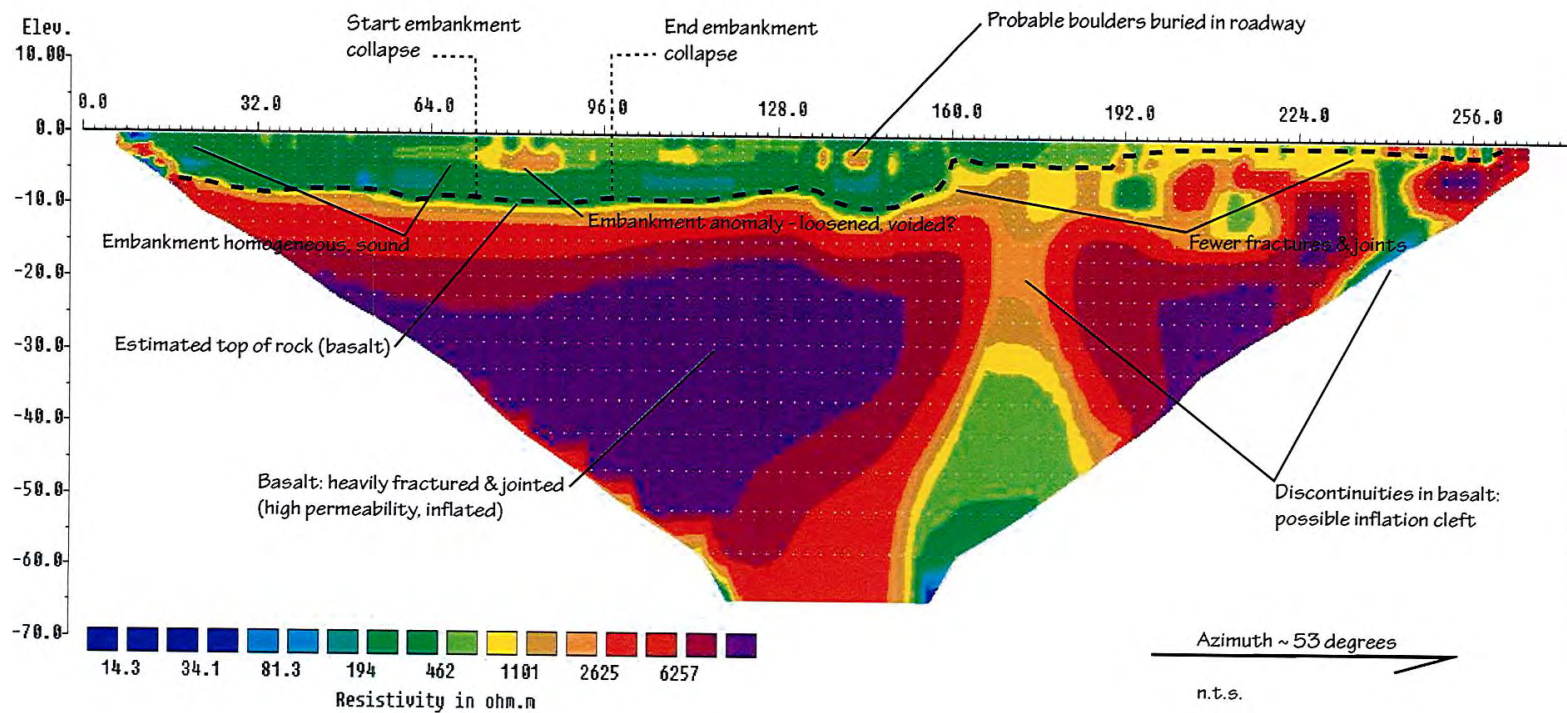
J. Andrew Siemens, P.E., G.E.

Addressee: 1 electronic
Enclosures: Site Plan,
R-1, R-2

Renews 4/30/2010

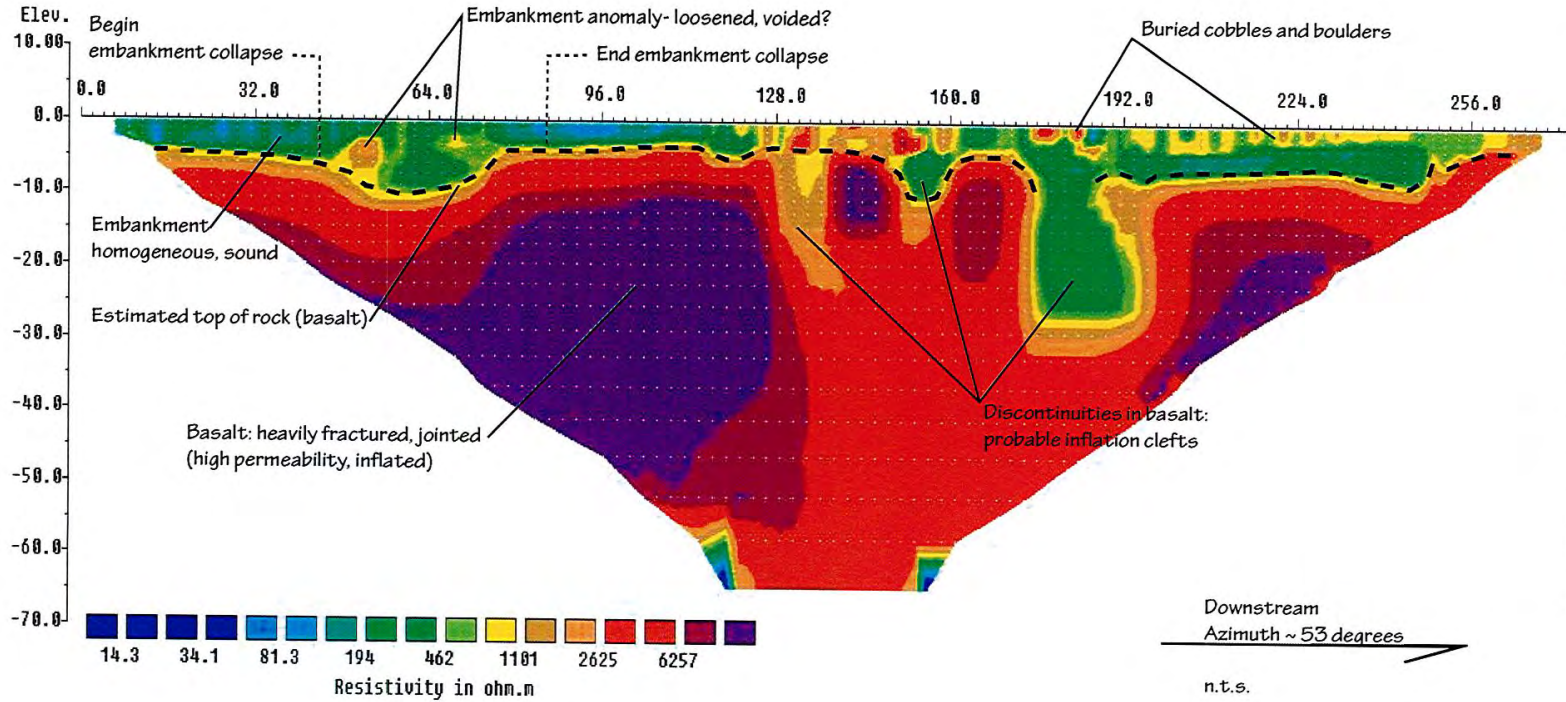


Electrical Resistivity Tomography: R-1
Left embankment: 56 electrodes on 5 foot spacing, Dipole-Dipole array



Prepared by: Siemens & Associates
Bend, Oregon

Electrical Resistivity Tomography: R-2
Right embankment: 56 electrodes on 5 foot spacing, Dipole-Dipole array



Prepared by: Siemens & Associates
Bend, Oregon

LOCATION 4

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

January 29, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance During Repair

Gentlemen,

Since our meeting at your office last Friday, January 22, 2010 we have been assisting with the repair effort that is currently underway. This letter is prepared as an update concerning findings and repair strategy.

The effort has progressed essentially as envisioned during our meeting beginning with an exploratory effort that included verification of collapse boundaries and probable cause. In our view, the conclusion that the collapse is a result of subterranean erosion of loose soils into underlying basalt cracks and fissures (clefs) remains to be the most likely cause of the collapse.

A recent snow fall promoted an approximate one day delay while the temperatures climbed and the snow was removed by spraying with water. The effort was very successful and as a result, the collapse soils that are removed will be free of snow and suitable for reuse.



A significant volume of very loose and erosion vulnerable soil is being removed from the collapse zone resulting in excavation depth through a small area on the left side that was about 13 feet deep as measured from the canal bottom. Although difficult to

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Bend, Oregon
fax: 503-296-2271

judge, we estimate that the average excavation depth was probably on the order of about 6 to 8 feet from canal bottom. Total volume to be restored is expected to be on the order of 1000 to 1200 cubic yards, a large portion of which will be made up from excavation spoils. The remainder will be import mostly from JAL's West Butte Pit near Millican, Oregon.



We have visited and sampled materials from West Butte Pit and based on our data, visual review, and with test results provided by JAL, we judge that suitable materials are available to complete the repair. An additional import source for clayey material has yet to be defined for the recommended low permeability zone.

Soils and collapse debris are being removed to expose either a rock subgrade as judged from bucket refusal or to an apparently firm combination of rock and soil in apparently undisturbed condition. From this point, we recommend proceeding with a sequence of repair tasks as follows:

1. Continue loose soil removal to expose firm subgrade composed of either rock or competent soil.
2. Moisture condition the thin layer of soil remaining at the subgrade level while washing soil into suspect areas likely to host large cracks and fissures.
3. Hoe-pack subgrade.
4. Place primary protective filter: Use 3 inch minus basalt from stockpile at JAL's West Butte Pit, Millican, Oregon. This layer should be distributed to achieve an approximate 2 foot thickness (or greater) over the entirety of the subgrade. The primary filter should be nestled into place with vibratory energy delivered by a hoe-pack.
5. Place secondary protective filter: use ODOT ¾ inch minus crushed aggregate – acceptable material includes JAL's stockpile at West Butte Pit. The thickness of the secondary filter should be at least 1 foot and the layer should be moisture conditioned and heavily compacted using a hoe-pack.
6. Restore left and right embankments – the left embankment (looking downstream) should be

rebuilt using the reject fines tested from West Butte Pit. Select spoils are acceptable for restoring the right embankment. Restoration soils should be moisture conditioned, placed in thin, horizontal lifts (about 1 foot) and heavily compacted while integrating the contact with the existing embankment. The embankment lines should consider the volume necessary for clay and rip rap finishes.

7. Place low permeability (clayey) layer over top of secondary filter layer and up the restored embankment slopes approximately 1 foot above high water line. Acceptable source to be researched by contractor (JAL) and approved by geotechnical engineer (Siemens). Low permeability layer should be 1 foot thick or greater and heavily compacted.
8. Refill remaining area using onsite spoils separating boulders as is reasonably practical for later use as onsite rip rap. Refilling should commence to within about 1 ½ foot of finished canal grade.
9. Restore rip rap protection throughout repaired zone and integrate with undisturbed areas.
10. Rebuild flow gate and check structure as directed by COID at left embankment

This report presents our professional opinion based upon visual review of the conditions encountered combined with previous geophysical measurement and interpretation. The conclusions and recommendations are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar repair in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct be of service and look forward to assisting you work out an effective repair. If you have any questions, just ask.

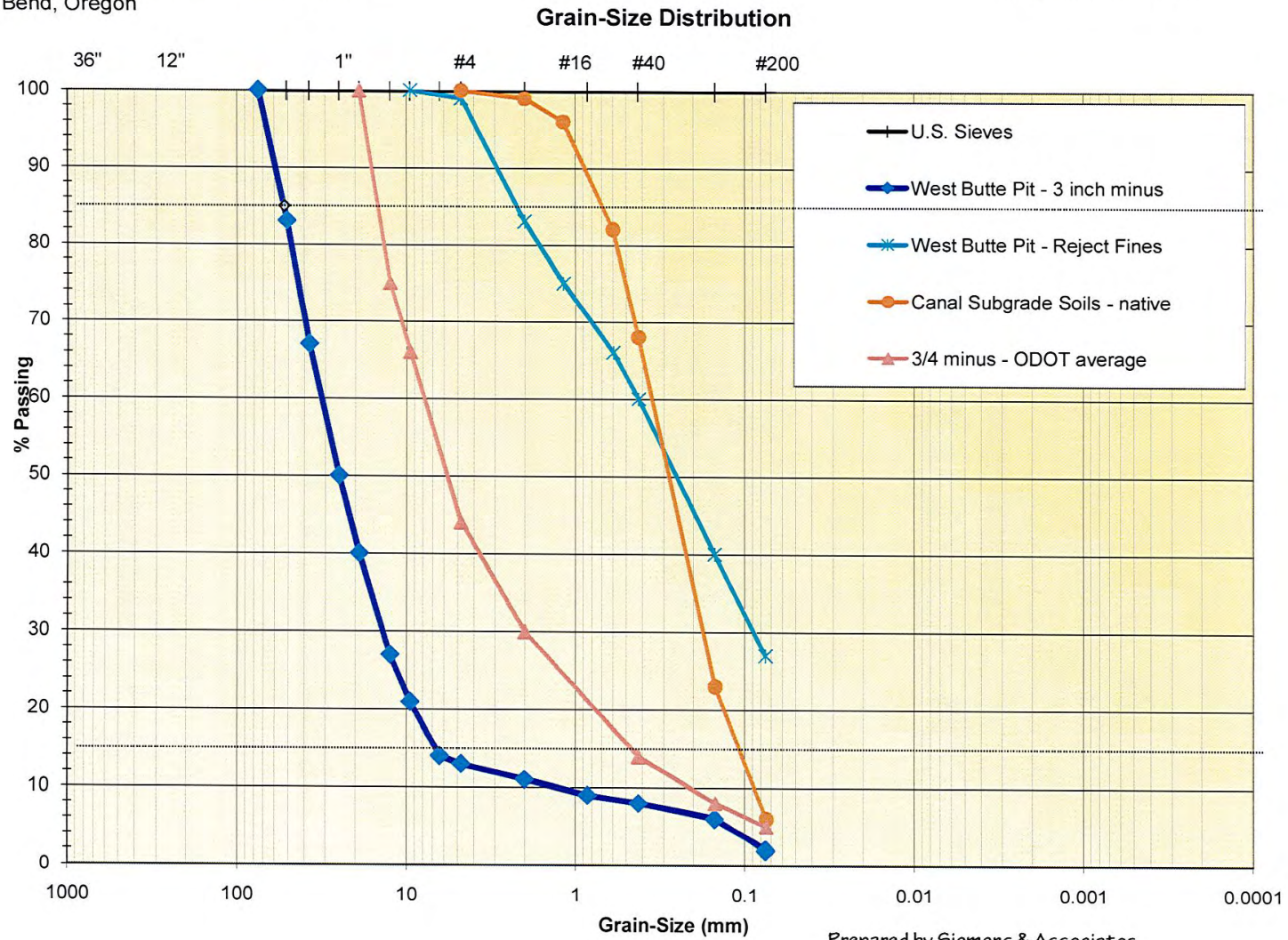


Respectfully submitted,
Siemens & Associates

J. Andrew Siemens, P.E., G.E.

Renews 4/30/2010

Addressee: 1 electronic
Enclosures: Grain-Size Distribution Curves



Prepared by Siemens & Associates
Bend, Oregon

LOCATION 4

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

April 5, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance – Final Observations

Gentlemen,

We have assisted your contractor (JAL Construction, Inc.) with the repair process which has taken place over the past few months. Our observations support a conclusion that the effort has resulted in an effective and efficient restoration likely to offer many years of service.

The conditions encountered as the work progressed were consistent with those anticipated as a result of the original reconnaissance and the repair process itself advanced in general accordance with our recommendations (described in letter to COID dated 1-29-'10) with a few modifications. It is our opinion that the contractor performed the work diligently to complete the task on time for a reasonable cost.

Before and after photographs:



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Bend, Oregon
fax: 503-296-2271

The repair included removal of erodible soils through the affected zone, replacement of the materials with a graded filter composed of successively finer layers from the bottom up all capped with a layer of basalt cobble and boulder rip rap. In addition, both canal banks were reconstructed using fine grained spoils from onsite excavation or from a silty import. Following completion of the repair, small erosion disturbance developed where the flow swept around the end of the check structure within the repaired area. We suspect that the current exposed an area where the rip rap was not as thick as planned (18 inches or more). This situation was addressed by excavation, placement of geotextile and thicker rip rap and then extending the check all the way across the canal. Finally, the check structure was added additional security by concrete slurry. The fix appears to have corrected the weakness following observations from a subsequent stock run.



Based on our exploration and observations through the reconstruction process, it is our opinion that the District should anticipate some minor adjustments in surfaces as flow through the repaired area identifies minor deficiencies; however, we are confident that the deep seated erosion potential has

been fully addressed such that the opportunity for future development of large scale cavities and subsequent canal collapse has been effectively blocked through this interval.

This report presents our professional opinion based upon visual review of the conditions encountered combined with previous geophysical measurement and interpretation. The conclusions and recommendations are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar repair in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct be of service and look forward to a long and prosperous flow through this section of canal. If you have any questions, just ask.

Respectfully submitted,
Siemens & Associates

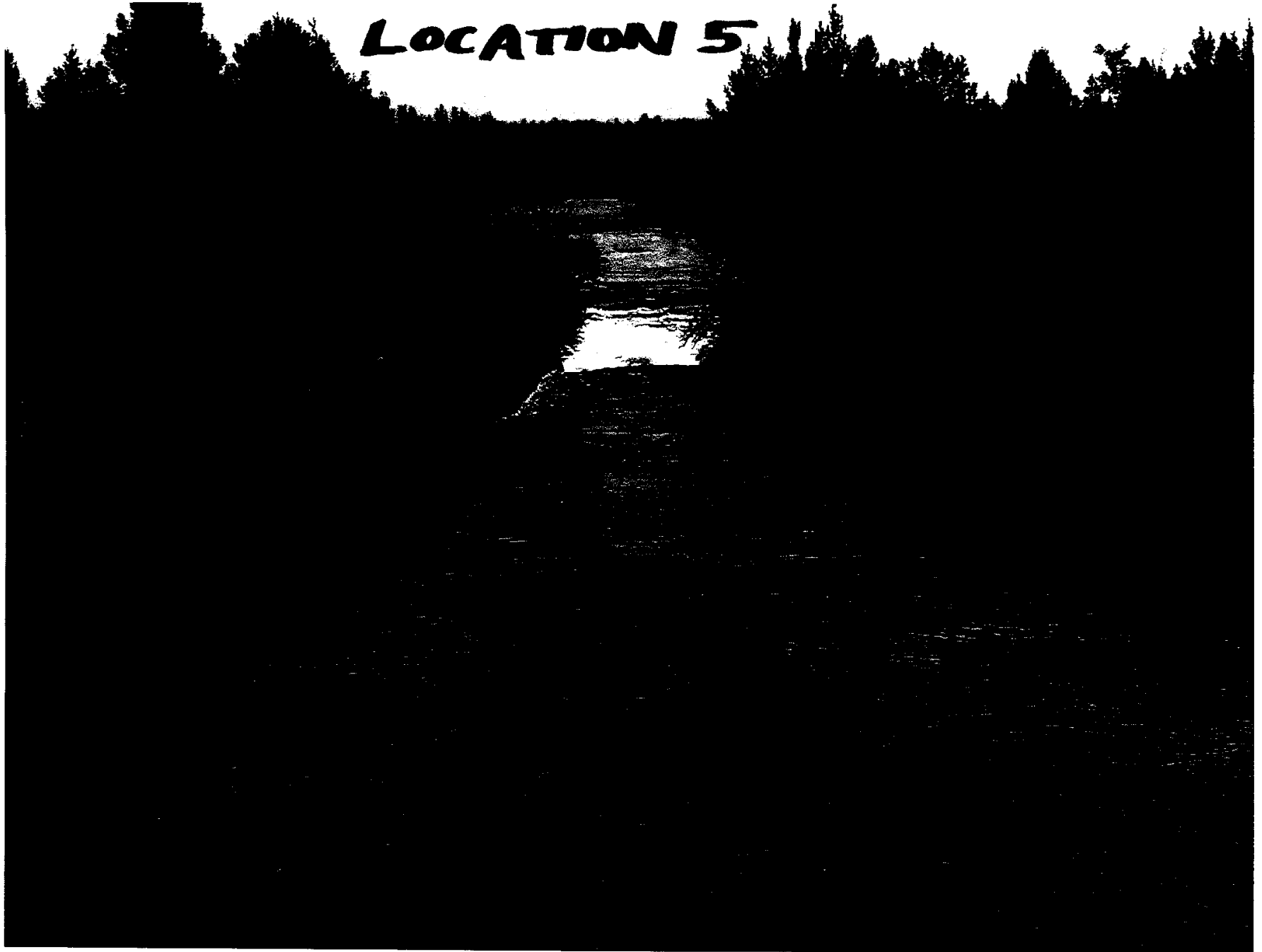


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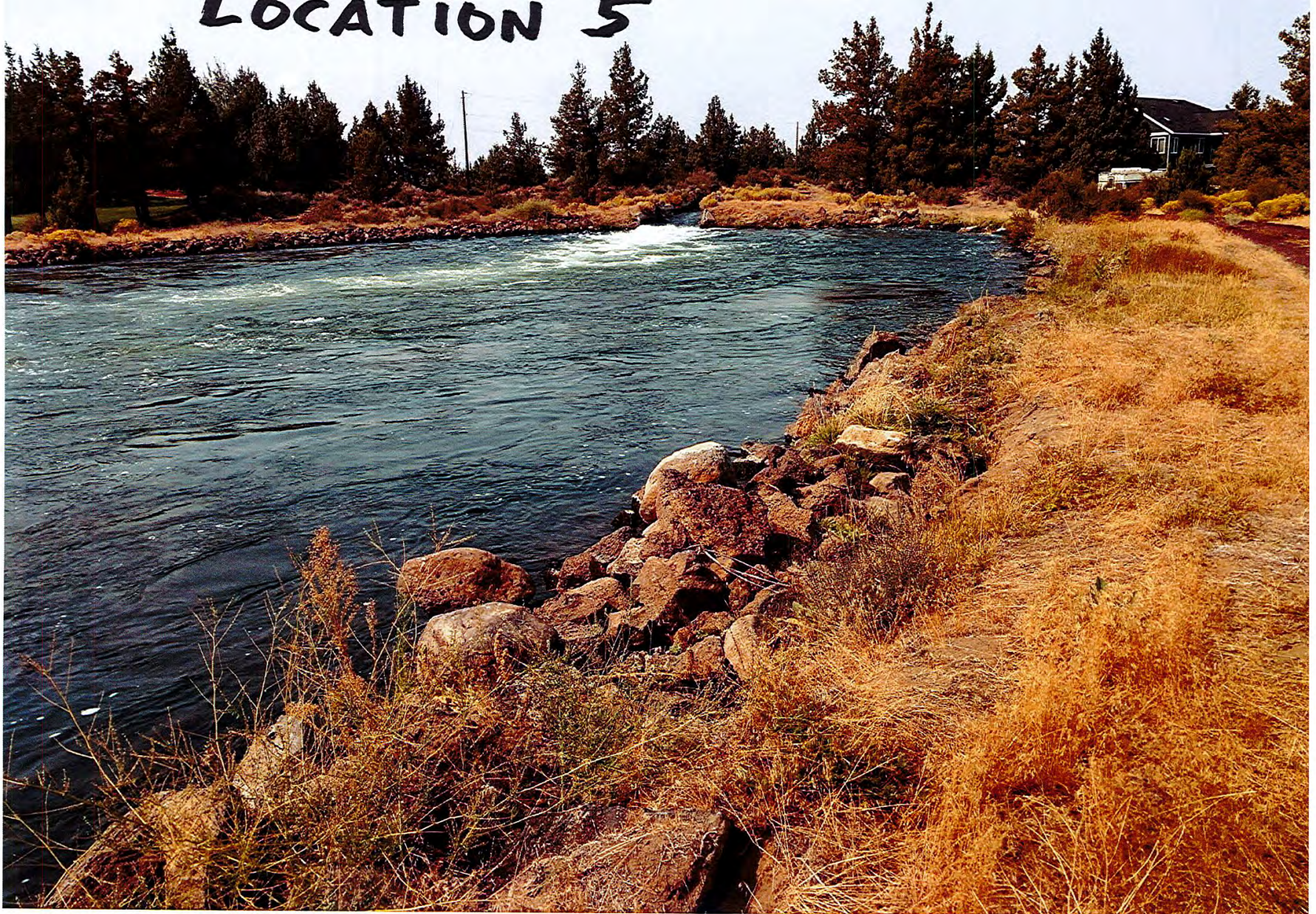
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Renews 4/30/2010

LOCATION 5



LOCATION 5





LOCATION 8





LOCATION 8



LOCATION 9

LarryRoofener

From: Mark Herbert <mherbert@wallacegroup-inc.com>
Sent: Tuesday, July 21, 2015 4:58 PM
To: Larry Roofener
Subject: Central Oregon Canal Report
Attachments: TWG15L033 Central Oregon Canal.pdf

Hi Larry:

Attached is our Geotechnical Reconnaissance Report for the Central Oregon Canal section we observed near Gosney Lane.

Thanks for providing this opportunity to help COID with its risk management effort on this section. Would you please have Craig review and sign our services agreement, or send us a different form of agreement if you prefer.

Please call if you have questions.

Best regards,

Mark

Mark V. Herbert, PE, GE
Principal Geotechnical Engineer

The Wallace Group, Inc.
62915 NE 18th St, Ste 1
Bend, OR 97701
P: 541.382.4707
F: 541.383.8118
C: 541.410.9800
mherbert@wallacegroup-inc.com



TECHNICAL MEMORANDUM

Date: July 21, 2015

To: Mr. Larry Roofener, Operations Manager
Central Oregon Irrigation District
1055 SW Lake Road
Redmond, OR 97756

From: Mark V. Herbert, P.E., G.E., Principal Geotechnical Engineer

Subject: **Geotechnical Reconnaissance Report
Central Oregon Canal, Upstream from Gosney Lane
Bend, Oregon**

Project No. 10574, Task 1



Background

Wallace Group, Inc. (Wallace Group) was retained by the Central Oregon Irrigation District (COID) to conduct a geotechnical reconnaissance of the Central Oregon Canal embankment, located approximately 500 feet upstream of the canal's intersection with Gosney Lane, about five miles east of Bend. We understand the canal embankment in this reach has leaked continually during irrigation season for several years, however, the seepage rate reportedly has increased recently. A section of embankment has reportedly slumped, indicating some movement of the embankment has occurred. The purpose of our reconnaissance was to evaluate the canal embankment to assist COID in both temporary monitoring and long-term repair efforts. The canal in this reach was formerly a raised flume, which was later replaced with a raised embankment.

A summary of the conditions encountered during our reconnaissance and preliminary recommendations are presented below.

OBSERVATIONS

The canal embankment ranges from about 6 to 12 feet above the surrounding topography. Embankment construction records are not known to exist, however, most regional canals were built with basalt rock rubble produced during canal excavation. Some native soil was likely blended with the rock rubble, otherwise, seepage would be

excessive. We observed seepage at several locations about 5 to 10 feet below the adjacent ditch rider road. Several, shallow Tee-handle probes revealed up to three feet of soft, saturated soils overlying what is likely basalt bedrock. A shallow pool of water was observed on an adjacent irrigation pasture, about 25 feet north of the embankment toe. The property owner reported the pool has existed in past years, but the volume of ponded water is greater this year. We did not observe flowing water, however, standing water was observed along the embankment slope. The water also relatively appeared clear, indicating erosion of fine soil particles was not significant.

Along the canal bank where the ponded water is located, we observed a section of embankment that appeared to have slumped about 1½ feet vertically. The soils below the slump are saturated and very soft. The COID ditch rider reported this earthen slump is relatively recent. The ditch rider road along this section appears that it may also be settling, although the magnitude may only be a few inches.

The canal embankment and bottom in this section appear to be of similar, basaltic boulder construction, so it is likely that seepage is occurring laterally through the northern embankment and through the canal bottom. COID reported that seepage has not been observed on the south side of the canal embankment, even though it is also raised several feet above the surrounding terrain.

CONCLUSIONS AND RECOMMENDATIONS

Based on our observations, it appears that failure of the northern canal embankment in the area observed is not imminent. Therefore, repair efforts can be completed when the current irrigation season ends. However, if seepage increases or if flowing water is observed on the canal bank, some short-term remedial measures may be required. We assume the seepage area will be monitored daily or at least weekly by the ditch rider. Evidence of increased seepage or fresh embankment sloughing should be reported to Wallace Group immediately.

We also recommend 6 to 8 survey hubs be placed on the ditch rider road and northern embankment in wet areas to allow periodic survey monitoring. We recommend 3 to 4 hubs be placed on the north edge of the ditch rider road, and a similar number placed on the embankment. We recommend the hubs be monitored monthly, with results of lateral and/or downward movement reported to Wallace Group.

Long-term solutions include piping this section of canal, and lining the canal with roller-compacted concrete and/or shotcrete. Short-term measures to reduce seepage include placing impervious fabric against the canal bank and bottom, however, this would require a temporary shutdown of the canal, if needed during irrigation season.

After irrigation season ends, we should re-evaluate the inside of the canal bank and bottom to provide additional insight concerning the observed seepage. Ideally, we should observe the canal just after the water is shut off, to observe for areas where water may be funneling through sinkholes or porous rock areas. It may be warranted to excavate a few test pits into the canal ditch rider road, or on the northern canal bank. However, backhoe exploration will disturb the existing embankment, thus any subsurface exploration should proceed with caution.

LIMITATIONS

Wallace Group's scope of services included a visual geotechnical evaluation of the existing conditions at the subject site and were performed using a mutually agreed upon scope of services. Our opinions, conclusions and recommendations are based on our observations and local experience with similar soil conditions. Variations from the conditions reported herein are possible and are sometimes sufficient to alter our conclusions. The Client must recognize that it is impossible to predict every subsurface condition that could be present. If new or additional information becomes available, we should be notified to evaluate the information and recommend an appropriate alternative course of action. The professional judgments expressed in this report meet the standard of care of our profession; however, no warranty is expressed or implied.

LOCATION 9



To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130800 Tax Lot: 00500, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature] 6.18.18
Sign Full Legal Name Date

CRAIG HORZEL
Print Full Legal Name

Central Oregon Irrigation District
Legal Name(s) on Title if Different from Above (Printed)

1055 SW Lake Court Redmond OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Deschutes



Signed or attested before me on June 18, 20 18 by

[Signature]
Notary Public - State of Oregon

My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 181201B0 Tax Lot: Canal Lot, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

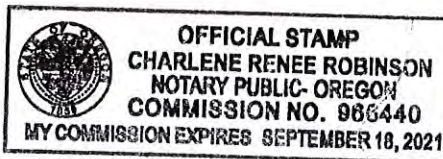
CRC Sign Full Legal Name 6.18.18 Date

CRAIG HORBELL
Print Full Legal Name

Central Oregon Irrigation District
Legal Name(s) on Title (if Different from Above (Printed))

1055 SW Lake Court Redmond OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Deschutes



Signed or attested before me on June 18, 20 18 by

Charlene Renee Robinson
Notary Public - State of Oregon

My Commission expires: Sept 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130500 Tax Lot: 01200, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

6.18.18

Sign Full Legal Name

Date

CRAIG HORTZELL

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) on Title if Different from Above (Printed)

1055 SW Lake Court Redmond OR

97756

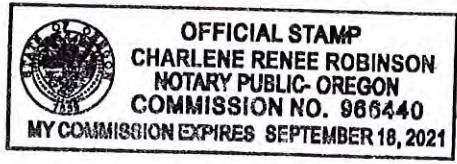
Mailing Address - Street

City

State

Zip

State of Oregon
County of Deschutes



Signed or attested before me on June 18, 20 18 by

[Handwritten Signature]

Notary Public - State of Oregon

My Commission expires: Sept 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130600 Tax Lot: 01600, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

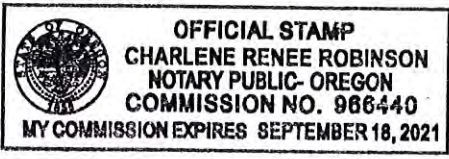
[Signature] Sign Full Legal Name 6.18.18 Date

CRALG HORN
Print Full Legal Name

Central Oregon Irrigation District
Legal Name(s) on Title if Different from Above (Printed)

1055 SW Lake Court Redmond OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Deschutes



Signed or attested before me on June 18, 20 18 by

[Signature]
Notary Public - State of Oregon

My Commission expires: Sept 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

ALLEN Jason * OPRD

From: Jude Hanson <judehanson@yahoo.com>
Sent: Monday, June 18, 2018 11:53 AM
To: JOHNSON Ian * OPRD; ALLEN Jason * OPRD
Subject: Central Oregon Canal nomination (Ward road to Gosney Road)

Sirs,
I would like to add my support to the nomination you will be reviewing on June 22nd on Redmond. There are only so many ways to say how important saving this stretch of Oregon's canal system is to future generations of citizens. There has been a lot of opposition as well. This is a still functioning section of the original canals in Central Oregon and should continue to be viewed as such - not some section that is to be bypassed by the irrigation district just to satisfy their interests.
One of the properties that adjoins this nominated section is owned by the Parks and Recreation district and they have, in past conversations, expressed an interest in a public park at their location so everyone would have a publicly supported area to view this piece of history.
Thank you for your time and attention to this nomination.

Judith Hanson
Bend, OR

Sent from my iPad

ALLEN Jason * OPRD

From: Zechariah Heck <Zechariah.Heck@deschutes.org>
Sent: Wednesday, April 11, 2018 10:04 AM
To: 'Pat Kliewer'
Cc: Jenna; Aleta Warren; Steven.Liday@MillerNash.com; Jeff Perreault; Suzanne Grund; Jude Hanson; ALLEN Jason * OPRD; Ian Johnson; Zechariah Heck
Subject: RE: Site visit to Ward-Gosney Historical Canal nomination

Hi, Pat.

I want to clarify a few issues that you raised in your email. The HLC meeting on April 16 will be a public meeting to review the Central Oregon Canal (Ward Rd. to Gosney Rd. section) nomination to the National Register of Historic Places. This special meeting is being held by the HLC as the State Historic Preservation Office (SHPO) has requested comments on the nomination from the HLC. A similar request for comments has been sent to the Board of County Commissioners. In this context, the HLC is best described as a “commenting agency.”

The upcoming HLC meeting will not be a land use hearing. You have filed a proposed nomination to the State of Oregon, not with Deschutes County. Thus, the Deschutes County procedures ordinance does not apply to the given proposed nomination. At no point has staff discouraged HLC members from visiting the site. Ian Johnson with SHPO stated there is no requirement for the HLC to make a site visit. In fact, as you noted in your email, there are no requirements for how the HLC conducts its review or receives public comments other than “public meeting” statutes.

My comment in response to Ms. Walden spoke more generally to ex parte contacts, a broad precept designed to ensure impartial decision makers. I passed along Ms. Walden’s invitation to visit the canal to the HLC members. Although it is arguably not formally required, at the upcoming meeting I will recommend to the commissioners they disclose any ex parte contacts. The intention of such a statement is not to discourage a site visit, but to ensure a fair and transparent public meeting.

I included a link to the meeting agenda and packet to this email. Staff is recommending to the HLC they allow written comments until April 20 and then make a recommendation during a subsequent public meeting, possibly on April 30. Please let me know if you have any questions.

Lastly, as a heads up, the HLC may ask what updates have been made since the last nomination of this section they reviewed. It would be beneficial if you could speak to the updates.

Link to meeting agenda and packet - <http://deschutescountyor.iqm2.com/Citizens/Default.aspx>



Zechariah Heck | Associate Planner

DESCHUTES COUNTY COMMUNITY DEVELOPMENT

117 NW Lafayette Avenue | Bend, Oregon 97703

PO Box 6005 | Bend, Oregon 97708

Tel: (541) 385-1704 | www.deschutes.org/cd



Disclaimer: Please note that the information in this email is an informal statement made in accordance with DCC 22.20.005 and shall not be deemed to constitute final County action effecting a change in the status of a person's property or conferring any rights, including any reliance rights, on any person.

From: Pat Kliewer <pkliwer@hotmail.com>

Sent: Friday, April 06, 2018 3:58 PM

To: Zechariah Heck <Zechariah.Heck@deschutes.org>; Jenna <jewalden@gmail.com>; Aleta Warren <a.warren.bend@gmail.com>; Steven.Liday@MillerNash.com; Jeff Perreault <jeff.a.perreault@gmail.com>; Suzanne

Grund <sgrund@bendcable.com>; Jude Hanson <judehanson@yahoo.com>; ALLEN Jason * OPRD <jason.allen@oregon.gov>; Ian Johnson <ian.johnson@state.or.us>

Subject: Re: Site visit to Ward-Gosney Historical Canal nomination

Hi! I hope you are well. I enjoyed talking to you after the last HLC meeting and sharing how the HLCs since 1986 have reviewed and celebrated national register nominations that furthered the written local history, and how critical site visits by all members of the HLC are.

I noticed that Nick Lelack took at least two of the six full color copies of the nomination of the Central Oregon Canal that I (at a substantial personal cost) printed from the SHPO web site and provided for the members of the HLC that night. He said that the other four members who chose to keep their copies should not read it until he directs them to do so. Once I handed it out, it became public record. It was made public record when it was posted on the SHPO web site.

Your answer to Jenna led me to think that you are assuming a certain type of hearing on April 16 and the staff is again discouraging HLC members from visiting the site. If you want them to share their pre-meeting observations at the hearing, that is great. They can all learn from one another and those attending and speaking at the meeting can refer to those observations in their comments. That is what they are supposed to do; but it is not a reason to discourage the HLC from a site visit we have been talking about for over 6 months and that the NPS wrote about in their letter to the Oregon SHPO.

Are you assuming that the April 16 agenda for the review of the nomination before the HLC will be listed as a quasi-judicial hearing, including having the chair read the required quasi-judicial procedural opening statement with the commissioners declaring ex parte contacts and prior knowledge of local history, followed by the quasi-judicial order of hearing: staff report on the application meeting or not meeting the applicable criteria, the presentation by the applicant, those in favor of the application, those opposed and then the applicant's rebuttal of opposition -then a motion, second, discussion and a vote.

I like the structure of quasi judicial hearings and think it makes a predictable, orderly and fair meeting. But, is it appropriate in this situation? Did the SHPO tell you what procedures to follow? I have asked and they say there is great variation among jurisdictions and HLCs.

If the County is going, for the first time since 1986, to see this as a local land use application and follow quasi-judicial procedures and discourage the HLC from reading the nomination and performing a site visit, has the County met all the procedural requirements: a timely notification of the Applicant and property owners and posting the site, as required for a quasi-judicial hearing on April 16? Has the application been given a case file number? The burden of proof would be on the applicant. What County criteria would be used? What is at the conclusion of the hearing?

However, if the commission is acting solely in an advisory capacity to share its boots-on-the-ground observations of the appearance and integrity of the actual historic site and its knowledge of local history, and to discuss the original historical information and evaluation of integrity in the nomination, how can you do that without a site visit and reading the nomination?

If there is no local application, no local criteria, and no site visit, what procedures are you following?

Pat Kliewer
60465 Sunridge Drive
Bend, OR 97702
pkliwer@hotmail.com
Phone 541 617-0805

From: Zechariah Heck <Zechariah.Heck@deschutes.org>
Sent: Friday, April 6, 2018 1:17 PM
To: 'Jenna'
Cc: Pat Kliewer
Subject: RE: Site visit to Ward-Gosney Historical Canal nomination

Jenna,

I will pass along your invitation to the HLC. However, please understand that we do not have the resources available to hold a site visit with the entire HLC because of public meeting requirements. If individual commissioners want to make a site visit to the proposed canal historic district, they are welcome to. If any ex parte contact is made, they will need to announce it at the meeting and explain the nature of the contact.

Thank you,



Zechariah Heck | Associate Planner
DESCHUTES COUNTY COMMUNITY DEVELOPMENT
117 NW Lafayette Avenue | Bend, Oregon 97703
PO Box 6005 | Bend, Oregon 97708
Tel: (541) 385-1704 | www.deschutes.org/cd
  

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From: Jenna [<mailto:jewalden@gmail.com>]
Sent: Friday, April 06, 2018 12:28 PM
To: Zechariah Heck <Zechariah.Heck@deschutes.org>
Cc: Pat Kliewer <pkliwer@hotmail.com>
Subject: Site visit to Ward-Gosney Historical Canal nomination

Dear Mr. Heck;

The canal water turns on April 9th. When the water comes on, one will be unable to see many of the "Contributing Structures in the Historic District" as they will be covered up by water.

We would like to extend the invitation again to members of the Historic Landmark Commission before the April 16th meeting that reviews our nomination. We would welcome a site visit. Please let us know if that is possible.

Sincerely, Jenna Walden
Property owner

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Tuesday, June 19, 2018 8:06 AM
To: Anne Herrick Diemel; JOHNSON Ian * OPRD
Cc: ZELLER Tracy * OPRD; OLGUIN Robert * OPRD
Subject: RE: Central Oregon Canal nomination (Ward Road to Gosney Road)

Hello Anne,

Thank you for taking the time to provide our office with your thoughts on the nomination of the Central Oregon Canal Historic District. Your message has been entered into the official record, and will be provided to the State Advisory Committee on Historic Preservation for their consideration.

Cheers,
-Jason

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Anne Herrick Diemel [<mailto:anneherrick@mac.com>]
Sent: Monday, June 18, 2018 5:16 PM
To: JOHNSON Ian * OPRD; ALLEN Jason * OPRD
Subject: Central Oregon Canal nomination (Ward Road to Gosney Road)

To whom it may concern,
I am writing in support of the nomination you will be reviewing on June 22 in Redmond.

I believe it is vitally important to save this stretch of Oregon's canal system, both for the present generation and for generations to come. I am aware there is a lot of opposition to this as well. This is a still functioning section of the original canals in Central Oregon and should continue to be viewed as such - not some section that is to be bypassed by the irrigation district just to satisfy their interests. One of the properties that adjoins this nominated section is owned by the Parks and Recreation district and they have, in past conversations, expressed an interest in a public park at their location so everyone would have a public supported area to view this piece of history.

Thank you for your time and attention to this nomination.

Anne Herrick Diemel
541-621-9337
anneherrick.com

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Thursday, June 07, 2018 10:41 AM
To: 'Deb Schallert'
Cc: CURRAN Chrissy * OPRD; ZELLER Tracy * OPRD; ALLEN Jason * OPRD
Subject: FW: COC Canal Nomination Public Hearing

Hello Deb,

Tracy will be sending Pat's comment below asking you to recuse yourself from the Central Oregon Canal hearing out to the entire SACHP. As stated in the OAR, we'll sort this out at the meeting per the procedures. If there is an actual or perceived conflict of interest as defined in the OARs, then you should recuse yourself. But I would encourage you to not to do so merely as a precaution. You can get a bit of advice from the Ethics Commission ahead of time if you like. Let me know if you want to do that and I can help there, or if there are any questions that I can answer for you.

You can find the link to the OAR that discusses recusal here:

https://secure.sos.state.or.us/oard/viewSingleRule.action;JSESSIONID_OARD=tK_bSasMZ4XQ88JsdErgxJFLx6PMPiGX_d2JYZnDN6TZWog8tEV8!-330355351?ruleVrsnRsn=188769

Definitions for actual and potential conflict of interest are here:

https://secure.sos.state.or.us/oard/viewSingleRule.action;JSESSIONID_OARD=tK_bSasMZ4XQ88JsdErgxJFLx6PMPiGX_d2JYZnDN6TZWog8tEV8!-330355351?ruleVrsnRsn=188760 .

Ian

From: JOHNSON Ian * OPRD
Sent: Thursday, June 07, 2018 10:33 AM
To: Pat Kliewer; ALLEN Jason * OPRD
Cc: Noah Walden; Jenna; Jude Hanson; Gary Grund; Suzanne Grund
Subject: RE: COC Canal Nomination Public Hearing

Thanks for sending this request to me Pat.

The request will be made part of the public record and will be forwarded to the Committee.

The procedures for declaring a conflict of interest and recusal of a committee member are stated in Oregon Administrative Rule 736-050-0260.

Ian

From: Pat Kliewer [<mailto:pkliewer@hotmail.com>]
Sent: Thursday, June 07, 2018 9:51 AM
To: ALLEN Jason * OPRD; JOHNSON Ian * OPRD
Cc: Noah Walden; Jenna; Jude Hanson; Gary Grund; Suzanne Grund
Subject: COC Canal Nomination Public Hearing

Hello! I hope you are both well!

On behalf of my clients, Jennifer Egusa, Noah Walden, Judith Hanson, Tony Licitra, and Suzanne and Gary Grund, I respectfully request that the SACHP chair, Deb Schallert, recuse herself from participating in the public hearing in Redmond on June 22, 2018 of the nomination of the Central Oregon Canal Historic District (Ward Road-Gosney Road Segment).

I believe Ms Schallert was correct when she recused herself during the public hearing and deliberations on the nomination of the Pilot Butte Canal Historic District (Yeoman Road - Cooley Road Segment).

She has a perceived conflict of interest with her position at PGE.

COID is an owner of a 13.14 acre parcel that is crossed by the canal in the proposed historic district and it operates and maintains the COIC Canal. COID has a financial agreement with PGE about electricity produced by hydro-power that is currently generated and is planned to be generated by COID.

The Oregon SHPO web site states the following:

Deb Schallert, Chair

Deb Schallert joined Portland General Electric (PGE) in 1995, bringing to PGE 14 years of experience in parks and recreation management and administration with the Oregon Parks and Recreation Department (OPRD). At OPRD, Schallert worked with the Governor's Office of Natural Resources, the Oregon Economic Development Department, and the 1987 Oregon State Legislature, and also served as a park ranger and manager. Schallert now serves as the permitting manager for PGE's proposed Cascade Crossing Transmission Project and manages licensing issues associated with lands, aesthetics and cultural resources/historic preservation.

Thank you for considering my request.

Best wishes.

Pat Kliewer
60465 Sunridge Drive
Bend, OR 97702
pkliwer@hotmail.com
Phone 541 617-0805

Central Oregon Canal Nomination to the National Register of Historic Places

I understand you are considering the nomination of Central Oregon Canal to the National Register of Historic Places. I support the nomination.

Irrigation has had a major influence on the development patterns and land uses in the tri-county area. Many of the roads in Bend take their names from the ranches and farms made possible by irrigation. Wells Acres Road, Arnold Market Road, Butte Ranch Road, Reed Market Road and Butler Market Road just are some examples of how agriculture, made possible by irrigation, has shaped land uses and history of Bend.

Forestry and agriculture were the driving forces in settlement and development in Deschutes, Crook, and Jefferson Counties until the 1980's when tourism took off.

I think it is important that future generations have a tactile experience with the one of the major factors influencing how the tri-counties came to be what they are today. That tactile experience is seeing the running water in the heart of the major population center, hearing the water move in a canal, feeling the humidity, and experiencing the strength of the irrigation water in the decades old canals.

Possibly soon most and maybe all of the canals will be modified to prevent water loss. I support the movement to conserve water and return it to the rivers and streams for fisheries, recreation, aquatic health and the riparian vegetation we have all learned to recognize. At the same time we should offer an opportunity experience the history of how that water, through decades of irrigation, has made the tri counties what they are today.

Thank you for your consideration

Colin Michael Johnson

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Saturday, June 16, 2018 8:48 PM
To: Zoltan Kasko
Cc: ZELLER Tracy * OPRD; ALLEN Jason * OPRD; OLGUIN Robert * OPRD
Subject: RE: Canal preservation

Mr. Kasko,

Thank you for providing your emailed comments below to me. Our office will add them to the official public record and forward them to the State Advisory Committee on Historic Preservation for the upcoming June 22nd meeting at the Deschutes County Fairgrounds. You can find the meeting details here: https://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspxhttps://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx

Please consider coming to the meeting if you are able.

I have copied the National Register staff for their information.

Thank you.

Ian Johnson
Associate Deputy SHPO

From: Zoltan Kasko [zoltan.kasko32@gmail.com]
Sent: Saturday, June 16, 2018 10:33 AM
To: JOHNSON Ian * OPRD
Subject: Canal preservation

To whom it may concern,

This is Zoltan Kasko and I am fortunate enough to have spent time at properties along the canal with friends who live there . I have seen and experienced the amazing wildlife along that particular stretch of the canal and in my opinion it would be very harmful to not leave this section open for remaining wildlife as a sanctuary. After all we are talking about a long time of established source for these creatures. Another reason to preserve it is the wonderful hands on history which has captured my two teenage children's attention to the fullest and made them realise trough visual experience, how much great and hard work it took to establish sustainable life in Central Oregon, making them appreciate beeing in Bend even more. I am from Hungary and I know that in Europe we have realized that keeping history and wildlife has to be priority because it can not be replaced and one can only learn from it if it is cared for.
Best regards
Zoltan Kasko

June 8, 2018

Pat Kliewer
60465 Sunridge Drive
Bend, OR 97702

Commissioners Tony DeBone and Phil Henderson

Attn: BOCC
Deschutes County
PO Box 6005
Bend, OR 97708-6005

Re: Letter to the Oregon SHPO

Dear Commissioners,

Hello! I hope you are both well.

Last October you signed a letter to the Oregon State Historic Preservation Office about the nomination of the segment of the Central Oregon Canal between Ward Road and Gosney Road. Unfortunately, the author of the letter did not do you any favors and did not know many facts on the topics covered. All of your points were erroneous.

I will take the time to cover only the historic preservation topics here to make sure you don't make the same mistakes again. You were writing to the experts on historic preservation at the Oregon State Historic Preservation Office and to the State Advisory Committee on Historic Preservation. They knew your letter showed your ignorance. I was embarrassed by the letter and felt shame when the members of the State Advisory Committee on Historic Preservation looked at one another in surprise when it was read by staff.

I hope you do not have the same author again and the same mistakes are not made again. You and the county deserve to look more informed.

One of the obvious errors is on the topic of maintenance and repairs of the small segment of the canal that is being nominated to the National Register of Historic Places (NRHP).

MAINTENANCE AND REPAIRS

COID said of listing the historic district "a listing would substantially degrade the District's ability to serve their needs if there was a break or leak in the canal that needed to be fixed."

COID thinks its interests will be served by spreading fear that it will not be able to maintain the canal in the historic district, if it is listed on the NRHP. That is baloney, as I said in a nicer way in my oral testimony to the SACHP.

The protection of the historic district would be done right here, at the Deschutes County Historic Landmarks Commission, which you appoint, and the Deschutes County Board of County Commission - you.

During the past two years, there have been no problems of the HLC preventing COID from maintaining and repairing the Pilot Butte Historic District (Yeoman Road-Cooley Road Segment.) I expect the same for this segment of the Central Oregon Canal.

Unfortunately, COID's dramatic comment to engender sympathy, shows that COID does not check the accuracy of its statements.

Has County planning staff advised you that the County's Historic Preservation Code allows for ordinary maintenance and repairs and for emergency repairs or necessary emergency The BOCC itself would be the final decision makers of any proposed alterations or demolition if the proposed historic district is listed on the NRHP.

The County's Historic Preservation Code states at 2,28,090.J:

“Nothing in DCC 2.28 shall be construed to prevent the ordinary maintenance or repair (e.g. painting) of exterior architectural features of a building or structure which does not involve a change in design or type of materials.”

2,28.090. K. states,

“A change in design or type of materials shall be allowed if the County building official states in writing that the repair is necessary for personal or public safety due to an unsafe or dangerous condition in or on the building or structure.”

Furthermore, Sterns Waste in the historic district is owned by the COID. More information about how it is used in a emergency is in Section 7 of the Nomination on pages 25 and 26.

Conclusion: The preservation of the historic district would be done locally with you, the BOCC, being the decision maker. Any decision of the HLC could be appealed to the BOCC. The final decision is by the BOCC, locally.

Also, do not make the following mistake.

Section 106

One of COID's attorneys at the public hearing before the HLC, Matt Singer, said preservation of the Central Oregon Canal can be done via the Section 106 process, without having a segment listed on the National Register (NRHP). This is BS. It is misinformation and another misleading and erroneous comment meant to throw you off base. I think you know it is false.

There is no segment of the Central Oregon Canal that is locally listed as a historic resource on your comprehensive plan or listed on the NRHP.

The Oregon Administrative Rules for implementing Goal 5, Historic Resources and the Deschutes County Historic Preservation Code apply to preservation of only those segments of

canals that are either listed on the Deschutes County Comprehensive Plan or listed on the National Register of Historic Places.

The introduction to your Historic Landmarks Code tells its purpose and applicability. So, there is no protection of the proposed segment of canal to the NRHP until it is listed on the NRHP or the local Comprehensive Plan through BOCC decision. In Oregon, preservation is done at the local level with public involvement.

On the other hand, Section 106 forms are used exclusively to have the Oregon SHPO and the NPS review proposed projects that are either regulated by federal agencies or that are all or partially funded by federal money (federal undertakings). Therefore, all activities of the COID that are not funded by the federal government nor regulated by the federal government do not require a Section 106 form to be completed and submitted at all.

Although the National Register listing does not provide much protection for a property other than through the relatively passive and academic Section 106 review process of proposed projects that involve federal funding or federal regulation, preservation in Oregon is done locally through the local elected officials and their appointed Landmarks Commissions, using a public hearing process and applying local historic preservation codes

The BOCC itself would be the final decision makers of any proposed alterations or demolition if the proposed historic district is listed on the NRHP.

SIGNIFICANCE AND INTEGRITY OF THE NOMINATED SEGMENT

The third of four topics I will mention in this letter was COID's charge that we should have nominated a segment of the canal in farming country in Alfalfa. Here is my response that meets the real criteria for significance and integrity.

The Central Oregon Canal Historic District has an exceptional degree of integrity and is a good example of a pioneer era canal in Central Oregon. Its location has not been altered over time, and it continues to display the distinctive characteristics of the historic period canal construction, an irregular, open, trapezoidal- shaped canal, made with local rock and soil by horse teams, hand tools and custom-designed steam drills. It represents the function and appearance of the water conveyance system, as it appeared during the historic period. The district is of sufficient length to portray the purpose, the construction challenges, materials, techniques, and methodology of construction. The headgates and pipes to 16 ditches, two laterals and one sub-lateral, and over a dozen irrigation ponds that serve irrigated and cultivated land next to the canal, illustrate how the canal functions to provide irrigation water to those with water rights. It also demonstrates the results of a lack of water on land with no water rights.

The structures at Stearns Waste are only 30 years old, but they replaced similar historic structures at the same location. Stearns Waste is an example of how the irrigation district staff deals with emergencies that can develop if water goes out of its banks downstream. Burt Chute and the remains of the historic wooden flume are reminders of the substantial challenges posed by lava tubes and sudden drops in elevation along a canal that flowed by gravity and could not go around obstacles. The wooden flumes were leaky and required constant maintenance. All of the historic wooden flumes that were on the main canal have been replaced with metal pipes

or embankments. Burt Chute and the piers for the Bear Creek Ranch Bridge were formed by hand with concrete mixed and poured on site.

Workmen had to break up and remove massive amounts of rock, bridge caverns with wood and concrete flumes, and build huge embankments. The high degree of integrity of setting, location, design, materials, feeling, association, workmanship of the historic district differentiates it from the remainder of the Central Oregon Canal. The canal in the historic district is the only unaltered stretch of the entire canal that conveys the full volume of water (530 cfs) and displays evidence of all the practical solutions to the unique historic construction challenges in 1905, 1907 and 1914.

The canal in the district has a distinctive lack of uniformity, an undulating bed, irregular side slopes, heavily rip-rapped or stacked rock embankments, cuts, and rapids caused by large rocks left in the bed as it drops 50 feet in elevation. The challenging rock, use of native materials, and practical, problem-solving methodology, resulted in the stretch looking and sounding like a river flowing naturally. The berms on the edge of the hills on the downhill side are distinctive and show the difficult labor the teams and men went to in order to place the canal at the necessary elevation, so the system would flow for the entire length that was planned. It retains the feeling and association with the surveyors who determined its exacting route, so it could flow entirely by gravity and serve all of the settlers and patrons. The canal varies greatly in width and depth, reflecting the engineers who calculated its necessary volume so that it would carry the water needed to irrigate future farms for the length of the canal, the superintendents and supervisors who adapted plans to meet conditions encountered in the field, specialists who blasted tons of rock with specialized mining equipment ordered the previous year to speed up work on the Pilot Butte Canal, and the hundreds of laborers with horse teams who dug, scraped, and moved thousands of loads of rock and soil, while trying to meet construction deadlines that were set in contracts between the canal developers and the State of Oregon.

The district has the widest variation of terrain and style and the tallest berms on the canal. The variations demonstrate that a narrow and deep canal with fast volume in a sloped area can carry as much water as a wide, shallow canal with a slower flow in flatter terrain. The tremendous variations in the district as seen in the survey data show that the nominated district displays all the designs and methodology found throughout the entire canal: irregular winding rocky portions with large built-up embankments on the downhill side; portions with vertical sides and others with sloping rip-rapped and stacked rock sides; smooth and sandy level portions; portions with two cuts and no embankments; portions with and without a ditch rider road atop the embankments; portions with short embankments used to discard the materials taken from the bed; portions that were blasted and portions that were scraped.

Due to the thin topsoil and rock in the district being undesirable for farming, no settlers purchased land along the canal in the district when it was being constructed. The presence of the canal did attract settlers to some, but not all, of the land along the canal in the historic district, because most of it did not have water rights. Rural residential development on 1 to 3-acre lots with water rights occurred between Ward Road and the Bear Creek Ranch Bridge, in 1/4th of the district, primarily between 1965 and 1975. However, most of the historic setting, with its farms, rolling hills, rock outcroppings, and native juniper and sagebrush vegetation that was present in 1921 near and alongside the canal on the eastern 3/4ths of the district, remains. The historic district uniquely demonstrates the power of the canal and irrigation water to attract settlers, and the progression of settlement from large to smaller parcels over the past 100 years. The largest parcels along the district's length have never been irrigated or developed, and

historic vegetation was never cleared. The nominated stretch uniquely displays both the historic setting at the time the canal was constructed and the use of the irrigation water for beneficial uses and agriculture. The small irrigated hobby farms and larger commercial farms today with irrigation ponds and irrigated pasture for livestock represent the purpose of the canal: to attract settlers and farmers to Deschutes County by supplying irrigation water to the arid land. The area is accessible to the public, especially along the 80-acre parcel owned by Bend Park & Recreation District. Its interpretation can be achieved in an attractive, well-organized fashion without crowding or overwhelming the resource itself.

BRASADA RANCH SEGMENT OF THE CENTRAL OREGON CANAL

The last topic is about the failed nomination of the segment of the Central Oregon Canal at Brasada Ranch. This is another topic that the county staff and officials mention that is flat out wrong and everyone at the SHPO and the SACHP knows it. Have you been there? Do you understand what COID was trying to preserve there? The following is a portion of Section 8 of the actual nomination that addresses this issue:

COMPARISON OF THE CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD – GOSNEY ROAD SEGMENT) WITH THE BRASADA RANCH SEGMENT



Photo looking southwest from the stilling pond on the east bank of the Dry River, across the site of the Powell Butte Siphon, stave pipe and trestle. Some remains of the historic flume outlet structure are in the foreground.¹

In 2017, the National Park Service determined that certain original historic features of the Brasada Ranch Segment of the Central Oregon Canal were eligible for listing on the National Register of Historic Places. But, due to lack of owner consent, the proposed historic district was not listed.

The segment is in the Dry River Canyon between Alfalfa and Powell Buttes, at Township 16 South, Range 14 East, Section 28. Brasada Ranch is a private, 1,800-acre, gated, golf community and resort with nearly 1,000 residential lots (with more phases being planned), an 18-hole golf course, a restaurant and overnight lodging. There is no agriculture in the ranch. This is the site of the former historic Powell Butte Siphon, that included the impressive wood

¹ Photo by Patricia Kliewer, taken on December 10, 2017.

stave pipe, previously described in this nomination, that was designed by Deschutes Irrigation and Power Company's project engineer Charles M. Redfield. (The COID nomination erroneously attributes it to Levi Wiest)

The DI & P Co. canal construction crews completed the open canal to Alfalfa in 1907. In the fall of that year, the crews were north of Alfalfa at the spot that they needed to cross the 65-foot-deep Dry River canyon. The crews built an intake structure at the top of the west bank of the river gorge that would funnel water from the 20-foot wide open canal into a 5-foot diameter wooden pipe. Water dropped into the wire-wrapped redwood pipe, called a stave pipe. The stave pipe transported the water down the west side of the canyon wall, across the dry river bed, and up the east side of the canyon, using the principal of a siphon. There, the water dumped into an elevated wooden flume that was mounted on a wooden trestle. The flume transported the water for the short distance to the outlet structure and then into a small stilling pond. The pond was at the newly constructed section of open canal that delivered water north to Powell Butte, on the east side of the Dry River. The structures allowed the irrigation company to connect the two open canal segments, one on either side of the Dry River that were already constructed, both north and south of the location.

The parts for the siphon pipe were made to Redfield's specifications by the Douglas Fir National Pipe Company of Olympia, Washington. The pipe was 1,620' long and 56" in diameter.² The canal and pipe carried enough water to irrigate 12,000 acres. A camp composed of 35 men and 18 horse teams installed the trestle and redwood pipe. The pipe was partially buried across the river bed. While the intake structure, the trestle and flume, and other structures were being constructed, and the pipe was being assembled, crews were also working on the canal north of the siphon to Powell Butte. When the siphon was completed, the water was flowing for the first time into the open 16' wide and 4' deep irrigation canal that was heading to Powell Butte. The trestle and pipe were completed in January 1908 for a total cost of \$10,000. During the 1908 irrigation season, water was flowing in the Central Oregon Canal for 45 miles across the high desert, from the Deschutes River to Powell Butte. By 1908 the main canal was completed

A bottleneck had been identified in the Ward Road to Gosney Road segment, which was enlarged. Lateral construction continued, and the system was enlarged in some locations, including a second time at the Ward Road to Gosney Road segment, through 1914. Both the Brasada Ranch site and the Ward Road to Gosney Road segment display how the irrigation company met unique geologic and geographic challenges to build the canal to Powell Butte.

COID replaced the aging historic structures at the Powell Butte Siphon in 1978. The modern intake structure is concrete, with power driven gates. The steel siphon pipe is not visible because it is completely buried along Alfalfa Road, a paved two-lane county road that traverses the center of the river bed. The unused wooden trestle was disassembled in 1993-1994. Re-usable lumber was stacked northeast of the stilling pond. Today, part of the trestle lumber is adaptively re-used as a golf cart path to bridge a low spot between holes on the Brasada golf course. It creates a dramatic entrance to the resort, as the entry road passes under it. A few deteriorating concrete and wood remains of the historic structures are all that is left on the site.

² *Crook County Journal*, Prineville, OR, July 14, 1910, 1.



The intake structure with a trash rack to keep debris out of the steel pipe that crosses the Dry River bed. The wastewater spillway gate is on left. Photo shows 2017 major alterations to the canal bed and side slope.³

The area at Brasada Ranch that was found to be eligible for listing also included a 600' length of functioning, open, historic canal south of the intake structure, on the west bank of the Dry River. However, COID in 2017 bulldozed the canal bed and eastern embankment, deepening it and removing the riprap and other historic features.

The non-contributing headgate and headwall to the 'J' Lateral, that formerly served the Shumway Ranch and now serves the Brasada Ranch Resort, remains in its historic location in this stretch, but was significantly upgraded and altered in 1978 and is non-contributing. One would have to see historic photos of the Powell Butte Siphon and learn about it to imagine it crossing the Dry River. The remains of the other structures and the stretch of open canal are secluded and inaccessible to the public.

In contrast to the historic site at Brasada Ranch, the nominated stretch of the Central Oregon Canal between Ward Road and Gosney Road is an exemplary 3.4-mile-long living stretch of the historic canal with very few alterations and many intriguing components in an agricultural area.

A visit to the 80-acre public parks district property that is traversed by the canal in the nominated historic district between Ward Road and Gosney Road allows the public to see an unaltered stretch of the canal as it has functioned for the past 110 years. The canal there holds more than twice as much water as the Brasada Ranch segment and is much larger, up to 78 feet wide and 9 feet deep, than the 16'-22' wide by 4'-9' deep canal at Brasada Ranch. The historic district has 21 headgates, with many being historic contributing, that lead to three laterals and 14 ditches that serve rural patrons up to five miles away. All have hand-operated wheel assemblies.

The historic district displays the progression of settlement, from parcels of 80 acres to parcels of 1 acre, with $\frac{3}{4}$ of the district passing through rural farms with irrigated land that was sold by the canal developers. It also includes un-irrigated and unfarmable scrub lands that did not have water rights and were not included in Segregation List 6. It retains much of the rural setting that was present during the homestead period. In contrast, the Brasada Ranch segment was formerly in the Shumway Ranch, but is now in a residential golf course community and resort.

³ Photo by Patricia Kliewer, taken on December 10, 2017.

The Shumway Pond is now rebuilt and is smaller and surrounded by homes. The historic district has over a dozen irrigation ponds adjacent to it and many irrigated pastures for livestock, displaying the agricultural use of the water. It has a functioning historic bridge used by the settlers (Bear Creek Ranch Bridge), and a concrete flume, Burt Chute, that bridged a lava tube cavern. The historic canal itself with its tall berms and extensive rock left in the bed, dozens of drill holes, remnants of the historic wooden flume, and two settlers' barns can be seen. The historic district displays how the construction crews and staff met challenges and the techniques they used between 1905 and 1914 to locate and build the canal. One can see and feel the full power of the mighty canal that changed the appearance and history of the high desert, east of the Deschutes River and south of the Crooked River, and that brought thousands of settlers from all over the world to the previously unknown region.

Hopefully, this letter contains information that is already well known by the Oregon SHPO and the SACHP and it will help you write an informed letter to them. I am glad to help if you want to call me.

Sincerely,

Pat Kliewer

From: [JOHNSON Ian * OPRD](#)
To: [ALLEN Jason * OPRD](#); [OLGUIN Robert * OPRD](#); [ZELLER Tracy * OPRD](#)
Subject: FW: Written testimony for the HLC
Date: Tuesday, April 24, 2018 9:53:40 AM
Attachments: [April 23, 2018 testimony to the HLC Kliewer.docx](#)
[8th Grade Geography and Irrigation Test.pdf](#)
[image001.png](#)

More testimony for COC to go to SACHP with 30-day mailing.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Pat Kliewer [mailto:pkliewer@hotmail.com]
Sent: Monday, April 23, 2018 3:12 PM
To: Zechariah Heck; Don Kliewer; Aleta Warren; Steven.Liday@MillerNash.com; ALLEN Jason * OPRD; Ian Johnson; stix.n.tones@gmail.com; Gary Grund; Suzanne Grund; Noah Walden; Jenna
Subject: Written testimony for the HLC

Zech, Please forward these two attachments, a letter and a fun test, to the full Historic Landmarks Commission before 5 pm today. I hope they find them helpful.

Thank you.

Pat Kliewer
60465 Sunridge Drive
Bend, OR 97702
pkliewer@hotmail.com
Phone 541 617-0805

Patricia Kliewer
60465 Sunridge Drive
Bend, OR 97702
541 617-0805'

April 23, 2018

Deschutes County Historic Landmarks Commission
PO Box 6005, Bend, OR 97708
c/o Zechariah Heck, Associate Planner
Zechariah.Heck@deschutes.org

Re: Nomination to the National Register of Historic Places, the Central Oregon Canal (Ward Road-Gosney Road Segment)

Dear Landmarks Commissioners,

Thank you for allowing me to testify last Monday at your hearing on the December 12, 2017 nomination of the segment of the Central Oregon Canal, between Ward Road and Gosney Road.

I was pleased that you called Ian Johnson and Jason Allen to ensure correct information was before you on your role and on the current version of the nomination, submitted in mid-December of last year. I was glad that Jason Allen told you that the nomination is a good one.

Information is power. I see you as colleagues and leaders in the historic preservation community in Central Oregon. I respect you and would never give you incorrect information, to the best of my ability.

Those who speak off the top of their heads with whatever sounds good, make up things and do not know what they are talking about, do not respect you.

When you carefully walk or ride along the segment of the canal with your nomination in hand, you can go through Section 7 and use it to guide you to notice the main canal and the structures in it and beside it. Do not just wonder what the facts are or who is telling the truth. See it with your own eyes and consider the sources of information and self-serving disrespectful and confusing but memorable sound bites some people are giving you.

MY REQUEST TO YOU

With careful study and after seeing the actual nominated segment, I ask you to do one of two responsible things:

1. Take a position of NO COMMENT. Other careful landmarks commissions in the state do take that option Ian Johnson told you about, when they have A. no first-hand knowledge of a resource, B. feel as if they are in a hot-potato political conversation that is not exclusively on historic preservation, C. they have confusing, conflicting information about a resource they cannot easily and clearly resolve by their own study and site visits, or D. the landmarks commissioners have a variety of opinions based on facts related to historic preservation. OR
2. Take a position of recommending the nomination be forwarded to the National Park Service, after review by SHPO staff and the Oregon SACHP.

There is no doubt of the historical significance of the segment of the Central Oregon Canal. Section 8 of the nomination provides a detailed history of the canal and its part in the founding and settlement of Bend, Centrallo, Redmond, Alfalfa and Powell Butte.

WHO OWNS IT ANYWAY?

County staff Nick Lelack corrected himself after protest from the property owners in the audience, but his gaff was a disappointment, since he has been working with the correct knowledge since 2013.

I trust that you are clear that COID owns one 13-acre parcel of land crossed by the nominated segment of the Central Oregon Canal historic district. The other tax lots are NOT owned by COID.

Also, COID owns only the portion of the Central Oregon Canal in the proposed district that flows across its own parcel. Here is a list of owners of tax lots crossed by the canal in the proposed historic district:

| TAX LOT NUMBERS, and Acres in tax lot. | NAMES OF CURRENT PROPERTY OWNERS PER DESCHUTES COUNTY ASSESSOR | SITUS PROPERTY ADDRESSES (This is the property address; It may not be the owners' mailing addresses) |
|--|--|---|
| 181201A000100 3.55 acres | Allan S. Boss | 21975 Bear Creek Road, Bend, OR 97701 |
| 181201A000200 51.09 acres | Suzanne and Gary Grund | 21925 Bear Creek Road, Bend, OR 97701 |
| 181201A000301 12.68 | Jennifer J. McDonald | 21825 Bear Creek Road, Bend, OR 97701 |
| 181201A000400 | Judith Suzanne Hanson Living Trust | 21885 Bear Creek Road, Bend, OR 97701 |

| | | |
|-----------------------------|---------------------------------------|---------------------------------------|
| 2.80 acres | | |
| 181201A000600 9.64 acres | Christine and Christopher Drape et al | 21805 Bear Creek Road, Bend, OR 97701 |
| 181201A000800 2.93 acres | Jennifer Egusa and Noah Walden | 61885 Somerset Drive, Bend, OR 97702 |
| 181201A000900 2.89 acres | Somerset Northwest LLC | 61877 Somerset Drive, Bend, OR 97702 |
| 181201A001000 2.62 acres | Patricia M. Fernald | 61867 Somerset Drive, Bend, OR 97702 |
| 181201A001100 2.87 acres | Robert Cole Revocable Trust et al | 61865 Somerset Drive, Bend, OR 97702 |
| 181201A001200 2.40 acres | Cascade LLC | 61855 Somerset Drive, Bend, OR 97702 |
| 181201A001300 | Kim D. and Misti D. Houston | 61849 Somerset Dr., OR 97702 |
| 181201B000900 | Jessica L. and Scott J. Jacob | 61880 Walter Court, Bene OR 97702 |
| 181201B001000 | Cherri L. and Nicholas J. Fagan | 61860 Walter Court, Bend OR 97702 |
| 181201B001200 1.84 acres | Harriett H. and Walter C. Schloer Jr. | 61835 Walter Court, Bend, OR 97702 |
| 181201B001300 3.02 acres | Jay C. Davenport | 61862 Dobbin Road., Bend, OR 97702 |
| 181201B001400 2.83 acres | Bergsetter Living Trust | 61858 Dobbin Road, Bend, OR 97702 |
| 181201B001600 1.60 acres | Alan G. Wedel | 61852 Dobbin Road, Bend, OR 97702 |
| 181201B001700 2.28 acres | Helen L. Hill | 61806 Ward Road, Bend, OR 97702 |
| 181201C000100 3.20 acres | Boese Glenly's Trust | No Situs Address |
| 181201C000200 | Debra and Thomas Edward Conners | 61794 Ward Road, Bend, OR 97702 |

| | | |
|------------------------------|--|--|
| 1.80 acres | | |
| 181201C000300 1.69 acres | Eliescha P. and Jeffrey M. Stone | 61784 Ward Road, Bend, OR 97702 |
| 181201C000400 6.96 acres | Ann Marie McCance | 61750 Ward Road, Bend, OR 97702 |
| 181201C001500 1.53 acres | Dina and Angelo Licitra Revocable Family Trust | 61781 Arrow Avenue, Bend, OR 97702 |
| 181201C001600 1.13 acres | Elizabeth K. Towill | 61780 Arrow Avenue, Bend, OR 97702 |
| 181201C002300 1.15 acres | Margaret and Rudy H. Molzan | 61775 Tomahawk Street, Bend, OR 97702 |
| 181201C002400 1.53 acres | Pamela and James Ristoff Trust | 617754 Tomahawk Street, Bend, OR 97702 |
| 181201C003300 1.31 acres | Leslie Linn Robbins et al | 61801 Wickiup Road, Bend, OR 97702 |
| 181201C003400 1.34 acres | Goss & Collins Living Trust | 61803 Wickiup Road, Bend, OR 97702 |
| 181201C003500 | Martha Marie and Paul G. Murphy | 61806 Wickiup Road, Bend 97702 |
| 1813050000702 19.55 acres | Mary C. and Kevin Gamble | 61635 Gosney Road, Bend, OR 97702 |
| 1813050001103 19.72 acres | Kevin M. Baney Testamentary Trust | 61670 Teal Road, Bend, OR 97702 |
| 1813050001200 13.14 acres | Central Oregon Irrigation District | No situs address |
| 1813060000700 | Julie Rose Van Epps Trust Et Al | 22075 Bear Creek Road, Bend OR 97701 |
| 1813060000800 16.07 acres | Loretta Ann Hadley Living Trust | 22015 Bear Creek Road, Bend, OR 97701 |
| 1813060000900 3.51 acres | Brenda S. and Ryan L. Trowbridge | 22185 Bear Creek Road, Bend, OR 97701 |

| | | |
|------------------------------|---|---|
| 1813060000901 1.47 acres | Allan D. Boss | No situs address; Mailing: 21975 Bear Creek Road, Bend, OR 97701 |
| 1813060001000 25.66 acres | Conrad Walters | 61795 Teal Road, Bend, OR 97701 |
| 1813060001001 38.96 acres | Dina and Angleo Licitra Revocable Family Trust et al | 61955 Somerset Drive, Bend, OR 97702 |
| 1813060001002 32.31 acres | Roberta and Tony Licitra | 61975 Somerset Drive, Bend, OR 97702 |
| 1813060001003 20.00 acres | Toni Marie and Russell Scott | 61995 Somerset Drive, Bend, OR 97702 |
| 1813060001200 15.41 acres | Janice M. Turner (David) | 22195 Bear Creek Road, Bend, OR 97701 |
| 1813060001700 79.60 acres | Bend Metro Park & Recreation District | No situs address |
| 1813060001300 40.00 acres | Julie Reber and Jason Gillam | 22225 Bear Creek Road, Bend, OR 97701 |
| 1813080000300 7.54 acres | Cynthia I. and Rodney C Gibson | 61595 Gosney Road, Bend, OR 97702 |
| 1813080000400 11.30 acres | Diane and Robert Stephen | 61575 Gosney Road, Bend, OR 97702 |

Prior to the hearing last week, I sent you the spreadsheet provided to the County and to me of the legal owners of record by the Oregon SHPO, but it was not read by County staff at your meeting and I do not know if you got it.

SOME REBUTTAL OF COID’s ORAL TESTIMONY

At your hearing, COID’s attorney made the ludicrous and politically-based statement that the segment was never farmed, has no integrity and has no historical value. He went on to show us all that he has no clue what poured-in-place concrete and shotcrete are. One of you astutely caught that lack of understanding and asked him kindly about it. Well, Mr. Singer, I have to pull rank on you. My husband, a registered civil engineer for 45 years, and a former president of the Consulting Engineers of Oregon, helped greatly on this nomination and personally walked along the nominated stretch several times, and was in charge of the team who helped him perform a

systematic survey of it. He prepared Figure 21. He was an editor of the nomination. He offers the following information to Matt Singer:



This is a photo of Shotcrete or what he calls “air blown mortar”, stabilizing the banks on COID’s North Canal. Shotcrete is a relatively modern product.



This is a photo of historic poured-in-place concrete that was formed by lumber at Burt Chute. Concrete is an ancient product.

COID’s attorney made another off-base, ignorant statement that said that the segment nominated to the NRHPs does not need to be listed on the NRHP for it to have protections from major alterations and demolition, because it will be protected by the Section 106 process. That process is federal. I encourage you to visit the Oregon SHPO and the National Park Service web site and search Section 106. I am sure the Oregon SHPO staff would correct you right

away if you said it is for the on-going protection of historic resources. COID continually sees no value in Goal 1 in Oregon Land Use- Citizen Involvement. The purpose and process of the Section 106 is to have a process for SHPO staff and the National Park Service to review projects that are funded partially or entirely by federal funds or that need federal permits.

Here is the unedited information summary on the Oregon SHPO website.

Federal Law

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires every federal agency to "take into account" how its projects and expenditures will affect historic properties, which includes prehistoric and historic sites.

Links to the complete text of the National Historic Preservation Act of 1966 and the federal regulations for the administration of the Section 106 process are below. Both documents are provided by the Advisory Council on Historic Preservation, the federal advisory board responsible for the national administration of the 106 process.

[National Historic Preservation Act of 1966](#) - Federal law that created the National Register of Historic Places, Advisory Council on Historic Preservation, and the 106 review process.

[36 CFR Part 800](#) - Chapter of the "Code of Federal Regulations" that specifies what agencies and SHPOs are obligated to do under Section 106.

Section 106 Process Overview

The review process involves six steps:

Step One: The agency determines whether its proposed action is an undertaking. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval.

Step Two: The agency determines the Area of Potential Effect (APE) and decides on an appropriate survey methodology in consultation with the Oregon SHPO. The appropriate APE will vary from project to project and may include physical, visual, and auditory effects. Contact the SHPO before work begins to avoid unnecessary documentation or delay in completing the Section 106 process.

Agencies are required to contact and consult with the appropriate Native American Nation when an undertaking takes place on tribal lands or when an undertaking will affect Native American cultural sites. A list of contacts can be found on our website: [Native American Nation Contacts](#). Consultation with other interested parties such as Certified Local Governments is also encouraged.

Step Three: The agency determines if the resources within the APE are already listed in the National Register of Historic Places or may be eligible for listing. Eligible historic properties are those that are at least 50 years of age and maintain the majority of their historic features, called historic integrity. If a building meets these minimum qualifications it is considered eligible for the Register unless the agency can prove otherwise through further historical or archaeological studies. The eligibility of archaeological resources is based on careful recordation and evaluation according to professional standards. These guidelines are available here: [Guidelines for Conducting Field Archaeology in Oregon](#).

Step Four: The agency decides what the effect of the undertaking will be. A project is said to have "No Effect" if there are no eligible properties in the APE, or a historic property is not affected in anyway. An undertaking may have "No Adverse Effect" if the project does impact the historic property, but the effect is minimal. If the proposed work will diminish the features that qualify a resource for listing the project is said to have an "Adverse Effect."

Step Five: The agency or government consults with the State Historic Preservation Office (SHPO) on its

determinations by submitting proper documentation for the impacted properties.

Step Six: SHPO either concurs with the agency's determinations or does not concur.

If SHPO Concurs:

No Historic Property, No Effect, or No Adverse Effect: You are finished with the Section 106 Review consultation process.

- Adverse Effect: The agency enters into a "Memorandum of Agreement" (MOA) to mitigate the adverse effect or submits a research design to mitigate adverse effects through proper recovery. The MOA is signed by the agency and SHPO. The federal agency submits the MOA to the Advisory Council, along with a description of the project and the alternatives that were considered to mitigate the "adverse effect." The Advisory Council has 30 days to review the project and decide if it is willing to sign the MOA. Once the MOA is signed, the documentation should be completed and accepted by designated repositories before the project begins.

If SHPO Does Not Concur: Federal agencies may appeal to the Keeper of the National Register of Historic Places or the Advisory Council on Historic Preservation.

I only this morning received from Deschutes County the COID April 13 letter to you and the April 12, 2018 JRP report. I cannot in a few hours rebut it line by line, but I did note that JRP never visited the site. Even the first paragraph is erroneous and does not get the nomination timeline correct.

The JRP review is inadequate and did not include the civil engineering, hydrology or local canal history expertise as our team does. It resulted in beginner amateur mistakes such as Burt Chute being non-historic and made of shotcrete and the Bear Creek Ranch Bridge not being historic.

JRP had no way to have local history expertise as was used in the nomination. It also did not consult all of the historic maps, testimony and maps of water rights hearings prior to 1955, museum files, state archive files, UC Berkeley files, National Archive files, and historic photos that I did. Yes, I traveled to Salem to use the archives and to Washington DC to use its land entry case files and canal and Carey Act records.

Nor do the JRP historians have the information and personal photos and diaries that people such as Charles Redfield's descendants (two of whom are themselves civil engineers), original settler Dragan Mirch's two granddaughters (one who today owns land in the district and lives on it, and the other granddaughter lives in Corvallis) and members of the Torkelson and Bradetich families and other long-time residents told me. (See list of interviews in the Bibliography.) The report as far as I have reviewed it is entirely false.

Farmer Gary Grund has owned his ranch since the 1970s and told you, with some exasperation and shock at COID's unfounded assertions, that the report is ridiculous. He has collected photos of his one-lane bridge that is carefully described in the nomination, including how many boards have been replaced.

Quickly, some other obvious misstatements that Matt Singer said at the hearings are:

Rip-Rap vs. Stacked Rock

Here is a copy of a ca 1907 postcard of the newly-completed Pilot Butte (PB) Canal, in the Deschutes Historical Society collection. It shows the undisturbed rip-rap on the outside edge of the turn. This was very similar to the riprap on gentle slopes that was being laid by the same crews on the Central Oregon Canal in the nominated segment. However, the rip-rap rock in the proposed historic district was larger in size and the embankments are taller than the PB Canal in this photo. There was NO STACKED ROCK! Also, note that there is no rip-rap at all on the inside and straight edges in this location of the Pilot Butte Canal.



In the nominated segment there is rip rap in some locations as shown in the photos and described in the narrative of the nomination. Most small rock has been moved by the force of 530 cfs of water downstream over 110 years, and that is to be expected. Larger rocks remain in place while small rock moved. f

Why would Matt Singer say at the hearing that all the historic rip-rap was stacked rock? Who knows? Perhaps he does not know what stacked rock is or that it would have only been applicable on vertical cuts, such as on the 1912 North Canal, as seen on JELD-WEN property.

However, there are a few feet of stacked rock in the vertical cut in the nominated district, that are attributed to Dragan Mirich, who added them as a property owner when erosion became a problem in those locations. He was a stonecutter and mason. My team has walked or driven by all accessible portions of the Central Oregon Canal and the Pilot Butte Canal, and Mirich's stacked rock in the proposed district is the only stacked rock. Here is a photo of it. It is photo #19 of 20 in the nomination.



MPD

Last October the Deschutes County Board of County Commissioners wrote some of the reasons they were opposing the National Register nomination that is being promoted by 44 of the 45 owners of the Central Oregon Canal between Ward Road and Gosney Road. County staff continues to repeat erroneous information that was the basis of the comments, so I am taking my time to help with the facts. As long as the BOCC's opinions are based on facts, I accept them, even if they differ from my own conclusions. But, when they are based on profit-oriented sound bites and purposely-planted misunderstandings, the opinions and policies are not in anyone's best interest and will not stand the test of time.

The second reason the BOCC gives in its October 17, 2017 letter to Jason Allen is an interesting misunderstanding of the MPD called "Federal Irrigation Projects in Oregon 1901-1978". It says,

"Previously COID hired experts to conduct a historic study of the district's entire irrigation system including the subject segment, as part of a Multiple Property Document) MPD) process. Based on the MPD, COID nominated two canal segments for listing on the National Register of Historic Places but did not nominate this segment of the canal."

A version of this statement was repeated last Monday at your hearing. The statement assumes you do not now much about the topic. I hope you do.

RESPONSE to MPD

Based on the February 2014 Memorandum of Agreement on the "I" Lateral piping project at Zell pond and near Reynolds Pond in Alfalfa that was signed by the Oregon SHPO, COID, and the Bureau of Reclamation, COID hired a Seattle consultant ICF International to prepare a National

Register of Historic Places Multiple Property Documentation Form, MPD, of its system including the three canals: the Central Oregon Canal, the Pilot Butte Canal and the North Canal.

This was because the Oregon SHPO staff had been processing numerous Section 106 project evaluation forms for piping projects by several irrigation districts in Central Oregon including the Swalley ID, the Three Sisters ID, the Tumalo ID, North Unit ID, and the COID. As the Oregon SHPO was signing off on the projects with a finding of adverse effect, as the historic open main canals were piped, nothing was being identified for preservation for the future.

SHPO staff Ian Johnson and Jason Allen determined from the information in all of the Section 106 forms primarily filled out by archaeologists, that COID had the largest canals built by the Central Oregon Project, the most successful private enterprise under the Carey Act in the Northwest. Also, it is well known that some of the other districts such as Tumalo ID, Swalley ID and the Three Sisters ID had already piped the most significant portions of their canals. All of this was done with notice to the irrigation districts, but no public involvement and no notice to private property owners of the canals. I learned this while I was touring the nominated segment of the Pilot Butte Canal with Oregon SHPO staff Jason Allen and Ian Johnson.

The MOA was intended to ensure at least one representative, significant, historic, open, and functioning stretch of the 22-mile long 1904 Pilot Butte Canal and another of the 47-mile long 1905-1912 Central Oregon Canal would be identified and nominated for listing and thereby, preservation, so the public and future generations could see a historic working open canal, as constructed in the historic period. In return for that commitment by COID to preservation, the Oregon SHPO agreed to sign off on all future Section 106 forms for piping the remainder of the two canals.

But, things changed from the original motivation and the original signed MOA. The first change was that literally, the month before the MOA was signed, 100% of the 45 sets of property owners of the Pilot Butte Canal between Yeoman Road and Cooley Road hired Michael Hall and Pat Kliewer to apply to Deschutes County and the City of Bend to add their historically significant 1 mile stretch of the canal to the Comprehensive Plans as a locally designated historic resource. COID was not a property owner in that stretch.

Those two local applications, to the BOCC and to the City Council of Bend, were submitted in April 2014 with signatures, addresses and tax lot numbers of every property owner and over a hundred others who supported them. But, within hours, staff at the two CDDs claimed that all of the legal property owners of record were not the legal property owners of record, and they returned the applications and application fees to me unprocessed. Rather than waste money on fighting what was perceived as a long-held bias against the thousands of private property owners of the canals at city hall, the owners decided to have us do more research, add to the local applications, and to submit a nomination to the National Register of Historic Places where they expected to be treated fairly as the legitimate property owners.

Therefore, both COID's consultant and Michael Hall and I and a committee of five consisting of a civil engineer, architect, hydrogeologist, an investigative journalist and property owners were surveying the system at the same time.

We were methodically walking in and along the North Canal and Pilot Butte Canal, driving along them, and surveying the entire Pilot Butte Canal and the North Canal and the nominated segment of the PB canal in 180-foot increments and preparing the nomination. This was being

done at the same time as COID's Seattle consultant was surveying portions of the three canals from Google Earth and by COID truck, unbeknownst to each other.

None of the parties to the MOA has ever notified the owners of the COID canals of any piping projects, the Section 106s or the MOA, and have not to this day. Only if one looked at the COID website, or attended COID board meetings, would one know what was planned. For the owners of the canal without water rights, that would not occur to them. It was determined that the COID staff and grant writers are erroneously signing as the owners of the canal on applications and Section 106 forms, and therefore, no public or owner notification is taking place prior to the signing of agreements and approvals.

In October 2014, I submitted a nomination to the Oregon SHPO for a segment of the Pilot Butte Canal. The segment has the most integrity and it carries the full 450 cfs of water. The nomination was heard by the Oregon SACHP in February 2015. After legal challenges regarding ownership of the canal by Stoel Rives LLC Law firm, the National Park Service determine that the private parties that had been previously identified by the Deschutes County Assessor and notified by the Oregon SHPO for the SACHP hearing were indeed the owners of the canal and it was listed on the National Register of Historic Places.

After the SACHP heard our nomination and voted to forward it to the National Park Service, ICF International prepared a nomination for the Vale Irrigation District of a piped site that no longer held water. ICF also prepared the MPD for COID and two nominations under that MPD, one of each of their large canals.

Unfortunately, when the SACHP heard the nominations, it decided that the MPD should apply to all irrigation districts in Oregon with a federal connection and that all of the ICF nominations needed major revisions. The Nomination for the Brasada Ranch segment was raising many concerns. In exchange for the request to preserve a significant segment of the open historic Central Oregon Canal, COID identified and nominated the site of the historic Powell Butte Siphon at Brasada ranch that was removed and replaced in the 1970s and does not meet the original intent of the MOA.

However, ICF revised all of the nominations and they were reheard by the SACHP. At the February 2017 SACHP hearings, the Bureau of Reclamation Regional Office in Idaho, the Umatilla Irrigation District and others opposed the nominations as being full of errors of fact, too broad, and of little value. The SACHP at the urging of staff who said it was taking too many years to get it right, reluctantly voted to forward them to the NPS after staff and the preparer paid attention to the B of R concerns and made other revisions. It became apparent that required notification of all of the owners of record of real properties in the Brasada Ranch segment was not done and the Brasada Ranch owners formerly objected to the listing. It was not listed on the NRHP. The Vale nomination was not successful. Last summer, the Downtown Redmond segment of the Pilot Butte Canal was listed.

The MPD nomination was heard by the Oregon SACHP several times and was tabled for revisions, but in 2017 it was forwarded to the National Park Service. It has been used for three nominations so far: the nomination of the Vale Project: Lateral 278 Segment Historic District near Vale, Malheur County; the Central Oregon Canal: Brasada Ranch Historic District; and the Pilot Butte Canal: Downtown Redmond Segment Historic District. Of the three nominations, only the Pilot Butte Canal: Downtown Redmond Segment Historic District has been listed.

The MPD was listed **after** the nomination before you was written and submitted. The MPD has little information on any canals in particular and is general in nature.

Due to the National Register of Historic Places Multiple Property Documentation Form, MPD, segments of canals or entire canals that were developed under the Carey Desert Land Act in Oregon between 1901-1950 or by Federal Reclamation Projects in Oregon between 1902 and 1978 can be more easily nominated to the National Register of Historic Places. The MPD facilitates nominations of entire canals or segments of them throughout the state, including COID's canals and Vale's, Klamath Falls, and Umatilla's canals, without having preparers or owners do the intense, time consuming and expensive research that was done by myself and Michael Hall for the nomination of the listed Pilot Butte Canal Historic District (Yeoman Road-Cooley Road Segment) in 2014-2015 or the nomination before you. Our research would have taken a few more years if Michael Hall had not researched and written in 1993 and 1994 the 133-page *Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957. A Historic Context Statement*, paid for by a CLG grant. Even beginning with that base of research and knowledge, we each had over 1,000 hours in 7-day weeks of research to write our PB canal nomination.

The BOCC seems to think that the MPD was exclusive to the two nominations of segments of the canals that COID nominated in Deschutes County. It is not. The MPD applies to every irrigation district statewide that meets the two criteria.

The BOCC also was not correctly informed about a 2014 survey of the COID system. It was performed as a first step in nominating a stretch of each canal to meet a MOA between the Oregon SHPO, COID and the Bureau of Reclamation for piping a portion of the 'I' Lateral in Alfalfa, near Reynolds and Zell Ponds. The survey was done by COID staff, Black Rock Consulting, the engineering consultant on the proposed hydropower plants and associated piping on the system (Kevin Crew PE), and a Seattle based ICF International Consultant, Chris Hetzel.

The survey was done during the irrigation season in 2014, when the canals were full of water, so the consultant could not see or photograph the canals below water level. The survey was done of portions of the main canals by staff and Mr. Hetzel in a COID truck, only where vehicle access on ditch rider roads was possible and by aerial photography of the majority of the system. Many structures were mapped on the system, but not all. Most laterals and delivery ditches maintained by individual property owners were not surveyed in the time allowed. Some stretches of the main canals where ditch rider roads were and were not available were also skipped and not viewed, such as along the segment of the Pilot Butte Canal that we nominated.

BUT, COID's current and future hydropower and piping plans and property ownership were key considerations in selecting the two segments to nominate to the National Register. Previously piped segments or sites with little or no integrity such as at Brasada Ranch and segments that conveyed little water were not eliminated from consideration.

Out of that survey, mapping and consultation, two stretches were identified that met COID's criteria, not the SHPO's criteria. The narrow, flat, straight Redmond Segment of the Pilot Butte Canal was partially owned by COID and was not planned for piping. Sections of piped canal were near each end of the segment next to Home Depot in Redmond. In the segment of the canal in Brasada Ranch, COID had replaced the aging historic structures at the Powell Butte

Siphon in 1978, so it is a historic site, while the short open part of the canal above the Brasada Ranch Equestrian Center was bulldozed and significantly altered in 2017.

COID did not seriously consider nominating stretches that were historically difficult to construct, that carried significant amounts of water, retained their historic setting, or that were planned for piping and hydropower in its long-range master plan, called its System Improvement Plan.

The nominations were criticized at the SACHP, by the public and by SACHP members as not holding a large amount of water, of being severely altered and not being representative of the historic materials and workmanship or settings. They are not the best segments of the canals and did not show the labor or challenges of the historic construction techniques, said opponents orally and in letters at the SACHP meetings.

As the process dragged on for three years, the SHPO staff allowed the nominations to go forward, partially because a significant segment of the Pilot Butte Canal was already listed- the nomination that Michael and I wrote. The segments COID nominated did not have to be the best segments nor were they compared in any comprehensive way to the other segments in either the nominations or in the presentations.

The people of the County and the State of Oregon and private property owners would be robbed of the right to identify and nominate significant segments of the canals for listing on the National Register of Historic Places if only COID had that right. They don't.

In this case before you this month, COID owns one parcel in the proposed historic district on the Central Oregon Canal. COID erroneously claimed to own 4 parcels. After the debacle at Brasada Ranch, the Oregon SHPO was very careful in working with the Deschutes County Assessor to determine the parcels crossed by the 100-foot wide historic district and the owners of those parcels. COID is the only property owner that objected to listing the Central Oregon Canal (Ward Road-Gosney Road Segment) historic district, across their land. The remaining owners as identified by the Deschutes County Assessor are in favor of the nomination and have a right to nominate their own property to the National Register of Historic Places. It is the most significant stretch of the canal as described in the nomination.

MAINTENANCE AND REPAIRS

COID said of listing the historic district “a listing would substantially degrade the District’s ability to serve their needs if there was a break or leak in the canal that needed to be fixed.”

COID is spreading fear that it will not be able to maintain the canal in the historic district, if it is listed on the NRHP. That is baloney, as I said in a nicer way in my oral testimony. The protection of the historic district would be done right here, at the HLC and the Deschutes County Board of County Commission.

During the past two years, there have been no problems of the HLC preventing COID from maintaining and repairing the Pilot Butte Historic District, (Yeoman Road-Cooley Road Segment.) I expect the same for this segment of the Central Oregon Canal.

Unfortunately, COID's dramatic comment to engender sympathy, shows that COID has not read the County's historic preservation code. Has County planning staff advised it that the County's Historic Preservation Code allows for ordinary maintenance and repairs as COID and other irrigation districts have been doing for the last 100 years and for emergency repairs or necessary emergency alterations, without County HLC's review?

Section 106

One of COID's attorneys at the public hearing last week, Matt Singer, said preservation of the Central Oregon Canal can be done via the Section 106 process, without having a segment listed on the National Register (NRHP). This is BS. It is misinformation and another misleading and erroneous comment meant to throw you off base. I think you know it is false.

There is no segment of the Central Oregon Canal that is locally listed as a historic resource or listed on the NRHP. The Oregon Administrative Rules for implementing Goal 5, Historic Resources that was updated last year, and the Deschutes County Historic Preservation Code apply to preservation of only those segments of canals that are either listed on the Comprehensive Plan or listed on the National Register of Historic Places. The introduction to your Historic Landmarks Code tells its purpose and applicability. So, there is no protection of the proposed segment of canal to the NRHP until it is listed on the NRHP or the local Comprehensive Plan through BOCC decision. In Oregon, preservation is done at the local level with public involvement.

Section 106 forms are used exclusively to have the Oregon SHPO and the NPS review only proposed projects that are regulated by federal agencies or that are all or partially funded by federal money (federal undertakings). So, all activities of the COID that are not funded by the federal government nor regulated by the federal government do not require a Section 106 form to be completed and submitted at all.

Although the National Register listing does not provide much protection for a property other than through the relatively passive and academic Section 106 review process of proposed projects that involve federal funding or federal regulation, preservation in Oregon is done locally through the local elected officials and their appointed Landmarks Commissions, using a public hearing process and applying local historic preservation codes

The BOCC itself would be the final decision makers of any proposed alterations or demolition if the proposed historic district is listed on the NRHP.

The County's Historic Preservation Code states at 2,28,090.J:

“Nothing in DCC 2.28 shall be construed to prevent the ordinary maintenance or repair (e.g. painting) of exterior architectural features of a building or structure which does not involve a change in design or type of materials.”

2,28.090. K. states,

“A change in design or type of materials shall be allowed if the County building official states in writing that the repair is necessary for personal or public safety due to an unsafe or dangerous condition in or on the building or structure.”

Furthermore, Sterns Waste is owned by the COID. More information about how it is used in a emergency is in Section 7 of the Nomination on pages 25 and 26.

The preservation of the historic district would be done locally with the BOCC being the decision makers. Any decision of the HLC could be appealed to the BOCC. The final decision is by the BOCC, locally with an opportunity for public input.

SIGNIFICANCE AND INTEGRITY OF THE NOMINATED SEGMENT

The last thing I will mention in this letter was COID's charge that we should have nominated a segment of the canal in farming country in Alfalfa. Here is my response that meets the real criteria for significance and integrity.

The Central Oregon Canal Historic District has an exceptional degree of integrity and is a good example of a pioneer era canal in Central Oregon. Its location has not been altered over time, and it continues to display the distinctive characteristics of the historic period canal construction, an irregular, open, trapezoidal- shaped canal, made with local rock and soil by horse teams, hand tools and custom-designed steam drills. It represents the function and appearance of the water conveyance system, as it appeared during the historic period. The district is of sufficient length to portray the purpose, the construction challenges, materials, techniques, and methodology of construction. The headgates and pipes to 16 ditches, two laterals and one sub-lateral, and over a dozen irrigation ponds that serve irrigated and cultivated land next to the canal, illustrate how the canal functions to provide irrigation water to those with water rights. It also demonstrates the results of a lack of water on land with no water rights.

The structures at Stearns Waste are only 30 years old, but they replaced similar historic structures at the same location. Stearns Waste is an example of how the irrigation district staff deals with emergencies that can develop if water goes out of its banks downstream. Burt Chute and the remains of the historic wooden flume are reminders of the substantial challenges posed by lava tubes and sudden drops in elevation along a canal that flowed by gravity and could not go around obstacles. The wooden flumes were leaky and required constant maintenance. All of the historic wooden flumes that were on the main canal have been replaced with metal pipes or embankments. Burt Chute and the piers for the Bear Creek Ranch Bridge were formed by hand with concrete mixed and poured on site.

Workmen had to break up and remove massive amounts of rock, bridge caverns with wood and concrete flumes, and build huge embankments. The high degree of integrity of setting, location, design, materials, feeling, association, workmanship of the historic district differentiate it from the remainder of the Central Oregon Canal. The canal in the historic district is the only unaltered stretch of the entire canal that conveys the full volume of water (530 cfs) and displays evidence of all the practical solutions to the unique historic construction challenges in 1905, 1907 and 1914.

The canal in the district has a distinctive lack of uniformity, an undulating bed, irregular side slopes, heavily rip-rapped or stacked rock embankments, cuts, and rapids caused by large rocks left in the bed as it drops 50 feet in elevation. The challenging rock, use of native materials, and practical, problem-solving methodology, resulted in the stretch looking and sounding like a river flowing naturally. The berms on the edge of the hills on the downhill side are distinctive and show the difficult labor the teams and men went to in order to place the canal at the necessary elevation, so the system would flow for the entire length that was planned. It retains the feeling and association with the surveyors who determined its exacting route, so it

could flow entirely by gravity and serve all of the settlers and patrons. The canal varies greatly in width and depth, reflecting the engineers who calculated its necessary volume so that it would carry the water needed to irrigate future farms for the length of the canal, the superintendents and supervisors who adapted plans to meet conditions encountered in the field, specialists who blasted tons of rock with specialized mining equipment ordered the previous year to speed up work on the Pilot Butte Canal, and the hundreds of laborers with horse teams who dug, scraped, and moved thousands of loads of rock and soil, while trying to meet construction deadlines that were set in contracts between the canal developers and the State of Oregon.

The district has the widest variation of terrain and style and the tallest berms on the canal. The variations demonstrate that a narrow and deep canal with fast volume in a sloped area can carry as much water as a wide, shallow canal with a slower flow in flatter terrain. The tremendous variations in the district as seen in the survey data show that the nominated district displays all the designs and methodology found throughout the entire canal: irregular winding rocky portions with large built-up embankments on the downhill side; portions with vertical sides and others with sloping rip-rapped and stacked rock sides; smooth and sandy level portions; portions with two cuts and no embankments; portions with and without a ditch rider road atop the embankments; portions with short embankments used to discard the materials taken from the bed; portions that were blasted and portions that were scraped.

CONCLUSION

Please see the TEST I am submitting to you as attached to this email. I hope you have fun taking it and looking up the answers and that it motivates you to learn more. My husband has been designing headgates, canal structures, pipes and pumps for decades, since he worked on the California Aqueduct in 1968. Michael Hall has been studying the history of irrigation in Central Oregon for 24 years and writing excellent nominations, researching and writing local history. I completed two other nominations for historic districts and ten other nominations for individually-listed properties as the sole preparer or as part of a team. I have spent the last five years learning from Michael Hall and Don Kliewer, and building on that solid base. But, I find that the property owners and previous owners are also invaluable sources of information, and I hope you take their letters seriously.

You deserve better than what the COID general manager and attorney are telling you. Your time and brains are too valuable to be fed incorrect and misleading junk by parties involved in this. Why don't they tell you the truth and let you make an informed decision?

I will always check and recheck my facts as I learn new information that has never been written in books, every day. As anyone who has asked me a new question knows, if I don't confidently know the answer and can tell you how I came to know it, I will always tell you that I do not know the answer and if you like, I will try to find the correct answer to the question.

Please respect my work and respect the Oregon SHPO and Oregon SACHP's review process and vote to forward the nomination to the SACHP.

As the National Trust for Historic preservation says, "Historic places help define and distinguish our communities by building a strong sense of identity." I am sure you know the value of the National Register program in general to research and record local history, and why preservation is critical. Three Sisters Irrigation District has piped 50 of 60 miles of main canal

and saved water in the Wychus Creek. The Swalley district has saved the most water in the Deschutes River through its piping and other conservation efforts. All but one of the irrigation districts have initiated plans that pipe their main canals and many laterals. The USGS 2013 report states that the laterals have the greatest water losses from seepage into the ground, but piping them and the main canals may lower water tables.

There are many agencies looking at the various facets of the piping and hydropower issues, but your responsibility is one facet: historic designation and preservation. We are counting on you to focus on that. It is prudent and proper to honor the county's history and the contributions of those who came before us, by listing this stretch of the Central Oregon Canal on the National Register. Once it is gone, we cannot bring it back.

In appreciation of your volunteer efforts and all you do in the community to identify and preserve our County's history,

Sincerely,

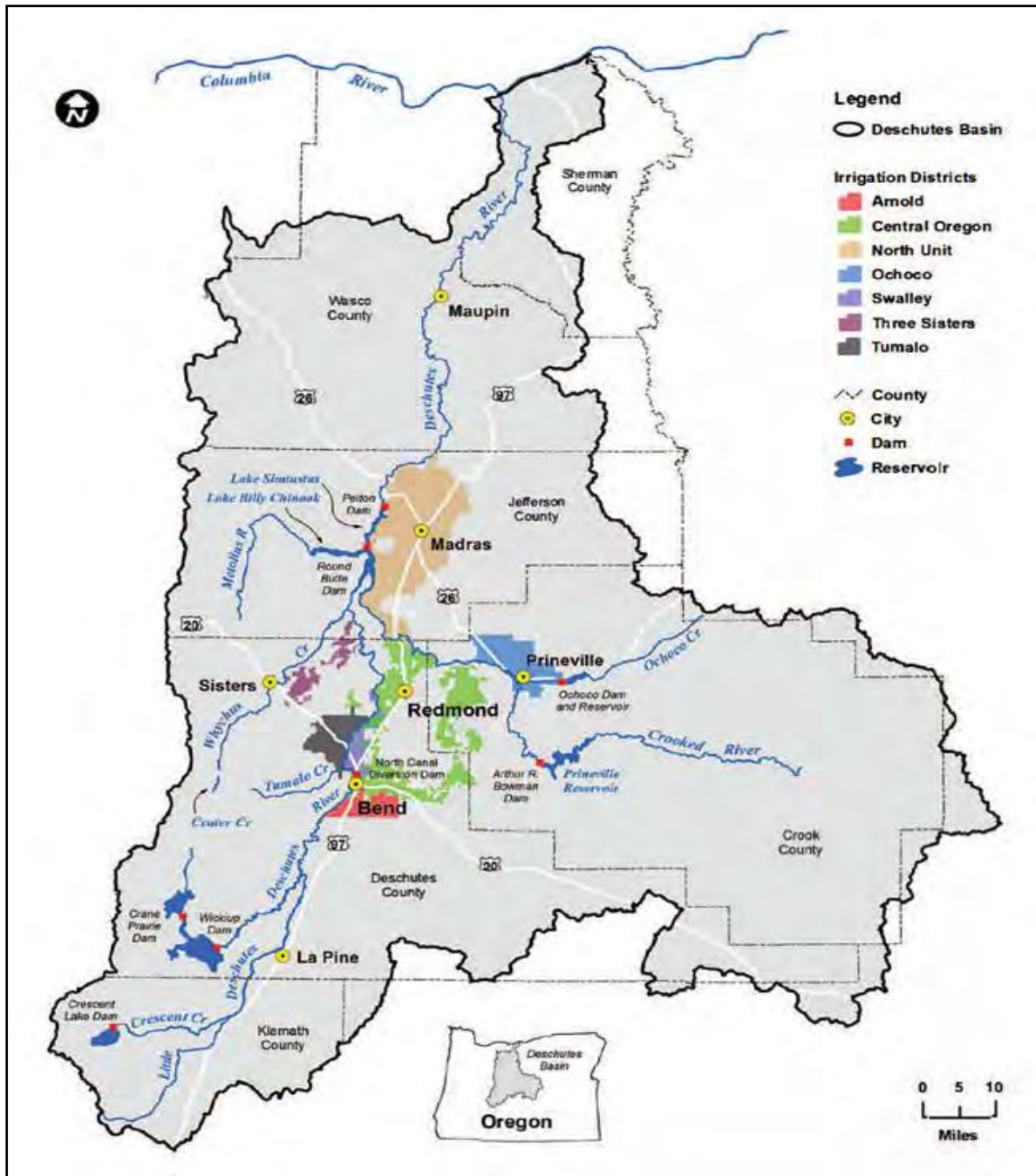
Pat Kliewer, MPA

27-QUESTION 8TH GRADE CENTRAL OREGON GEOGRAPHY TEST

HOW WELL DO YOU KNOW the IRRIGATION DISTRICTS and CANALS?

The answers are at the end.

Source of image: Deschutes Basin Board of Control Website, April 17, 2018.



1. Which reservoirs, rivers, and streams are the sources of irrigation water for canals in Deschutes County? Circle them.
 - A. Crane Prairie Reservoir
 - B. Crooked River
 - C. Deschutes River
 - D. Dry River
 - E. Little Deschutes River
 - F. Metolius River
 - G. Tumalo Creek
 - H. Whychus Creek
 - I. Wickiup Reservoir

2. According to the United States Geological Survey, how many canals are in the tri-county area of the Upper Deschutes Basin, that generally includes Deschutes, Jefferson, and Crook Counties?
 - A. 10
 - B. 17
 - C. 38

3. Locate the following major irrigation canals in Deschutes County on the preceding map of the irrigation districts. Hint: Some districts operate and maintain more than one canal. Write the letter in the general location of each canal.
 - A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Feed Canal

4. Which was the first canal to be constructed and which was the last to be constructed? Write "First" and "Last" beside them.
 - A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Feed Canal

5. Which of these main canals is the shortest, and which is the longest? Write "Shortest" and Longest" beside them.
- A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Canal
6. Which irrigation district constructed the canal or canals that it operates and maintains today?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
 - G. All of them.
 - H. None of them.
7. Which irrigation district serves the most water users or patrons?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
8. Which irrigation district irrigates the most acres?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
9. Which irrigation district has the most staff members?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit District
 - D. Swalley Irrigation District
 - E. Three Sisters District
 - F. Tumalo Irrigation District

10. Which irrigation district has not undertaken a piping project?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
11. Which district has returned the most water to the Deschutes River through its conservation and piping programs, by diverting less water from the river?
- A. Arnold Irrigation District
 - B. Central Oregon Irrigation District
 - C. North Unit Irrigation District
 - D. Swalley Irrigation District
 - E. Three Sisters Irrigation District
 - F. Tumalo Irrigation District
12. How would you characterize the irrigation districts?
- A. For-profit water and power companies.
 - B. For-profit water utilities.
 - C. Not-for-profit, publicly-owned water and power utilities.
 - D. Quasi-municipal corporations, that are run by a board of directors that is elected by the patrons with water rights. They must have meetings and records open to the public. They are supported primarily by assessments of their patrons for irrigation water and income from selling electricity generated by hydropower.
13. Where does the revenue produced by the hydropower plants on the canals go?
- A. To the State of Oregon to reduce income taxes.
 - B. To Deschutes County to reduce property taxes.
 - C. To the Federal Government to support clean energy projects.
 - D. To PGE and Pacific Power to reduce the cost of electricity.
 - E. To the Irrigation Districts to cover operating costs, pay staff salaries, pay for consultants, and reduce assessments for patrons for their water.
14. According to the Mission Statements of the Irrigation Districts, what is their primary responsibility?
- A. Deliver water to district patrons by managing and maintaining the system in the most efficient and cost-effective manner possible.
 - B. Reduce the amount of irrigation water diverted from the rivers and streams.
 - C. Increase income from hydropower to reduce the cost of irrigation water to those who hold water rights, and have the district become profitable.
15. Can patrons lose their water rights, and can new parties buy water rights today?
- A. Yes
 - B. No

16. Parties with water rights must use them for beneficial uses as defined by the State of Oregon a minimum of 1 year out of every 5 consecutive years. Which of the following uses are not beneficial uses or are not allowed?
- A. Domestic uses for drinking water, showers and laundry.
 - B. Irrigating landscaping and ponds at an urban trailer park.
 - C. Irrigating urban yards and lawns on 1/5 acre lots.
 - D. Irrigating lawns in a cemetery.
 - E. Irrigating playgrounds at schools.
 - F. Irrigating a pasture less than 1 acre in size on a hobby farm.
 - G. Irrigating farm crops such as hay or pumpkins.
 - H. Filling recreational and wildlife reservoirs such as the 6-acre Mayfield Pond, 12-acre Reynolds Pond, 7.7-acre Zell Pond, Houston Lake and Little Huston Lake.
 - I. Irrigating landscaping at Bend Airport.
 - J. Irrigating private and municipal golf courses.
 - K. Irrigating weeds and native plants.
 - L. Filling irrigation and stock ponds year around.
17. Which three canals does Central Oregon Irrigation District operate and maintain?
- A. Arnold Canal
 - B. Bend Feed Canal
 - C. Central Oregon Canal
 - D. North Canal
 - E. North Unit Canal
 - F. Pilot Butte Canal
 - G. Plainview Ditch
 - H. Swalley Canal
 - I. Three Sisters Irrigation District Main Canal
 - J. Tumalo Feed Canal
18. The Central Oregon Irrigation District owns the three canals and can allow the development of public trails along them.
- True
 - False
19. While the Central Oregon Irrigation District owns some parcels crossed by the canals that can be found using an owner search on the County Assessor's DIAL, nearly all of the parcels crossed by the canals are in private ownership and COID has an easement to operate and maintain a canal across those parcels for irrigation purposes.
- True
 - False
20. Is any of the 22-mile long 1904 Pilot Butte main canal designated as a historic resource and protected from major alterations and demolition?
- A. No.
 - B. Yes, 1 segments is protected.
 - C. Yes, 2 segments are protected.

21. Is any of the 47-mile long 1905-1912 Central Oregon Canal designated as a historic resource and protected from major alterations and demolition?
- A. No.
 - B. Yes. The site of the wood stave pipe that was replaced with a modern pipe by COID in 1978.
22. Central Oregon Irrigation District owns both the canal and the real property (land) in the 3,000 ft.-long segment of the Central Oregon Canal that it recently piped west of the Brookwood Bridge in Bend. That is why it could sign an agreement with Bend Park & Recreation District to allow a public trail in that segment of the canal.
- A. True
 - B. False
23. The North Canal, Pilot Butte Canal and Central Oregon Canal were built by:
- A. The federal government.
 - B. The State of Oregon.
 - C. Private, for profit, development companies owned by wealthy, well-connected, politically-savvy investors from the Midwest and east coast.
 - D. The settlers and property owners cooperatively.
24. When was the Central Oregon Irrigation District formed by a court decree to be a quasi-municipal corporation in the State of Oregon, to operate and maintain the canals and to take over the assets of the private Central Oregon Irrigation Company?
- A. 1905
 - B. 1911
 - C. 1921
 - D. 1948
25. According to records at the Oregon Dept of Water Resources, since 2009, piping 4.5 miles of the Pilot Butte Canal and adding a hydro plant at Juniper Ridge has resulted in how much of the 400 cubic feet per second of water being left in the Deschutes River?
- A. 10 cfs
 - B. 100 cfs
 - C. None. On average, 450 cubic feet per second are now diverted from the river during the peak irrigation season. Hydropower takes a consistent amount of water that cannot be reduced through conservation efforts downstream.
26. A unique feature of the proposed historic district between Ward Road and Gosney Road is that the canal crosses tax lot 1813060001700, a 79.6- acre parcel owned by the Bend Metro Park & Recreation District. The public will have access to see and experience the historic canal year around, with and without water flowing in it.
- A. True
 - B. False

27. Which of the following canals have segments that have been set aside for preservation for future residents and future generations?

- A. Arnold Canal
- B. Bend Feed Canal
- C. Central Oregon Canal
- D. North Canal
- E. North Unit Canal
- F. Pilot Butte Canal
- G. Plainview Ditch
- H. Swalley Canal
- I. Three Sisters Irrigation District Main Canal
- J. Tumalo Feed Canal

ANSWERS

1. All except for **D. Dry River** at Alfalfa and Powell Butte and **F. Metolius River**.
2. **C. 38**
3. The Plainview Ditch and the Three Sisters Irrigation District Main Canal are in the Three Sisters Irrigation District.
The Pilot Butte in Canal in COID flows from the Brinson Blvd. Bridge in Bend, through Deschutes Junction, through Redmond, and east toward Smith Rock.
The Central Oregon Canal in COID begins in southern Bend and flows east to Alfalfa and north to Powell Butte and then to the Crooked River.
The North Canal in COID begins at the Deschutes River near the Riverhouse Convention Center, flows through a commercial and industrial portion of Bend, and connects to the Pilot Butte Canal at the Brinson Blvd. Bridge.
The North Unit Canal begins near the Riverhouse Convention Center and extends east near the Bend Pine Nursery Park and turns north and crosses the Crooked River to Madras. All of its water is used in Jefferson County.
The Tumalo Feed Canal and the Bend Feed Canal are in the Tumalo Irrigation District.
4. First: **I.** Three Sisters Canal, 1891.
Last: **E.** North Unit Irrigation District. 1938-1949.
5. Shortest: **D.** The 1912 North Canal that is 1,613 feet long.
Longest: **E.** The North Unit Canal, completed in 1949 is about 65 miles long.
6. **H. None.** They all were constructed through cooperative organizations of settlers, for-profit private enterprises or by the Federal Government. The districts came later.
7. Arnold Irrigation District: 643 patrons
Central Oregon Irrigation District: 3,600 patrons
North Unit Irrigation District: 2,265 patrons
Swalley Irrigation District: 668 patrons
Three Sisters Irrigation District: 402 patrons
Tumalo Irrigation District: 667 patrons

8. Arnold Irrigation District: 4,384 acres
Central Oregon Irrigation District: approximately 44,500
North Unit Irrigation District: 59,000 acres
Swalley Irrigation District: 4,333 acres
Three Sisters Irrigation District: 7,572 acres
Tumalo Irrigation District: 7,400 acres
9. Arnold Irrigation District: 5 people
Central Oregon Irrigation District: **31 people**
North Unit Irrigation District: 26 people
Swalley Irrigation District: 4 people
Three Sisters Irrigation District: 6 people
Tumalo Irrigation District: 8 people
10. A. Arnold Irrigation District.
11. D. Swalley Irrigation District
12. D. Quasi-municipal corporations.
13. E. To the Irrigation Districts.
14. A.
15. A. Yes
16. A. and K. Irrigation water cannot be used for domestic needs or to water weeds or native plants.
17. C. Central Oregon Canal, D. North Canal, and F. Pilot Butte Canal.
18. False. The canals are owned by the underlying real property (land) owners. Easements for public trails on the “ditch rider roads” beside the canals must be given by the 3,600 real property owners of the land that the canals cross. COID’s easements to operate and maintain the canals do not extend below the existing surface of the canals. New easements with each property owner are necessary to excavate in the canal bed or allow public trails along the canal.
19. True. See above explanation.
20. C. Two segments of the Pilot Butte Canal are listed on the National Register of Historic Places and are protected by local historic preservation codes. One is in Redmond and one is between Yeoman Road and Cooley Road at the northeast edge of Bend.
21. A. No. A segment of the canal at Brasada Ranch was nominated, but was not listed on the National Register of Historic Places.

22. True.
23. C. The Pilot Butte Development Company under Alexander Drake began the Pilot Butte Canal project in 1900. It sold its assets and contracts to the Deschutes irrigation and Power Company in 1904. In 1910, the Central Oregon Irrigation Company bought the project and finished the Central Oregon Canal. It owned the company until 1921.
24. C. 1921.
25. C. The average diversion of water from the Deschutes River to the Pilot Butte Canal during the summer between 2009 to 2016 increased from 400 cfs to 450 cfs.
26. A. True.
27. F. The Pilot Butte Canal is the only canal with designated historic resources.

SOURCES and for FURTHER STUDY:

1. Deschutes Basin Board of Control Website: <http://dbbcirrigation.com/>
2. Arnold Irrigation District: <http://www.arnoldirrigationdistrict.com/>
3. Central Oregon Irrigation District: <http://coid.org/>
4. North Unit Irrigation District: <http://www.northunitid.com/>
5. Swalley Irrigation District: <https://www.swalley.com/>
6. Three Sisters Irrigation District: <http://tsidweb.org/>
7. Tumalo Irrigation District: <http://tumalo.org/>
8. Oregon Water Resources Dept.: <http://www.oregon.gov/owrd/Pages/sw/index.aspx>
9. Pilot Butte Canal Historic District in Downtown Redmond NRHP nomination: http://www.oregon.gov/oprd/HCD/NATREG/docs/Redmond%20Downtown%20Historic%20District/OR_DeschutesCo_RedmondDowntownHD_SACHP.pdf
10. Pilot Butte Canal Historic District (Yeoman Road-Cooley Road) NRHP nomination: http://www.oregon.gov/oprd/HCD/NATREG/docs/Central%20Oregon%20Canal%20Historic%20District/COCHD_SACHP%20Draft.pdf
11. USGS Ground-Water Hydrology of the Upper Deschutes Basin and Groundwater Studies. https://or.water.usgs.gov/projs_dir/deschutes_gw/pubs.html
https://or.water.usgs.gov/projs_dir/deschutes_gw/index.html
12. Resources link on the Deschutes River Conservancy website: <http://www.deschutesriver.org/resources/reports/>
13. Deschutes County Assessor's Office DIAL: <https://dial.deschutes.org/>
14. Michael Hall, *Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, a Historic Context Statement, 1994:* <https://digital.osl.state.or.us/islandora/object/osl:11567>
15. Nomination of the Ward Road to Gosney Road Segment of the Central Oregon Canal to the National Register of Historic Places (NRHP): http://www.oregon.gov/oprd/HCD/NATREG/docs/Central%20Oregon%20Canal%20Historic%20District/COCHD_SACHP%20Draft.pdf

ALLEN Jason * OPRD

From: ZELLER Tracy * OPRD
Sent: Monday, June 11, 2018 9:10 AM
To: ALLEN Jason * OPRD; CURRAN Chrissy * OPRD; David Harrelson; Deborah Schallert; Dow Beckham, Stephen; JOHNSON Ian * OPRD; Oberst, Mary; OLGUIN Robert * OPRD; Osborne, Julie; Trice Gwendolyn; Tveskov, Mark; ZELLER Tracy * OPRD
Subject: COC Canal Nomination Public Hearing

Please see below for an email sent to the SHPO from Pat Kliewer asking Deb to recuse herself from the COCHD discussion.

Tracy Zeller, Executive Assistant
National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: Pat Kliewer [<mailto:pkliewer@hotmail.com>]
Sent: Thursday, June 07, 2018 9:51 AM
To: ALLEN Jason * OPRD; JOHNSON Ian * OPRD
Cc: Noah Walden; Jenna; Jude Hanson; Gary Grund; Suzanne Grund
Subject: COC Canal Nomination Public Hearing

Hello! I hope you are both well!

On behalf of my clients, Jennifer Egusa, Noah Walden, Judith Hanson, Tony Licitra, and Suzanne and Gary Grund, I respectfully request that the SACHP chair, Deb Schallert, recuse herself from participating in the public hearing in Redmond on June 22, 2018 of the nomination of the Central Oregon Canal Historic District (Ward Road-Gosney Road Segment).

I believe Ms Schallert was correct when she recused herself during the public hearing and deliberations on the nomination of the Pilot Butte Canal Historic District (Yeoman Road - Cooley Road Segment).

She has a perceived conflict of interest with her position at PGE.

COID is an owner of a 13.14 acre parcel that is crossed by the canal in the proposed historic district and it operates and maintains the COIC Canal. COID has a financial agreement with PGE about electricity produced by hydro-power that is currently generated and is planned to be generated by COID.

The Oregon SHPO web site states the following:

Deb Schallert, Chair

Deb Schallert joined Portland General Electric (PGE) in 1995, bringing to PGE 14 years of experience in parks and recreation management and administration with the Oregon Parks and Recreation Department (OPRD). At OPRD, Schallert worked with the Governor's Office of Natural Resources, the Oregon Economic Development Department, and the 1987 Oregon State Legislature, and also served as a park ranger and manager. Schallert now serves as the permitting manager for PGE's

proposed Cascade Crossing Transmission Project and manages licensing issues associated with lands, aesthetics and cultural resources/historic preservation.

Thank you for considering my request.

Best wishes.

Pat Kliewer
60465 Sunridge Drive
Bend, OR 97702
pkliewer@hotmail.com
Phone 541 617-0805

ALLEN Jason * OPRD

From: Nick Lelack <Nick.Lelack@deschutes.org>
Sent: Wednesday, April 11, 2018 11:51 AM
To: 'pkliwer@hotmail.com'
Cc: Zechariah Heck; Peter Gutowsky; Matt Martin; Peter Gutowsky; 'Jenna'; 'Aleta Warren'; 'Steven.Liday@MillerNash.com'; 'Jeff Perreault'; 'Suzanne Grund'; 'Jude Hanson'; ALLEN Jason * OPRD; 'Ian Johnson'
Subject: Corrections: Site visit to Ward-Gosney Historical Canal nomination
Importance: High

Ms. Kliwer:

bcc: Deschutes County Historic Landmarks Commission

I apologize for responding to everyone and bcc'ing the HLC, but I need to correct the record on two points below. Zech already responded to other issues.

First, I did **not** state to commissioners that they should not read the report. Of course, they should absolutely read the report, and we appreciated you providing the copies. We listened to the meeting's recording to determine if there may have been a statement I made that was misunderstood, but did not find anything. I am interested in the basis of this claim. If Historic Landmarks Commissioners bcc'd on this message misunderstood my statement(s), I respectfully request they contact me to discuss.

Second, staff is not discouraging commissioners from visiting the site. Rather, staff is not scheduling a formal HLC tour. If individual commissioners are interested in visiting the site, they should contact staff to facilitate such a tour or coordinate directly with COID or property owners. This is consistent with the process we utilized for the BOCC last fall. There will be time to conduct such tours if commissioners are interested between April 17-30.



Nick Lelack, AICP | Director
DESCHUTES COUNTY COMMUNITY DEVELOPMENT DEPT.
117 NW Lafayette Avenue | Bend, Oregon 97703
Tel: (541) 385-1708 | Cell: (541) 639-5585



Enhancing the lives of citizens by delivering quality services in a cost-effective manner.

From: Pat Kliwer [<mailto:pkliwer@hotmail.com>]
Sent: Friday, April 06, 2018 3:58 PM
To: Zechariah Heck <Zechariah.Heck@deschutes.org>; Jenna <jewalden@gmail.com>; Aleta Warren <a.warren.bend@gmail.com>; Steven.Liday@MillerNash.com; Jeff Perreault <jeff.a.perreault@gmail.com>; Suzanne Grund <sgrund@bendcable.com>; Jude Hanson <judehanson@yahoo.com>; ALLEN Jason * OPRD <jason.allen@oregon.gov>; Ian Johnson <ian.johnson@state.or.us>
Subject: Re: Site visit to Ward-Gosney Historical Canal nomination

Hi! I hope you are well. I enjoyed talking to you after the last HLC meeting and sharing how the HLCs since 1986 have reviewed and celebrated national register nominations that furthered the written local history, and how critical site visits by all members of the HLC are.

I noticed that Nick Lelack took at least two of the six full color copies of the nomination of the Central Oregon Canal that I (at a substantial personal cost) printed from the SHPO web site and provided for the members of the HLC that night. He said that the other four members who chose to keep their copies should not read it until he directs them to do so. Once I handed it out, it became public record. It was made public record when it was posted on the SHPO web site.

Your answer to Jenna led me to think that you are assuming a certain type of hearing on April 16 and the staff is again discouraging HLC members from visiting the site. If you want them to share their pre-meeting observations at the hearing, that is great. They can all learn from one another and those attending and speaking at the meeting can refer to those observations in their comments. That is what they are supposed to do; but it is not a reason to discourage the HLC from a site visit we have been talking about for over 6 months and that the NPS wrote about in their letter to the Oregon SHPO.

Are you assuming that the April 16 agenda for the review of the nomination before the HLC will be listed as a quasi-judicial hearing, including having the chair read the required quasi-judicial procedural opening statement with the commissioners declaring ex parte contacts and prior knowledge of local history, followed by the quasi-judicial order of hearing: staff report on the application meeting or not meeting the applicable criteria, the presentation by the applicant, those in favor of the application, those opposed and then the applicant's rebuttal of opposition -then a motion, second, discussion and a vote.

I like the structure of quasi judicial hearings and think it makes a predictable, orderly and fair meeting. But, is it appropriate in this situation? Did the SHPO tell you what procedures to follow? I have asked and they say there is great variation among jurisdictions and HLCs.

If the County is going, for the first time since 1986, to see this as a local land use application and follow quasi-judicial procedures and discourage the HLC from reading the nomination and performing a site visit, has the County met all the procedural requirements: a timely notification of the Applicant and property owners and posting the site, as required for a quasi-judicial hearing on April 16? Has the application been given a case file number? The burden of proof would be on the applicant. What County criteria would be used? What is at the conclusion of the hearing?

However, if the commission is acting solely in an advisory capacity to share its boots-on-the-ground observations of the appearance and integrity of the actual historic site and its knowledge of local history, and to discuss the original historical information and evaluation of integrity in the nomination, how can you do that without a site visit and reading the nomination?

If there is no local application, no local criteria, and no site visit, what procedures are you following?

Pat Kliewer
60465 Sunridge Drive
Bend, OR 97702
pkliewer@hotmail.com
Phone 541 617-0805

From: Zechariah Heck <Zechariah.Heck@deschutes.org>
Sent: Friday, April 6, 2018 1:17 PM
To: 'Jenna'
Cc: Pat Kliewer
Subject: RE: Site visit to Ward-Gosney Historical Canal nomination

Jenna,

I will pass along your invitation to the HLC. However, please understand that we do not have the resources available to hold a site visit with the entire HLC because of public meeting requirements. If individual commissioners want to make a site visit to the proposed canal historic district, they are welcome to. If any ex parte contact is made, they will need to announce it at the meeting and explain the nature of the contact.

Thank you,



Zechariah Heck | Associate Planner

DESCHUTES COUNTY COMMUNITY DEVELOPMENT

117 NW Lafayette Avenue | Bend, Oregon 97703

PO Box 6005 | Bend, Oregon 97708

Tel: (541) 385-1704 | www.deschutes.org/cd



Disclaimer: Please note that the information in this email is an informal statement made in accordance with DCC 22.20.005 and shall not be deemed to constitute final County action effecting a change in the status of a person's property or conferring any rights, including any reliance rights, on any person.

From: Jenna [<mailto:jewalden@gmail.com>]
Sent: Friday, April 06, 2018 12:28 PM
To: Zechariah Heck <Zechariah.Heck@deschutes.org>
Cc: Pat Kliewer <pkliewer@hotmail.com>
Subject: Site visit to Ward-Gosney Historical Canal nomination

Dear Mr. Heck;

The canal water turns on April 9th. When the water comes on, one will be unable to see many of the "Contributing Structures in the Historic District" as they will be covered up by water.

We would like to extend the invitation again to members of the Historic Landmark Commission before the April 16th meeting that reviews our nomination. We would welcome a site visit. Please let us know if that is possible.

Sincerely, Jenna Walden
Property owner

Hi,

My name is Lisa Hyatt. My parents Gary and Suzanne Grund are proud owners of a portion of the canal with deeded water rights sold to the property by the Carey Act. I'm writing this letter and will be driving from Portland to attend the SACHP hearing on Friday, June 22nd to show my support for the nomination of the Central Oregon Canal Historic District into the National Register of Historic Places. I ask that you vote to forward this nomination onto the National Park and Recreation Service.

I was born and raised in Bend so I grew up with the Canal being a very important part of my daily life. Did you know that prior to the canal being built, in 1900, there were only approximately 21 people living in Bend? And Bend, along with much of the surrounding area, was classified as 'arid' and thought to be almost worthless due to the light rainfall? You wouldn't know that today from the over 91 thousand that currently live there. The construction of this canal that began in approximately 1905 brought value to the land and settlers from all over who purchased land and bought water rights.

The nominated section from Ward to Gosney Road has so many historical scars and artifacts remaining today that tell a story of its creation. The Bear Creek Ranch Bridge that resides on our property is truly one of a kind. It was built around 1928 by the property owner, Dragan W. Mirich, to provide access across the canal from Break Creek Road to his land on the south side of the canal. I wish I had been around to see the construction because it's seriously impressive when you think about the tools they had available to them at the time! He started with creating three huge concrete piers. On top of the middle pier a massive steel "I" beam was placed horizontally. And then six 10" x 10" rough-sawn lumber was placed parallel to the piers. Since the bridge spans 65 ft. long and 10 ft. wide, the weight of ONE of those was probably over 300 lbs. Finally, 4" x 12" wood planking was placed across those beams providing the level driving surface. Now that is a lot of material, man power, and true grit to get to the final result. My family still uses this bridge on a daily basis to get to our property. Isn't it amazing that to this day, 90 years later, this bridge is still standing and being used for the same purpose it was created for originally? I think that is what history is all about and that is why this is only one of many historic structures in this stretch of the historic district. I have included a recent picture of my dad and son, Braydon, using the bridge on one of their many 4-wheeler expeditions around our property. Pictures really don't do it justice so if you find yourself in the Bend area I highly recommend you come by and see it for yourself. My dad would be happy to give you a history lesson.

In this same section of the canal there is also a historical headgate that was engineered to divert water from the main canal into the irrigation ditch to our property. This ditch is maintained by my family because it feeds into our upper pond that breaks off from there and waters our fruit trees. It then flows down to a lower pond where the pump pulls water to irrigate our land. I have so many memories as kids having to move all that irrigation pipe for the alfalfa grass we grew at the time. AGAIN this illustrates that 90 years later the water from the historic canal is providing the same value to our property that was originally promised and taken advantage of by the settlers. We were taught hard work by my parents, to live off the land and utilize it to the fullest. The history shows that without the hard work of the settlers who were brought by the canal before us our home wouldn't be what it is today, Bend wouldn't be what it is today and I wouldn't be who I am today. Doesn't that deserve to be preserved so we can educate our future generations. I want to be able to not only tell stories, but physically show my 2 year old son and soon to be daughter, the history of how our family home was created. Because of all of this, I ask that you vote to forward this nomination onto the National Park and Recreation Service.

Thank you so much for taking the time to hear my story and I look forward to seeing you at the upcoming hearing.

Sincerely,

Lisa Hyatt

6/19/18



ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Wednesday, October 25, 2017 1:40 PM
To: Barb Meyers; ian.johnson@state.or.us
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Historic Designation of Canals fed by Deschutes River

Ms. Meyers:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be added to the public record for consideration during the next steps of the process. Our agency website has further details: <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Central-Oregon-Canal-Historic-District.aspx> .

Many people contacting our office have expressed concern about balancing the many needs of the community. Unfortunately, the National Register program does not address these issues. The National Register is a program of the federal National Park Service and is locally administered by our office. The purview of the State Advisory Committee on Historic Preservation, our office, and the National Park Service is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the National Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx .

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Barb Meyers [<mailto:barb.meyers55@gmail.com>]
Sent: Friday, October 20, 2017 12:08 PM
To: ian.johnson@state.or.us
Subject: Historic Designation of Canals fed by Deschutes River

Dear Mr. Johnson,

We would like to add our voices in preventing historic designation of the canals fed by the Deschutes River. Instead, we are in solidly in favor of piping and covering the canals, where possible, to drastically reduce extensive water loss to seepage and evaporation. Sisters has enjoyed great accolades for a similar project, thus successfully restoring six miles of habitat and flow of Whychus Creek.

We strongly urge you to vote NO on the Historic Designation of canals in Central Oregon in order to restore the health of the Upper Deschutes River.

Thank you for your thoughtful consideration.

Barb and Mark Meyers

ALLEN Jason * OPRD

From: Noah Walden <noahwa@gmail.com>
Sent: Wednesday, June 20, 2018 3:28 PM
To: ALLEN Jason * OPRD; JOHNSON Ian * OPRD
Subject: Letter supporting Nomination: Central Oregon Canal Historic District: Ward Road to Gosney Road

Dear State Advisory Committee Historical Preservation Members;

I am writing in support of this nomination. Our region is facing many difficult choices regarding our use of water and the Deschutes in the coming years, and with population growth and changing usage patterns we all need to be involved as a community with determining the future. But in doing so we must not forget the past.

The canals of this region were the foundation of the town, and it's hardly an exaggeration to say that there wasn't a Bend to speak of before the canal projects began. Many stretches of the canal have already been adulterated to such an extent that they have no remaining historical integrity. That is not the case with the nominated stretch, which, through research and interviews, we have found to retain all of the characteristics that it did when the region was settled. The State has agreed that the canal is historic and has decreed that some part of it be so designated.

Given the near universal support among the people who own the land the canal flows over to make it a historic district, doesn't it makes sense to preserve this small stretch for future generations to walk alongside and within? To allow them to see where more than 100 years ago teams of horses dragged Fresno scrapers and hand drilled rock to blow dynamite in an effort to reshape the landscape and carve a community out of lava rock and high desert? It's placement, on the outskirts of our growing town, and with adjoining park land, makes it ideal for more use by and integration into the community. Already it is a popular place to walk horses, hike, and ride bikes. We hope to see more of this activity in the future.

I hope you'll find as I have that this stretch of canal meets or exceeds the standards for a Historical District and should be preserved. Thank you for your time and consideration.

Sincerely,
Noah Walden
Property owner
61885 Somerset Dr., Bend

ALLEN Jason * OPRD

From: Michele Oliver <coastalolivers@gmail.com>
Sent: Friday, June 08, 2018 10:27 AM
To: ALLEN Jason * OPRD
Subject: Central Oregon Canal Historic nomination for Gosney to Ward Road segment

Follow Up Flag: Follow up
Flag Status: Completed

I support the preservation of this portion of the canal being protected for future generations. Now is your chance to do something right, once it is gone it will never be replaced and will such a terrible loss

Michael Oliver

ALLEN Jason * OPRD

From: Michele Oliver <coastalolivers@gmail.com>
Sent: Friday, June 08, 2018 1:13 AM
To: ALLEN Jason * OPRD
Subject: Central Oregon Canal Historic Nomination

Follow Up Flag: Follow up
Flag Status: Completed

Have been a recent visitor to Bend and want to say we were able to enjoy the natural canal in your city. What a WONDERFUL asset to the area. Heard there has been talk of enclosing this waterway within metal culverts. I hope this NEVER happens. It would be such a terrible loss not to preserve this BEAUTIFUL waterway as it is for ALL! ADDING central oregon canal...Gosney to Ward Road segment to the historical registry would be a step in the right direction to help protect and save this historical part of Bend.
Michele Oliver

February 18, 2018

Memo of Understanding

TO: Tracy Zeller, Advisory Committee on Historic Preservation

FROM: Bill Olsen, Deschutes County Landmarks Commission, Board Member

RE: Central Oregon Canal Historic District (Ward Road to Gosey Road 2.5 mile section)

Thank you for your return call (October 2017). For the record the attached is my (revised) "personal" written testimony supporting the nomination to the National Register of Historic Places.

I understand that no decision was made in this regard at your previous October 20th Commission meeting, or your February 2018 meeting that the record remains open for written testimony in this regard.

The attached document dated October 3, 2017 (revised February 5, 2018) is my personal endorsement supporting said COID Historic (preservation) Request and as explained, I thought it would be submitted to the Advisory Committee as a document in support, although contrary to the Deschutes County Commission and their Landmark's Board action.

However, I found later that my personal analysis and endorsement was not shared with your committee. Therefore, with this Memo of Understanding here is my personal endorsement as a Board Member to the Deschutes County Landmarks Commission, dated October 3, 2017 (revised February 5, 2018).



Bill Olsen

(541) 480-5458 (email: bobo2@bendbroadband.com)

October 3, 2017

(Revised February 5, 2018 for submittal to Advisory Committee on Historic Preservation)

TO: Deschutes County Planning Dept (Landmarks Commission), staff

FROM: Bill Olsen, Deschutes County Landmarks commission Board Member

RE: National Register of Historic Places (Central Oregon Canal Historic District Ward Road –Gosney Road)

Regarding this referenced property nomination to the National Register of Historic Places, the action of the Board, 10/2/2017 public meeting, was not to take action in support for or against this request, but rather to submit our concerns, collectively, and Deschutes County Staff would submit our remarks to the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

Our Board was selected to work at the pleasure of the Deschutes County Board of Commissioners, to make representations on behalf of said commissioners relating to DESCHUTES COUNTY LANDMARKS and HISTORIC SITE SELECTION. We are their eyes and ears and our charge is to "safeguard historic sites".

Yet, another Central Oregon Historic Site is being held hostage. A portion of the COID, an approximate 2.5 mile canal between Ward Road East to Gosney Road.

The fact remains, just like the Juniper Ridge canal portion, this particular site is a "historic site location" in nature. Constructed between 1906 and 1923 this irrigation canal structure allowed for homesteads and land development, which led to farming, crop production which supported animal production in the region, which in turn provided the force to drive commerce within developing Deschutes County. Some historians believe that Deschutes County was spun off from Crook County because of the creation of the COID and this unique and historic water delivery system. The Crook County area had the water with a natural water delivery system and the area which became Deschutes County had limited water and no delivery system.

One needs to merely read the many historic accounts from our early settlers to understand and realize the importance of those many historic sites, and structures which makes Deschutes County what it is today: THE OREGON DESERT, DESERT SAGE MEMORIES, THE RIVER FLOWS AS THE MOUNTAINS WATCH, THE PIONEER SPIRITS OF BEND, AND IT IS TOO COLD TO SNOW to name just a few of local literature.

Therefore, for the Record: I vote "OK" on Integrity: this portion of the canal, I believe, is historic with regard to construction, materials, design and location

I vote "OK" on Description: in reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified

I vote "OK" on Significance: Again, one needs to merely reference the above books and memories written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923

I vote "OK" on Facts and Sources: the data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

As an appointed Board Member I support this nomination- Bill Olsen



From: [JOHNSON Ian * OPRD](#)
To: [Carsen O'Neill; ian.johnson@state.or.us](#)
Cc: [ALLEN Jason * OPRD; ZELLER Tracy * OPRD](#)
Subject: RE: Please vote NO on historic designation of Canals
Date: Wednesday, October 25, 2017 1:38:43 PM
Attachments: [image001.png](#)

Mr. O'Neil:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be added to the public record for consideration during the next steps of the process. Our agency website has further details: <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Central-Oregon-Canal-Historic-District.aspx>.

Many people contacting our office have expressed concern about balancing the many needs of the community. Unfortunately, the National Register program does not address these issues. The National Register is a program of the federal National Park Service and is locally administered by our office. The purview of the State Advisory Committee on Historic Preservation, our office, and the National Park Service is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the National Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx.

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Carsen O'Neill [mailto:carsen@centraloregonhottubs.com]
Sent: Friday, October 20, 2017 2:55 PM
To: ian.johnson@state.or.us
Subject: Please vote NO on historic designation of Canals

Mr. Johnson,

My name is Carsen O'Neill. I am father to two little boys, Kieran and Finnegan O'Neill, and they are second generation Bend citizens. My father came to Deschutes County in 1974, and after I was born in 1977 he started a business here in Sunriver. Today this locally owned and family operated business still serves Bend, LaPine, Tumalo, and Sunriver with respect and gratitude for this beautiful place I grew up in. My family and I are homeowners, business owners, and commercial property owners in Deschutes County, and we have generations of voters and future voters living right here on the upper Deschutes river. I only tell you these things to qualify myself as a contributing member of our local society who is showing a desire to be heard. What is most important to me has little to do with property or socioeconomics.

The River, in many ways, not only makes this one of the most recreated natural corridors in Oregon, but is a vital part of the economy in South Deschutes County. Material things aside, I grew up on this Upper portion of the Deschutes. I learned to swim in it. I caught my first fish in it. Both of my boys can make the same claim. The Upper Deschutes is where people in the growing city of Bend can come to get a picture of what I knew as a child. It is a wild and scenic waterway. But in the last decade, living near the river, we have watched it turn into a faucet for "irrigators" in the north of the County. I have attached two pictures of the same stretch of river for reference. In the winter time, the flow is so little (particularly above the fall river confluence) that fish get stuck in pools; which then freeze or become feeding buffets for predators. As a result, the fishery is a sad reflection of what it was less than 20 years prior. When the summer comes, trees are falling into the river that have stood at its banks for as long as I've been here, and people's old docks and decks are being washed away by the very nearly sudden arrival of water from Wickiup. The riverbed is so radically manipulated that sandbars are popping up where there used to be channels, and underwater vegetation is choking the river to a standstill where it once flowed forcefully. The elk herd that crossed the river in front of my parent's river cabin for a hundred years have had to find a new ford, and we rarely see them in the last decade. There are fewer Otters, fewer Beavers, fewer fish, and fewer waterfowl. I am not a biologist, nor an ecologist, but I am a voting citizen of this county who will stand by no longer while politicians and councilmen/women twiddle their thumbs and pass the buck on finding solutions that will serve EVERYONE in Deschutes County with regards to the river and the water that must be diverted from her to sustain the needs of the drier parts of our County.

Mr. Johnson, I realize that this is a multi-faceted monster of a topic for you and your fellows. I have no agenda. I am not interested in any position other than the health of this river and what can be done to mitigate further degradation to its overall health. I fully accept that people need water, have water rights, and that more water will still be needed as growth continues. What should be done is an argument; but what can be done is what I'm interested in. One thing that can be done is to take steps to ensure that the water diverted from the river for irrigation is maximized and efficiently distributed. Canals are one of the most inefficient and water-costly possible ways for this water to be transported. If there is to be any hope of at least sustaining what health remains in the river ecosystem, a reengineering of this antiquated delivery system must be championed.

Please count my family's voice in voting NO to designating canals as "Historic", and permanently closing the books on the discussion.

Sincerely,

Carsen O'Neill
541-480-9325

55790 Snowgoose Rd.
Bend, OR 97707

ALLEN Jason * OPRD

From: Ken Roberts <kenroberts@bendcable.com>
Sent: Monday, June 18, 2018 8:50 PM
To: ALLEN Jason * OPRD
Subject: Historic Canal preservation

Mr. Allen,

In reading through the fantastic historical significance of the canal between Ward and Gosney Roads I would certainly like to see that this stretch is preserved as an example of the foresight and hard work that helped Central Oregon to become what it is today. Without the canal built 100 years ago the growth of this part of the country may not have come to fruition and it would be a shame to cover up our history which would be tantamount to tearing down the Pilot Butte Hotel which many bemoan to this day as a tragedy.

I understand the need to preserve our water resources but to disregard a part of our local history would be an unforgivable tragedy. If Bend Park & Recreation worked to include this section of the canal in a historic trail system that is open for all to enjoy and learn of this wonderful historic accomplishment of our predecessors that would be something our community could be proud of in years to come.

Thank you for your consideration of my request which I am sure is echoed by many other local citizens who wish to preserve an important part of our Central Oregon history.

Ken Roberts
Citizen of Bend

ZELLER Tracy * OPRD

From: JOHNSON Ian * OPRD
Sent: Monday, April 23, 2018 2:25 PM
To: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: FW: Canal Piping Ward to Gosney

More comments for COC to go with 30-day mailing.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Ken Roberts [<mailto:kenroberts@bendcable.com>]
Sent: Monday, April 23, 2018 10:43 AM
To: JOHNSON Ian * OPRD
Subject: Canal Piping Ward to Gosney

Please consider not piping this stretch of the canal as it really does have historical significance. I understand the need for piping but we need to keep some of our Bend history alive so future generations can see what hard work our predecessors did to make this a livable country that we all enjoy.

Thanks,

Ken Roberts

ALLEN Jason * OPRD

From: Jacob Schumacher <jacobgschumacher@gmail.com>
Sent: Tuesday, June 19, 2018 4:19 PM
To: ALLEN Jason * OPRD
Subject: Fwd: Canal preservation - Central Oregon

----- Forwarded message -----

From: **Jacob Schumacher** <jacobgschumacher@gmail.com>
Date: Tue, Jun 19, 2018 at 4:18 PM
Subject: Canal preservation - Central Oregon
To: Ian.johnson@oregon.gov, Jason.allen@oregonoregon.gov

Hey Ian and Jason,

My name is Jacob Schumacher and I am a Central Oregon/Bend local, born and raised. I have been following the ongoing issue of canal preservation and nomination to the national register of historical places.

I just wanted to email you in my support of saving stretches of the canal and sought out your contacts as the elected officials to report to. If there is anything I can do in your opinion to advance the support of preservation just let me know. I believe not all of the canals, but many stretches of them are now part of the ecology of the area.

Thank you for your time!

--

Jacob G Schumacher
Broker - Alpine Real Estate
General Contractor - Schumacher Construction
Cell: [541.408.3769](tel:541.408.3769)

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Jacob G Schumacher
Broker - Alpine Real Estate
General Contractor - Schumacher Construction
Cell: [541.408.3769](tel:541.408.3769)

6/19/18

To: The National Register of Historic Places

My name is Sean Hyatt, and I married the most beautiful girl ever born and raised on Bear Creek Ranch in Bend, Oregon, which is owned by Suzanne and Gary Grund. I was born and raised in Portland and now my family and I live just a little further south in Tualatin. I went to school at Oregon State University, where I graduated with my Bachelor's Degree in History, and I've always been very interested in learning where everything came from. Interested in how the world we live in came to be the way it is today. Interested in the mistakes we've made, if we've learned from them, and what was done to correct them. So, one of the many great things about marrying into the Grund family was how much passion Gary had for learning history as well. We've visited many antique districts around the state together, and just passed time telling stories from books we've read or documentaries we've seen on different people, places, and events in history. Bear Creek Ranch and the city of Bend are very lucky to have someone that cares so deeply about their history, and works very, very hard to not only preserve it, but to pass it on as well.

My first time visiting the Grund family, when Lisa and I started dating, I remember coming across the bridge over the canal and admiring not only the beauty of the entire property itself, but of the rushing water flowing through the canal under the bridge as we crossed over. I, of course, had to mention it to Gary and Suzanne once I met them, because it's just something that's too difficult not to compliment. And Gary, of course, being who he is, had to give me the whole story of how that canal came to be. How the canal was built around 100 years ago to encourage settlers to move to the Central Oregon areas. How many years of hard, grueling work allowed those places to actually be livable, thanks to the water from the built canal. How their property, all of the surrounding properties, and the entire city of Bend wouldn't be the way it is today without it. It's been really fun learning even more about the canal and its history during my research after this nomination came to be.

What I would really hate to see happen is for these stories, the history of this entire area's beginning, to slowly become forgotten, or replaced with less attractive stories. If this stretch of the canal is not protected, if this stretch of the canal which is owned by the people who reside there with the deeded water rights sold to them by the Carey Act is not protected, then what happens next could be devastating. We risk letting the canal be subject to other projects, turning it into something that people no longer ask about, even avoid talking about, thus slowly losing the history and integrity of the canal. As passionate as Gary was in telling me about the rich history of their property that day, and many similar stories since, I will be that passionate in filling our 2-year-old son (and soon to be born daughter) in on that history, and his friends, and the same goes for the other property owners and their next generations. How difficult is it to paint the picture when the physical evidence is all but erased, or replaced? I ask that you vote to forward this nomination onto the National Park and Recreation Service. I would hate for this to be another mistake made, because once we learn from this one, there's nothing that can be done to correct it.

Thank you very much for listening.

Sean Hyatt

SHPO June 22, 2018

To: Ian Johnson, Association Deputy State Historic Preservation Officer
Robert Olguin, National Register Program Coordinator

I would like the opportunity to speak during the “Discussion of issues of interest and concern to the public not on the agenda.” My presentation will be very short!

As a member of the Oregon-California Trails Association, I feel it is important that the Advisory Committee recognize that this year, 2018, is the 175th Birthday of the Oregon Trail. It is also the 50th anniversary of the National Trails Act which designated the Oregon Trail as a National Historic Trail.

Oregon will have many activities celebrating these two events. Not the least will be:

Teams of college students driving solar-powered vehicles from Omaha, Nebraska, to Bend, Oregon on 1,700-mile “race” that will follow the Oregon Trail.

U.S. Capitol Christmas Tree will be cut in the Willamette National Forest and make its way along the Oregon Trail to Washington D.C. in December.

AND most important, I hope to present a nomination for about 3 miles of the Oregon Trail for consideration to the National Register at your October meeting.

The last Oregon Trail segment listed was Well Springs in 1978 the only other was in 1975 covering Keeney Pass. It is time for additional consideration. I hope to piggy back on Dr. Beckham’s multiple property listing done in 2013.

Thank you for your time.

Gail Carbiener

19506 Pond Meadow Ave.

Bend, Or. 97702

(541) 567-5634

From: Matt.Singer@hklaw.com
To: [ALLEN Jason * OPRD](#)
Cc: [JOHNSON Ian * OPRD](#); [CURRAN Chrissy * OPRD](#)
Subject: Peer Review: Ward to Gosney Central Oregon Canal
Date: Monday, June 18, 2018 8:18:49 AM
Attachments: [COC_WARD2GOSNEY_ASSETS.pdf](#)
[ICF_Data_map.pdf](#)
[Poster_Eval_contrib_noncontrib_unknown.pdf](#)
[JRP_Peer_Review_NR_Nom_COC_\(Ward-Gosney\)_Historic_District_180412_w-CVs_\(2\).pdf](#)

Jason,

Please see attached a peer review commissioned by Central Oregon Irrigation District regarding the nomination of the Ward-to-Gosney Roads section of the Central Oregon Canal. A formal comment letter will follow, but in light of the short time between now and the Friday hearing in Redmond, we wanted to provide this peer review and associated maps so that SHPO and the state advisory committee had ample opportunity to review in advance of JRP's presentation to the committee on Friday.

Thank you, and safe travels to Central Oregon later this week.

Matt Singer | Holland & Knight
Partner
Alaska | Oregon
Phone 907.263.6318 | Fax 907.263.6345
matt.singer@hklaw.com | www.hklaw.com

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April 12, 2018

To: Craig Horrell, General Manager | Central Oregon Irrigation District

From: Scott Miltenberger, PhD, Partner, and Meta Bunse, Principal / Vice-President

Subject: Peer Review of National Register of Historic Places Nomination of Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)

At your request, JRP Historical Consulting, LLC (JRP) prepared this peer review of the National Register of Historic Places Nomination of the Central Oregon Canal Historic District (Ward Road-Gosney Road Segment). The nomination is dated June 27, 2017, but was revised and then resubmitted to the Oregon State Historic Preservation Office (SHPO) in November 2017. Patricia A. Kliewer, MPA, Historic Preservation Planner, of Kliewer Engineering and Associates prepared the nomination of the Ward Road-Gosney Road Segment and for the sake of brevity, it is referred to in this review as the “Segment Nomination.” JRP not only examined the Segment Nomination, but also considered prior surveys, inventories, and evaluations of the larger historic property of which it is a part – the Central Oregon Canal (COC) and Central Oregon Irrigation District (COID) – and consulted federal and Oregon state cultural resources guidance documentation for the nomination of historic districts. Additionally, in December 2017, JRP made a field survey of the Ward Road-Gosney Road Segment to confirm the prior findings of a survey of the entire Central Oregon Canal and COID system undertaken by ICF International (ICF) for COID and the United States Bureau of Reclamation (USBR) in 2014. Copies of our CVs are attached.

In our professional opinion, the Segment Nomination fails to make a compelling case for listing the segment of canal as a proposed historic district in the National Register of Historic Places (National Register) for several reasons. First and foremost, the nomination offers a muddled argument for the historical significance of the Ward Road-Gosney Road segment itself and questionable assessments of the historic integrity of proposed contributing elements of that district. Yet, its flaws are not limited to its internal deficiencies. The nomination is advanced without recognition of prior determinations of eligibility for the COC, and most critically ignores the historic context and registration requirements for listing such a property as detailed in the National Register-listed multiple-property document, *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978* (Carey and Reclamation MPD), in contravention of both federal and state guidance. This leads to a misplaced sense of importance of this particular canal segment, which ultimately is of little historical value on its own.

[Evaluation of the Segment Nomination, on Its Own Terms](#)

Evaluated solely on its own terms, the Segment Nomination falters with regard to its analysis of historical significance and historic integrity – the necessary requirements for National Register listing. The Ward

Road-Gosney Road Segment is nominated under significance Criterion A, one of the four criteria of significance for evaluating eligibility for listing in the National Register, “for its local significance...in the areas of Exploration and Settlement and Agriculture.” Specifically, for the period between 1905 and 1937, the nomination asserts that this canal segment:

...is significant for its association with the exploration and exacting mapping of the high desert that allowed an open canal system that conveyed water by gravity, and with the development of an ambitious canal system that provided necessary irrigation water for agriculture in the vast 47-mile long irrigated corridor between the Deschutes River in Bend and the Powell Butte area, and with the nationwide, private, marketing campaign that attracted thousands of settlers to the arid high desert.

None of the aspects of significance identified – i.e., “exploration and exacting mapping of the high desert,” “an open canal system,” conveyance of “water by gravity,” delivery of “necessary irrigation water for agriculture,” or a “nationwide, private, marketing campaign that attracted thousands of settlers to the arid high desert” – is in any way unique to this specific small segment of the COC, let alone to COID, Eastern Oregon, Oregon, the Great Basin, or the West. In fact, each of these are typical aspects of most public and private Western reclamation projects in the late 19th and early 20th centuries, and the Segment Nomination does not demonstrate how this typical and unremarkable canal segment is specifically significant.¹

These strained assertions notwithstanding, the nomination’s “Statement of Significance Summary Paragraph” emphasizes the canal’s engineering and the difficulties surmounted in its construction:

The nominated section is a significant stretch of the 112-year-old canal that carries an impressive 530 cubic feet per minute of water diverted from the Deschutes River through a structure crudely made of native rock and soils. The canal in the historic district was a critical stretch and was the most challenging to construct. While most of the gradually-narrowing canal traverses a relatively flat plateau, this stretch is the hilliest, rockiest and most uneven and has lava tubes and sudden drops in elevation to bridge. It took a year to complete and was originally under-sized, to meet demanding construction schedules with a shortage of laborers. That resulted in a bottleneck, and it was therefore widened twice (in 1907 and 1914) to facilitate water volumes downstream to deliver adequate water to settler in Powell Butte. The accomplishment of moving tons of rock, building the 350-foot long wooden flume, the 215-foot-long concrete Burt Chute and constructing miles of huge embankments on the downhill sides, exemplifies private enterprise and laborers overcoming the challenges presented by the region’s geology. It reflects the construction methods and materials used throughout the irrigation system. It took an extraordinary amount of private

¹ A search of one of the three National Park Service databases of National Register properties using the term “irrigation” indicates that there are 9 such National Register-listed canals, ditches, or other Western water conveyance systems not dissimilar to COID’s system and the COC. There are, of course, many other irrigation-related historic properties that have been “determined eligible,” and not included in these databases. See National Register of Historic Places, “Digital Archive on NPGallery,” <https://npgallery.nps.gov/nrhp>, last accessed March 5, 2018. Outside of academic monographs of the history of Western reclamation, *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*, prepared by JRP and the California Department of Transportation (Caltrans) in December 2000, is an example that furnishes evidence of the ubiquity of gravity-fed open canals for agricultural irrigation. A copy of this report is available online from Caltrans at: <http://www.dot.ca.gov/ser/downloads/cultural/CanalsDitches.pdf>, last accessed March 5, 2018.

capital, exception expertise in the utilization of technology, and enormous labor and horse-power to build the canal through the district.²

This argument is more appropriate for evaluating this canal segment under Criterion C of the National Register rather than under Criterion A. “To be considered for listing under Criterion A,” according to National Register *Bulletin No. 15*, “a property must be associated with one or more events important in the defined historic context,” such as “settlement,” and “the property must have an important association with the event or historic trends, and it must retain historic integrity.”³ Criterion C, by contrast, “applies to properties significant for their physical design or construction, including such elements as architecture, landscape architecture, engineering, and artwork.” Examples for engineering or infrastructure properties deemed important for design and construction include those that represent “technological advances.”⁴

For the Ward Road-Gosney Road Segment, the nomination claims that “exceptional expertise” was required to build a structure through rugged terrain that today conveys an “impressive” amount of water. The emphasis is clearly on the technology employed in the nominated segment – a Criterion C argument. Yet, the nomination perplexingly does not argue for listing this canal segment under the National Register under Criterion C. It instead attempts to use the rugged landscape as part of an argument that the segment is important to local farming under Criterion A, but all that this contention does is highlight that the farms in this area often failed because of the poor soil, despite the advent of irrigation:

Farmable land in the historic district was sold to settlers by the development companies under contract with the State of Oregon under the Carey Act, beginning in 1909. By 1937, settlement of irrigable and farmable land in the district was complete, but, some poor land with no water rights remained in public ownership. Settlers in the historic district included five women and people from Austria, Australia, Yugoslavia, Norway, England, and at least eight states. Typical of thousands of settlers in the area, a minority of settlers along the canal in the district, such as dairy farmers Phillip Burt and the Bradetich Brothers, became long-term, successful farmers. Most settlers supplemented the farm income by holding other occupations, because productivity of the land was marginal. Others were not successful farming the rocky, volcanic soil in the high desert with its short growing season and harsh winters, and sold their land. Others lost their land through COID, tax or mortgage foreclosures, often in the 1920s and 1930s. One settler in the district rebought their land when finances improved.⁵

Even these claims fail to support historic importance under either a Criterion A or C argument. The last four sentences of the statement, in fact, undercut the purported historical significance of the canal to the

² United States Department of the Interior, National Park Service, National Register of Historic Places Registration Form, “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” prepared by Patricia A. Kliewer, MPA, Historic Preservation Planner, Kliewer Engineering and Associates, date July 27, 2017 [hereafter cited as “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)”], 1 and 44-45.

³ US Department of the Interior, National Park Service, “How to Apply the National Register Criteria for Evaluation,” by the staff of the National Register of Historic Places, finalized by Patrick W. Andrus, edited by Rebecca H. Shrimpton, *National Register Bulletin 15* (Revised 1991, 1995, 1997, Revised for Internet 1995, 2001, 2002), Part VI, “How to Identify the Type of Significance of a Property,” Criterion A: Event, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm#crit%20a, last accessed June 14, 2018.

⁴ “How to Apply the National Register Criteria for Evaluation,” Part VI, Criterion C: Design/Construction, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm#crit%20c, last accessed June 14, 2018.

⁵ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 45-46.

lands adjacent to the proposed historic district. The development touted as the result of the canal reads as minimal for the identified 1904-1937 period of significance. While there were settlers, only “a minority along the canal in the district...became long-term, successful farmers”; “Most settlers supplemented the farm income by holding other occupations, because productivity of the land was marginal,” and “Others were not successful farming the rocky, volcanic soil in the high desert, with its short growing season and harsh winters, and sold their land.” Additional land was “lost through COID, tax or mortgage foreclosures, often in the 1920s and 1930s,” within the period of significance identified by the nomination.

The body of the nomination, moreover, points out that much of the land on either side of the canal was either transformed into residential developments or brought into agricultural production well after 1937 – outside the nomination’s proposed period of significance, and unconnected to the Carey Act history that the canal and its contributing features allegedly exemplifies. According to the nomination, “[m]any of the lots in various phases of the Dobbin Acres subdivision on the northern side of the canal,” in the western quarter of the proposed historic district, “were platted since 1972.” “South of the centerline of the canal on the western third of the district” are lots within the “Arrowhead Acres subdivision, originally platted in 1966.” A 121-acre ranch, the establishment date not given in the nomination, was subdivided into the “Somerset subdivision” in 1976. The eastern three-quarters of the proposed historic district are ranches and large parcels, but three “non-historic houses look out onto the canal in the rural area.” The nomination also notes that much of the land within the eastern two-thirds of the proposed historic district “was settled between 1910 and 1937,” but “none of the original 40-acre parcels were completely cleared or cultivated due to surface rock, rock outcroppings, and lack of water rights.” The nomination sees this as evidence of the retention of the “historic appearance and setting” of undeveloped parcels, when this is in fact evidence of the lack of development which undercuts the nomination’s Criterion A argument for historical significance. The fact that western third of the proposed historic district “was divided into rural residential homesites and hobby farms after 1965” only further weakens the argument.⁶

With regard to historic integrity, the Segment Nomination advances a number of seemingly inaccurate or misleading claims about the 13 “contributing elements” it identifies for the proposed historic district. Integrity, per National Register guidance, “is the ability of a property to convey its significance.” While the “evaluation of integrity is sometimes a subjective judgment...it must always be grounded in an understanding of a property’s physical features and how they relate to significance.” This same guidance identifies seven aspects of integrity – location, design, setting, materials, workmanship, feeling, and association – that must be considered by evaluators of historic properties, and for which an eligible property “will always possess several, and usually most...”⁷ Fundamentally, a historic property or a contributing element of a property must date to, and reflect, its purported period of significance in order to possess historic integrity. In every case, the Segment Nomination dates the 13 elements of the proposed historic district to the period of significance – i.e., 1904 to 1937. Field surveys of COC made by ICF in 2014 that informed the *Carey and Reclamation* MPD (a document discussed in greater detail below)

⁶ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 12-13.

⁷ “How to Apply the National Register Criteria for Evaluation,” Part VIII, How to Evaluate the Integrity of a Property, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_8.htm, last accessed June 14, 2018.

identified more recent, post-1937 construction dates for nearly all of these elements, and JRP’s December 2017 field observations were consistent with ICF’s survey findings.

Table 1 offers a comparative analysis of the 13 contributing structures identified in the Segment Nomination, along with the ICF and JRP survey conclusions. ICF’s survey of the entire COID system was conducted over the course of several months and drew upon construction, operation, and maintenance data available from COID as well as historical research. As indicated in the table, ICF did not identify the same elements of the Ward Road-Gosney Road COC segment as significant or contributing. The “corrugated pipe,” the “Bear Creek Ranch Bridge,” and the “wooden flume remains” were not considered part of the COID system, and ICF’s survey did not differentiate “Headgate 12” and “Headgate 13.” Of the remaining elements within the proposed historic district, other than COC itself, ICF dated all to outside the nomination’s period of significance and, therefore, as “non-contributing elements.”⁸

JRP made a visual inspection of all the contributing and non-contributing structures identified in the Segment Nomination – except for the wooden flume remains, which could not be located (possibly due to ice in the canal at the time of inspection). In the case of the Ward Road-Gosney Road canal segment itself, JRP conducted a field visit and agrees with the dates of construction given in the ICF survey and the Segment Nomination. Yet, for every other structure, JRP’s field inspection conclusions were consistent with the ICF evaluations, and not the Segment Nomination.

For the eight “historic contributing headgates to ditches,” for instance, the nomination asserts “that [they] were installed during the period of significance” because the ditches – not the headgates – appear on historic maps. ICF, by contrast, offers specific date ranges based on more intensive research not limited to the analysis of historical maps, and JRP’s physical examination of these structures indicates construction consistent with the ICF dates. No citations to these historic maps, moreover, are given in the body of the nomination, and there is no discussion of the evidence that would lead to the conclusion that the present headgates date to the period of significance. The nomination does note that the two headgates for the “historic ‘B’ and ‘C’ Laterals are attached to circa 1960, poured-in-place, board formed, concrete headwalls that that replaced wooden headwalls.” JRP’s own inspection confirms this characterization of the physical condition of the present B and C lateral headgates. In fact, as noted in **Table 1**, ICF dated the B Lateral headgate (identified as “B Lateral 1: Headgate”) to the 1960s. The Segment Nomination’s characterization, if not an inadvertent admission of the likely date of the structure, is indicative of an alteration to the headgate structure itself. This raises the question of the historic integrity

⁸“Deschutes County, Central Oregon Irrigation District (COID), RLS 2014,” City: Bend, County: Deschutes, Survey Type: Standard RLS, Survey Sponsor: Central Oregon irrigation District, 1055 Southeast Lake Avenue, Redmond, OR 97756, (541) 548-6047, Surveyor Name: Christopher Hetzel, ICF International 210 2nd Avenue, Suite 550, Seattle, WA, (206) 80-2817, Survey Start Date: 2/24/2014, Survey End Date: 4/4/2014, Year Completed: 2014, Date Submitted to SHPO: 1/14/2015, # Elig. properties: 830, # Ineligible properties: 4190, Acreage Surveyed: 44800 (approx.)

http://www.oregon.gov/oprd/HCD/NATREG/docs/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978/COID_Survey_Complete.pdf, last accessed March 6, 2018.

TABLE 1. COMPARATIVE ANALYSIS OF IDENTIFIED CONTRIBUTING STRUCTURES

| <i>Element Name or Description</i> | | <i>Construction Date and Conclusion</i> | | | <i>JRP Field Survey Observations and Conclusions</i> | |
|--|--|---|--|--|---|--|
| Segment Nomination* | ICF Survey | Segment Nomination | ICF Survey | Conclusions Differ | | |
| "Canal with associated embankments on either side and the ditch rider road on north side." | Central Oregon Canal | 1905, enlarged in 1907 and 1914; Contributing | ca. 1907 / 1904-1907; Contributing | | ICF Survey examined COC as a whole and did not parse out the dating of every segment of canal. JRP field survey suggests that the Ward Road-Gosney Road segment was likely constructed in the early 1900s, as indicated in both the ICF Survey and Segment Nomination. | |
| "Corrugated pipe across canal on mortared rock piers" | Not identified as part of COID | 1917-1921; Contributing | Not identified as part of COID | X | ICF Survey did not recognize these elements as part of the COID system. JRP field survey concurred. Additionally, JRP's visual inspection did not agree with the construction dates given in the Segment Nomination and raised questions as to the historic integrity of these elements. | |
| "Bear Creek Ranch Bridge on concrete piers" | Not identified as part of COID | ca. 1928; Contributing | Not identified as part of COID | X | | |
| "Burt Chute and Stilling Pond" | Central Oregon Canal: Chute | 1905-1911; Contributing | ca. 1945 / 1940-1949; Contributing | | JRP field survey concurred with ICF Survey construction date assessment and evaluation conclusions. | |
| "Wooden Flume Remains" | Not identified as part of COID | ca. 1911; Contributing | Not identified as part of COID | X | ICF Survey did not recognize this element as part of the COID system. JRP field survey could not locate these remains, possibly due to ice in the canal. This fact, together with the characterization of the element in the Segment Nomination, raises questions as to the historic integrity of this element. | |
| Headgate 1 (labeled COC 8) | Central Oregon Canal, Lateral COC 8: Headgate | "during the period of significance"; Contributing | ca. 1965 / 1960-1968; Non-Contributing | X | JRP field survey concurred with ICF Survey construction date assessments for these elements and evaluation conclusions. | |
| Headgate 2 (labeled COC 9) | Central Oregon Canal, Lateral COC 10: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | | |
| Headgate 3 (labeled COC 10) | Central Oregon Canal, Lateral COC 10-1: Headgate | | ca. 2000 / 1990-2014; Non-Contributing | X | | |
| Headgate 5 (labeled COC 12) | Central Oregon Canal, Lateral COC 12 1: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | | |
| Headgate 6 (associated crude concrete weir over rocks, labeled COC 13) | Central Oregon Canal, Lateral COC 13 1: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | | |
| Headgate 7 (labeled "B" Lateral) | Central Oregon Canal, B Lateral 1: Headgate | | ca. 1965 / 1960-1968; Non-Contributing | X | | |
| Headgate 12 (associated crude concrete and metal weir, labeled "C" Lateral) | Central Oregon Canal, C Lateral: Headgate | | | ca. 1980 / 1970-1989; Non-Contributing | X | ICF Survey did not treat these headgates as separate elements. JRP field survey concurred with ICF Survey construction date assessment and evaluation conclusions. |
| Headgate 13 (shares headwall with Headgate 12, labeled COC 15) | | | | | | |

* The Segment Nomination also listed 11 non-contributing structures not shown here. Among these was one structure, "Headgate 4," that the ICF reconnaissance survey identified as contributing; JRP concurred with this assessment.

not only of these particular headgates, but also the others whose physical appearance in JRP's inspection is more suggestive of ICF's dating.⁹

In a similarly dubious fashion, using "a 1911 map of the irrigation system drawn by the State Engineer," and a statement by one-time resident Richard Torkelson that he used to fish in the canal in the 1940s, the nomination dates Burt Chute, "a poured concrete structure," and its associated pond to "1905-1911." While some form of the chute may have existed by about 1911, the nomination fails to address if the chute was changed over time, if the concrete replaced an earlier wooden structure, if the concrete was repaired at some point, or if the chute's dimensions were altered. Each of these bares upon the historic integrity of the structure, and if it was unchanged, the nomination should endeavor to offer some evidence. JRP's field observation, by contrast, indicates that ICF's assessment that the existing chute was constructed in the 1940s – outside the period of significance given in the Segment Nomination – is likely more accurate.¹⁰

Potential issues with integrity and historic association also exist with the Bear Creek Ranch Bridge. The nomination alleges that the bridge was originally constructed "around 1928 by the property owner, Mike Dragosavac, and neighbors, including Dragan Mirich." This bridge was thus not constructed in conjunction with the original design of the canal or canal system, but separately and more than 20 years later. It is not directly associated with the design of the COC or COID, which raises the question as to why it is included in the nomination as an element of the canal segment at all. The nomination maintains that the bridge was built as a consequence of that canal. Yet, by that logic, any and all historical buildings erected in the vicinity of the canal between 1904 and 1937, and with sufficient integrity, would be included in that same district. Additionally, no documentation is offered for the bridge's date; the sole citation is to an "Interview with "Gary and Suzanne Grund," the current property owners.

Even if the bridge was directly connected to the canal's construction, dated to the period of the significance, and embodied the overall significance of this canal segment, issues with the structure's integrity nevertheless remain. The nomination goes on to note that the Grunds "replaced 43 of the original 57 rotting 4" x 12" fir decking planks with pressure treated lumber, in kind," and used "bolts" to affix this new planking. At some unspecified point in time, the nomination states two additional steel "I" beams were installed along with a "non-historic 1' diameter white plastic water pipe...suspended from brackets along the western edge of the bridge, giving the bridge a false wavy appearance." JRP's field survey confirmed this description of the present structure, which given the condition of its lumber, its steel supports, and the appended water pipe, is not evocative of a structure from the late 1920s as the nomination asserts. The "in kind" replacement of lumber notwithstanding – itself problematic because the nomination has not established the type of wood or its condition, circa 1928 – alterations in materials and workmanship have diminished both integrity of the bridge and association that it might have had (if any) to a canal that dates back to the early 1900s.¹¹

More troubling is the nomination's contention that a "series of deteriorating lumber, partially buried in year-round standing water and silt" piers that once "formed part of a wooden flume that bridged the lowest point in the canal in the historic district" is a contributing element of the proposed historic district. These pier remnants

⁹ "Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)," 26-28.

¹⁰ "Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)," 22.

¹¹ "Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)," 21.

represent the last visible traces of a former structure that has completely lost integrity and can no longer contribute to the historic COC property. The ICF survey did not note the existence of these piers, nor was JRP able to locate them during its field survey. The nomination offers photographic evidence of “six rows of seven piers.” These remnant structures, through uncited map evidence and cited interviews with COID ditch riders Jim Hollander and Robert Stephen, are dated to 1905 as the wooden flume purportedly was built at the same time as this segment of COC. A wooden flume may very well have existed at the point in the canal claimed by the nomination. However, such a structure is no longer in this place, and the piers themselves are – as noted by the nomination itself – difficult to see. These features do not retain the required aspects of integrity necessary to be considered contributing elements of either the segment, or the larger COC.¹²

The Implications of Prior Determination of Eligibility for the Central Oregon Canal

In addition to its internal deficiencies, the Segment Nomination fails to recognize that COC has long been recognized for its historic significance and potential for listing in the National Register, which makes questionable the necessity of the Segment Nomination itself. Entries in the Oregon Historic Sites Database, a publicly-available online database maintained by SHPO, show that as far back as the early 1990s the entirety of COC was previously determined eligible.¹³ In June 1991, Oregon Department of Transportation (ODOT) prepared a Request for Determination of Eligibility (DOE) for COC, under the historic name “Deschutes Irrigation and Power Company Canal” in conjunction with “Bend Parkway project.”¹⁴ Per federal regulations, a DOE “is a decision by the Department of the Interior that a district, site, building, structure or object meets the National Register criteria for evaluation although the property is not formally listed in the National Register.” Although properties determined eligible are not entitled to “such benefits as grants, loans, or tax incentives that have listing on the National Register as prerequisite” (36 CFR 60.3), Section 106 of the 1966 National Historic Preservation Act and its implementing regulations define “historic properties” as those not only listed in the National Register, but also those determined eligible for listing in the National Register, or eligible for listing in the National Register (36 CFR 800.16).

After ODOT made its request for a DOE, ODOT treated COC as an eligible property in the context of its Bend Parkway project. In May 1998, the agency prepared and submitted an Historic American Engineering Record (HAER), “Deschutes Irrigation and Power Company Canal (Central Oregon Irrigation Canal),” to the National Park Service. HAERs are often prepared to mitigate for adverse effects to “historic properties” affected by of “Federal undertakings” (such as federally-funded projects or federally-administered grants). Thus, in documenting the Deschutes Irrigation and Power Company Canal “located within the Bend Parkway project area,” “a section of the

¹² “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 23.

¹³ Oregon Parks & Recreation Department, Oregon Heritage, State Historic Preservation Office, “Oregon Historic Site Database,” <http://heritagedata.prd.state.or.us/historic/>, last accessed June 14, 2018.

¹⁴ [Oregon] State Parks and Recreation Department, Cultural Property Inventory and Request for a Determination of Eligibility, Historic Name: Deschutes Irrigation and Power (D.I.P.) Company Canal, Common Name: Central Oregon Irrigation (C.O.I.) Canal, Form Prepared By: Dwight A. Smith, Cultural Resources Specialist, Agency: Oregon Department of Transportation, Date: June 1991.

resource...[that] appears representative of the resource,” this HAER suggests that COC had been determined eligible by that time.¹⁵

The ODOT studies may have contributed to a decision to make a formal study of the canal eight years later, when COID secured a water conservation grant from the US Bureau of Reclamation (USBR). This federal grant, much like the Bend Parkway work by ODOT in the 1990s, prompted an effort to determine COC eligibility for project compliance with Section 106 of the NHPA. In 2006, Paul G. Claeysens and Jan Tomlinson prepared “Determination of National Register of Historic Places Eligibility for Historic Agricultural Resources in Central Oregon: Central Oregon Irrigation District” (also known as “Historic Agricultural Resources in Central Oregon”). The disposition of this report is unknown, and whether SHPO provided concurrence. A copy was not available through the SHPO’s Oregon Historic Sites Database, and JRP only found references to it in other public-available documents on the SHPO website.¹⁶

USBR issuance of a WaterSMART grant to COID for monies to pipe the COC I-Lateral in 2012 finally brought clarity to the situation. Pursuant to the Section 106 process, the federal agency:

...consulted with the State Historic Preservation Office (SHPO), resulting in the finding that the [COID] system is historically significant, and that the piping project would adversely affect it. This effect would be compounded by planned future piping efforts anticipated to effectively replace the open system with a piped system.

This finding, made in consultation with SHPO, that the COID system – inclusive of COC, and therefore also the segment of COC between Ward Road and Gosney Road – had the same effect as a National Register listing of COID and COC for the purposes of Section 106. As a result, USBR concluded that the district piping project would adversely affect the canal and thus mitigation was necessary to address those effects, and in February 2014, USBR, SHPO, and COID executed a Memorandum of Agreement to stipulate the specific treatments. Among the mitigation measures adopted was the preparation of a National Register multiple property document (MPD) that used COID and Vale Irrigation District (Vale ID) as a basis for determining and nominating *other* eligible districts – and not additional districts within either COID or Vale ID, as both of these were recognized as already eligible. In October 2016, eight months before the Segment Nomination was first completed and submitted to SHPO, Christopher Hetzel, Senior Architectural Historian, ICF International (ICF), finalized the *Carey and Reclamation* MPD as part of the agreed-upon mitigation for the federally-funded piping project.¹⁷

¹⁵ Historic American Engineering Record, “Deschutes Irrigation and Power Company Canal (Central Oregon Irrigation Canal),” HAER No. OR-63, Report Prepared by: Oregon Department of Transportation, Date: May 26, 1998; and National Park Service, “Historic American Engineering Record, Guidelines for Historical Reports” (2008, updated December 2017), 1, available from <https://www.nps.gov/hdp/standards/HAER/HAERHistoryGuidelines.pdf>, last accessed June 14, 2018.

¹⁶ The Claeysens and Tomlinson report is referenced in the February 2014 Memorandum of Agreement among the USBR, SHPO, and COID, and COID’s July 2017 NRHP nomination of the canal’s Brasada Ranch Segment. The MOA and the nomination may be downloaded from the website, Oregon Parks & Recreation Department: Oregon Heritage: National Register, “Carey and Reclamation Acts Irrigation Projects in Oregon 1901-1978,” <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978.aspx>, last accessed June 14, 2018.

¹⁷ Oregon Parks & Recreation Department: Oregon Heritage: National Register, “Carey and Reclamation Acts Irrigation Projects in Oregon 1901-1978,”

The Segment Nomination is silent on this history of COC’s previous National Register eligibility. While the nomination is not required to offer this background, the absence of recognition evidences a lack of professional due diligence, misleads the uninformed reader, and conveys a false sense of the importance of listing the Ward Road-Gosney Road segment. The Segment Nomination proposes that a portion of an already determined eligible – and now National Register listed – historic property should be listed again. This proposal is unnecessary because COC and COID are already recognized as historic properties, with extensive previous documentation.

[The Critical Importance of the *Carey and Reclamation* MPD](#)

The *Carey and Reclamation* MPD referenced above is critically important to the evaluation of COC – yet the Segment Nomination attempts to stand apart from it, contrary to both federal and state cultural resources guidance documentation. An MPD is an essential “management tool” for historic preservation; it is intended to facilitate the evaluation of other historic properties of a similar type or nature, or within a specific geographical area. According to National Register *Bulletin 16*, “How to Complete the National Register Multiple Property Documentation Form,”

The Multiple Property Documentation Form streamlines the method of organizing information collected in surveys and research for registration and preservation planning purposes. The form facilitates the evaluation of individual properties by comparing them with resources that share similar physical characteristics and historical associations. Information common to the group of properties is presented in the Multiple Documentation Form, while information specific to each individual building, site, district, structure, or object is placed on an individual registration form. As a management tool, the thematic approach can furnish essential information for historic preservation planning because it evaluates properties on a comparative basis within a given geographical area and because it can be used to establish preservation priorities based on historical significance.

An MPD is usually “not a nomination in its own right, but serves as a basis for evaluating the National Register eligibility of related properties,” and

...may be used to nominate and register thematically-related historic properties simultaneously or to establish the registration requirements for properties that may be nominated in the future...The name of the thematic group, denoting the historical framework of nominated properties, is the **multiple property listing** [emphasis in original].

Properties nominated through a multiple property listing bear the same burden as those properties nominated independently: they must possess both historical significance and physical integrity to the time period of that significance, in addition to meeting the registration requirements presented in the MPD. The only difference is that properties nominated through a multiple property listing rely upon an MPD for the historic context to

<http://www.oregon.gov/oprd/HCD/NATREG/Pages/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978.aspx>, last accessed June 14, 2018; and Memorandum of Agreement No. R14MA13733 Among the US Bureau of Reclamation, the Oregon State Historic Preservation Office and Central Oregon Irrigation District, for Piping of a Segment of the I-Lateral, Alfalfa Vicinity, Deschutes County, Oregon, executed in February 2014, section 3.B.2(a), page 4, available at:

http://www.oregon.gov/oprd/HCD/NATREG/docs/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20in%20Oregon%201901-1978/12_0948.pdf, last accessed June 14, 2018.

evaluate that significance within one or more of the four “National Register Criteria for Evaluation,” and utilize the standards for the integrity of properties given in the MPD to determine eligibility.¹⁸

The *Carey and Reclamation* MPD, as noted above, took the Central Oregon Project, a Carey Act project, “privately owned and operated by the Central Oregon Irrigation District,” and the Vale Project, a federal reclamation project, “operated and maintained by Vale Irrigation District” as case studies. Closely examining the histories of these two projects, the MPD addressed “the development of agricultural irrigation by the United States government within the geographic context of the central and eastern portions of the State of Oregon” and “provide[d] a framework for the identification and evaluation of extant irrigation system in these areas, pursuant to National Register eligibility criteria.”¹⁹

As part of the research necessary for preparation of the *Carey and Reclamation* MPD, ICF made “reconnaissance-level historic resources surveys” of both the COID and Vale ID systems in 2014. This effort entailed “background research and collecting data/information” about the districts, as well as “an on-the-ground reconnaissance-level survey of each irrigation system and its features,” and “creation of geographic information system (GIS)-based maps and data.” The COID portion of the survey was completed in January 2015. This survey data “was used to evaluate the integrity of the irrigation systems’ individual components, identify eligible and non-eligible contributing features, and provide the basis for” for both the MPD’s historical context and its discussion of the standards of significance and integrity of various property types within such irrigation systems. As a result, SHPO and USBR agreed:

These two inventoried systems are sufficient to establish characteristic elements and historical trends of both historic contexts identified in this MPD... Because these two projects (Central Oregon Project and Vale Project) served as case studies to inform the development of the contexts and physical characteristics of these two types of irrigation conveyance systems, as well as providing illustrative examples of the historical patterns of development and the resulting structural representations of those contexts, they are not subject to the registration requirement that an irrigation project have a corresponding project-specific historic context, appended to this MPD.²⁰

The *Carey and Reclamation* MPD was first submitted to the Oregon State Advisory Committee on Historic Preservation (SACHP) in June 2016. Following completion of the committee’s recommended revisions in October 2016, the MPD was accepted in February 2017 “on the condition that the SHPO and BoR [USBR] consult to address BoR concerns.” Those concerns addressed, the MPD received SHPO concurrence in May 2017, and was accepted

¹⁸ US Department of the Interior, National Park Service, “How to Complete the National Register Multiple Property Documentation Form,” by Antoinette J. Lee and Linda F. McClelland, *National Register Bulletin 16* (Revised 1999, originally Published 1991), Section II: Introduction,

https://www.nps.gov/nr/publications/bulletins/nrb16b/nrb16b_llintroduction.htm, last accessed February 15, 2018.

¹⁹ United States Department of the Interior, National Park Service, National Register of Historic Places Multiple Property Documentation Form, *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, prepared by Christopher Hetzel, Sr. Architectural Historian, ICF International, date 10/31/2016, Oregon State Historic Preservation Office certification 5/20/2017, National Register of Historic Places, Date Listed 7-10-17, NRIS No. MC10001302, Oregon SHPO, E-2 and H-67 available at the following link and last accessed June 14, 2018,

<http://www.oregon.gov/oprd/HCD/NATREG/docs/Carey%20and%20Reclamation%20Acts%20Irrigation%20Projects%20%20in%20Oregon%201901-1978/CareyAndReclamationActsIrrigationProjectsInOregon1901-1978.pdf>, [hereafter *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, page].

²⁰ *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, H-67, H-69, and F-32 – F-33.

by the Keeper of the National Register in July 2017 – just a few weeks following the first submission of the Segment Nomination.²¹

The first page of the Segment Nomination indicates that the proposed historic district “is not part of a multiple property listing.” This is only technically correct as the *Carey and Reclamation* MPD was not “listed” in the National Register when the Segment Nomination was first completed in June 2017. However, both the MPD and the 2014 ICF survey that informed its findings have been available online from SHPO since December 2016, almost a year before the resubmission of the Segment Nomination in November 2017. Other than a brief citation to an earlier draft of the MPD (footnote 397, on page 107), the Segment Nomination makes no note of the listed *Carey and Reclamation* MPD and does not apply any of its context or registration requirements. Given NPS guidance for use of MPDs then, why was the Segment Nomination not advanced as part of a multiple property listing? Why does the nomination ignore this important “management tool”?²²

The nomination also appears to eschew existing SHPO guidance that likewise stresses the importance of consulting MPDs and making use of their historic contexts and registration requirements. SHPO’s December 2013 *Guidance for Recording and Evaluating Linear Cultural Resources*, “long, narrow individual structures” such as “canals, irrigation and mining ditches,” was intended “to assist the preparers of determinations of eligibility by illustrating key considerations, approaches, and significance elements for each type [of linear feature].” Among other directives, this guidance calls upon “researchers,” “[a]s part of the literature review” to:

investigate whether or not a Multiple Property Document exists that may pertain to the resource type. Such documents establish what types of resources are covered by its provisions, and typically establish general and specific registration requirements that establish in detail the integrity and criterion standards required for eligibility for listing in the NRHP.²³

Once more, one is left to wonder why the Segment Nomination fails to follow clear guidance intended to serve the broader public interest in historic preservation. That the nomination does not do so, does not address in some form the *Carey and Reclamation* MPD – whether to advance the proposed historic district as part of a multiple property listing, under the cover of the MPD, or to argue against the MPD’s findings – is a critical oversight, or a disingenuous omission. The historical significance of the segment (if any individual significance could be attributed to the segment) and its integrity can only be appreciated within the context of the historical significance and integrity of the entire COID system, which the MPD provides and the Segment Nomination does not.²⁴

Little Historical Value to the Public

The strained arguments for historical significance and integrity, the lack of recognition of prior determinations of eligibility for the COC and the larger COID system, and the failure to address the *Carey and Reclamation* MPD per

²¹ *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978*, 1.

²² “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment)”, page 1. [The earlier draft of the MPD cited in the Segment Nomination is, “Draft National Register of Historic Places Multiple Property Documentation Form, Irrigation Projects in Oregon, 1850-1964,” January 12, 2015.]

²³ Oregon Parks and Recreation Department, Oregon State Historic Preservation Office, *Guidance for Recording and Evaluating Linear Cultural Resources* (December 2013), 6.

²⁴ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 1, 45, and 106-111.

federal and state guidance, all undermine the persuasiveness of the Segment Nomination. Collectively, these deficiencies prevent the nomination from articulating effectively a reason (or, reasons) for listing the proposed Ward Road-Gosney Road segment as a historic district. While the Segment Nomination attempts to justify its purpose on the questionable basis that this particular COC segment is distinctively representative of a historically significant Carey Act project, it does not support its own claim. Ultimately, there appears to be little historical value to the public in listing this segment of canal – and a correspondingly large management challenge, should it be listed.

The Segment Nomination, in its closing, attempts to justify the proposed historic district boundaries and compares the COC and the Central Oregon Project to other public and irrigation ventures. It even compares the proposed historic district to another COC segment that has since been determined eligible for listing in the National Register. The boundaries of the proposed district, the Segment Nomination explains, were “selected [to] include a stretch of canal that is long enough to include the various slopes and flat terrain that the canal passes through during its 47 mile-length,” and “the typical elements of an irrigation system: the historic canal, two laterals, one sub-lateral, headwalls, catwalks, flumes, embankments and many ditches.”²⁵ The nomination further argues the proposed historic district is emblematic of the development that the entire canal brought to Central Oregon “The historic district,” it insists, “uniquely demonstrates the power of the canal and irrigation water to attract settlers, and the progression of settlement from large to smaller parcels over the past 100 years.” The argument continues, claiming that no other public or private irrigation structure – including those now operated by Arnold Irrigation District, Tumalo Irrigation District, and Swalley Irrigation District – were “of the size and scale of the Central Oregon canal and none had the financial impact on development of the high plateau.” “The Central Oregon Project,” the Segment Nomination maintains, “was the largest, most expensive, most profitable and most successful private irrigation development project under the Carey Act in the region.” The proposed historic district, so the argument claims, “is an exemplary 3.4-mile-long living stretch of the historic canal with very few alterations and many intriguing components.”²⁶

Given the numerous issues with the Segment Nomination discussed above, none of the points advanced by the nomination demonstrate that this particular segment of the COC is somehow individually historically important and distinct from the already determined eligible canal of which it is part. The nomination ignores both the longstanding recognition that the entire COC is historically significant, and that the *Carey and Reclamation* MPD and COID 2014 survey identified the COC as a contributing (eligible) component of the COID system. What then, the reader is left to wonder, is the point to listing this particular segment? What is separately, historically unique about this segment that it would merit listing? Neither of these questions are answered in the nomination. Appeals to the character of the nominated canal segment similarly falter in the face of several inconsistencies and deficiencies in the arguments for historical significance and historical integrity of contributing elements presented in the nomination, all addressed above.

Listing in the National Register is a public declaration that a property is historically significant and possessive of sufficient historical integrity to display that significance, and thus is worthy of preservation. Listing also creates a management responsibility. The Ward Road-Gosney Road canal segment, as it is, is neither historically significant

²⁵ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 125.

²⁶ “Central Oregon Canal Historic District (Ward Road-Gosney Road Segment),” 105-110.

nor possessive of sufficient historical integrity to merit listing. Moreover, COID already bears the burden for the appropriate treatment of the larger historically-significant Central Oregon Canal. Should the Segment Nomination receive SHPO concurrence and be accepted by the Keeper, however, both SHPO and COID would face management issues caused because the Central Oregon Canal would be listed twice: once as a canal segment, and another for its entire 47-mile length. This specific segment would have a different period of significance than the rest of the COC, and there would be SHPO concurrence with two different sets of contradictory contributing elements because most in the Ward Road to Gosney Road segment were actually identified as non-contributing elements by the 2014 ICF survey. Laying aside the dubious historical value to the public of a double – and truly, conflicting – listing of the same property, the potential to hamper successful management of the historic property is very high in these circumstances. Far from creating certainty about what properties rightly ought to be preserved, it would perpetuate an uncertainty among members of the public that would be borne by both COID and SHPO.

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- Senior Historian I and II, 2014-Present
- Staff Historian I, II, and III, 2006-2014

Member, American Historical Association (Pacific Coast Branch), 1999-Present

Member, American Society for Environmental History, 2006-Present

Member, National Council of Public History, 2006-Present

Chair, City of Davis Historical Resources Management Commission, 2017-2018 (Commissioner since 2012)

Meets and exceeds United States Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61) under History and Architectural History

EXPERT WITNESS DEPOSITION AND TESTIMONY

Matt Pear and Mark Pear, Plaintiffs, vs. City and County of San Francisco, a municipal corporation, Does, 1-50, inclusive, Case No. 112CV227801, Superior Court of the State of California, County of Santa Clara. Expert witness testimony concerning a family's historical use of parcel. and urban/suburban/industrial development of Santa Clara County in the 1950s as it related to the Hetch Hetchy Aqueduct Right of Way. San Francisco: City and County of San Francisco, City Attorney's Office, San Francisco Public Utilities Commission, 2017.

In Re the General Adjudication of All Rights to Use Water in the Gila River System and Source. Civil Nos. W-1, W-2, W-3, and W-4, Contested Case No. W-1-11-605, Maricopa County Superior Court, State of

Arizona. Expert historian report, and expert witness deposition and trial testimony concerning the history of Fort Huachuca, Arizona, its changing missions, population, and water use, for the purposes of a federal reserved water right claim. Washington, DC and Denver: United States Department of Justice, 2012 – 2016.

Modesto Irrigation District vs. Heather Robinson Tanaka, et al. Case No. 34-2011-00112886, Superior Court of the State of California, County of Sacramento. Expert witness deposition and trial testimony concerning the riparian status of a parcel in San Joaquin County and the historical land and water uses on that parcel. Sacramento: O’Laughlin & Paris LLP for Modesto Irrigation District, 2014 – 2015.

HISTORICAL RESEARCH AND CONSULTING SERVICES EXPERIENCE

Historical Research of Military Operations at McClellan United States Air Force Base, Sacramento, CA, concerning use of chromium and chromium products, 2018 – Present.

Peer Review of National Register Nomination of Central Oregon Canal (Ward Road-Gosney Road Segment) Historic District. Bend, OR: Central Oregon Irrigation District, 2017 – Present.

Riparian and Pre-1914 Water Rights Investigation for Agricultural Parcels in Merced County, CA, 2017 – Present.

Riparian and Pre-1914 Water Rights Investigation for Agricultural Lands in the Kings River Basin, Fresno County, CA, 2017 – Present.

Historical Research of Native American / Federal Reserved Water Rights Claims. Humboldt County, 2017 – Present.

Historical Research of Water Rights for a Parcel in Stanislaus County. Sacramento: O’Laughlin & Paris, LLP, 2017 – Present.

Historical Research on Dams and Flood Control Operations on the Boise River. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2015 – Present.

Research Related to the History of an Interstate Compact. Sacramento: Somach Simmons & Dunn, 2012 – Present.

In Re the General Adjudication of Rights to the Use of Water from the Coeur d’Alene-Spokane River Basin Water System. District Court of the Fifth Judicial District of the State of Idaho, Twin Falls, ID. Assisted in the research, data management, and preparation of an expert report regarding water rights claims made in the general adjudication of water rights in the Coeur d’Alene-Spokane River Basin, Idaho. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2010 – Present.

Potentially Responsible Parties (CERCLA) Title Research for a Parcel in Tulare County. Rancho Cordova: Geocon Consultants, Inc., 2017.

Historical Research of Water Rights acquired by the City of Santa Cruz. Santa Cruz: Atchison, Barisone, Condotti & Kovacevich, 2016 – 2017.

In Re the General Adjudication of Rights to the Use of Water from the Snake River Drainage Basin Water System, State of Idaho v. United States; State of Idaho; and all unknown claimants to the use of water from the Snake River Drainage Basin Water System, District Court of the Fifth Judicial District of the State of Idaho, Twin Falls, ID. Assisted in the research, data management, and preparation of several expert and consultant reports related to Idaho state water rights from statehood to the present of the more than 158,000 water claimants in the Snake River Drainage Basin, Idaho. These studies involved reservoir storage rights, appropriative water claims, groundwater use, submerged lands, hydro-electric power generation, municipal water uses, federal reserved water rights for military, forest, and Indian reservations, tribal water claims, and legislative histories. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2006 – 2016.

Historical Research Concerning Reclamation District Assessments in Colusa County. Sacramento: Somach Simmons & Dunn, 2016.

Gallo Cattle Company v. Lincoln White Crane Hunter Farms; Merced Irrigation District, et. al. Case No. CV00105, Superior Court, State of California, County of Merced. Assisted in the collection of historical documentation in support of an expert witness deposition and planned testimony regarding Crocker Huffman Land and Water Company history, development of its irrigation and drainage system (later acquired by MID), and the background of a 1918 agreement to flow water from Merced County Drainage District (later acquired by MID) to a private landowner. Walnut Creek: Miller Starr Regalia; and San Francisco: Duane Morris, LLP, 2013-2014.

Cortopassi Partners v. California Department of Water Resources, et al. Case No. CV034843, Superior Court, State of California, County of San Joaquin. Assisted in the collection of historical documentation in support of an expert witness deposition and planned testimony concerning public and private dredging on the Mokelumne River. Sacramento: California Department of Justice, 2012-2013.

Research regarding Pre-1914 Water Rights of Woods Irrigation Company, San Joaquin County, CA. Sacramento: State Water Contractors and San Luis and Delta-Mendota Water Authority, 2015 – 2016.

Riparian Water Rights Investigation for Agricultural and Wetlands in the Cosumnes River watershed, Sacramento County, CA. Sacramento: Sacramento County Counsel, 2015-2016.

Riparian and Pre-1914 Water Rights Investigation for Agricultural Lands in the Salinas River Basin, Monterey County, CA, 2015-2016.

Riparian and Pre-1914 Water Rights Investigation for agricultural lands adjacent to the Sacramento River, Yolo County, CA, 2015-2016.

Historical Research and Analysis of the Construction of Cline Falls Dam and Power Plant on Deschutes River, Oregon. Bend: Holland & Knight, LLP, 2015.

Historical Research of Shipbuilding Operations at Swan Island Shipyards, Port of Portland, Oregon. San Francisco: Bassi, Edlin, Huie and Blum, 2015.

Historical Research of Land Uses and Development of property west of Hunters Point, San Francisco. San Francisco: Bassi, Edlin, Huie and Blum, 2015.

- Report on Riparian and Pre-1914 Appropriative Water Right Claims on Three Parcels in eastern Contra Costa County, CA. Oakland: East Bay Municipal Utility District, 2014.
- Research Regarding Historical Background of Groundwater Pumping and Litigation in the 1950s among Orange County, Riverside, and San Bernardino Area Water interests in the Upper Santa Ana River Basin in Southern California. Redlands: Thomas McPeters, Esq., McPeters McAlearney Shimoff & Hatt, 2013-2015.
- Land Use History, Union Lumber Company and adjacent properties, Fort Bragg, CA. San Francisco: Bassi, Edlin, Huie and Blum, 2013-2014.
- Research on a Pre-1914 Appropriative Water Rights Claim for a Ranch in Merced County. Merced: Merced Irrigation District, 2013.
- Investigation of Historical Reclamation and Land Use of Union Island, San Joaquin Delta, CA. Sacramento: O'Laughlin & Paris LLP for Modesto Irrigation District; Kronick, Moskovitz, Tiedemann & Girard for State Water Contractors; and Diepenbrock Harrison for San Luis and Delta-Mendota Water Authority, 2011-2013.
- Research related to Water Storage, Diversion and Use by American Falls Reclamation District No. 2 for the *General Adjudication of Rights to the Use of Water from the Snake River Drainage Basin Water System, State of Idaho v. United States; State of Idaho; and all unknown claimants to the use of water from the Snake River Drainage Basin Water System*, Subcase No. 39576, District Court of the Fifth Judicial District of the State of Idaho, Twin Falls, ID. Boise: Natural Resources Division, Office of the Attorney General, State of Idaho, 2011.
- Historical Research regarding Operation of and Water Use at a Power Plant on Lytle Creek, San Bernardino County, CA for California Public Utilities Commission Hearings. Fontana: Fontana Water District, and Rosemead: San Gabriel Water District, 2011.
- East Bay Municipal Utilities District: Water Rights Investigation, San Joaquin, Amador, and Calaveras counties, CA. Oakland: East Bay Municipal Utilities District, 2011.
- Reclamation and Land Use History Investigation: Roberts Island, San Joaquin Delta, CA. Sacramento: O'Laughlin & Paris LLP for Modesto Irrigation District; Kronick, Moskovitz, Tiedemann & Girard for State Water Contractors; and Diepenbrock Harrison for San Luis and Delta-Mendota Water Authority, 2010-2014.
- Investigation of Historical Delineations of the Rialto Groundwater Basin, San Bernardino, CA. Redlands: Thomas McPeters, Esq., McPeters McAlearney Shimoff & Hatt, 2010-2013.
- Investigation of Historic Water Development at Two Well Sites: Chino Groundwater Basin. Rancho Cucamonga: Cucamonga Valley Water District, 2010-2012.
- Central Valley Flood Protection Plan (CVFPP): Programmatic Environmental Impact Report (PEIR), historic setting and resources sections, California. Sacramento: California Department of Water Resources, 2010–2012.
- Susan River Pre-1914 Water Rights Investigation, Lassen County. Chico: O'Laughlin & Paris LLP, 2010.
- Lower Lytle Creek Power Plant and Appurtenant Facilities: Construction and Water Use History. Redlands: Thomas McPeters, Esq., McPeters McAlearney Shimoff & Hatt, 2010.

- History of Groundwater Development and Use in Antelope Valley to Fulfill the Changing Military Missions of Edwards Air Force Base, Kern, San Bernardino and Los Angeles Counties, CA. Denver: US Department of Justice, 2009, 2012-2014.
- Due Diligence Research of Historical Land Uses, and Pre-1914 Appropriative and Riparian Water Rights associated with an 8,000-acre Historic Ranch in Madera County, CA. Rocklin: Law Offices of Matthew Emrick, 2009-2010.
- Legislative history of California's "Area of Origins" laws (County of Origin, Water Code Sections 10500-10506, and the Watershed Protection Statute, Water Code Sections 11460-11465). Stockton: Herum/Crabtree Attorneys, 2009-2010.
- History of Fontana Union Water Company's Lytle Creek Diversion on the San Bernardino National Forest. Fontana: Fontana Union Water Company; Rancho Cucamonga: Cucamonga Valley Water District; and Rosemead: San Gabriel Water District for submission to the Chief Counsel for Natural Resources, US Department of Agriculture, 2009.
- Sacramento River and San Joaquin River Levees: Research on history of construction, maintenance, repair, and performance, California. Sacramento: Kleinfelder, 2008-2012.
- History of Water Development on the Merced River for Irrigation, Mining, and Power Purposes Prior to the Organization of the Merced Irrigation District, 1860-1926. Merced: Merced Irrigation District, 2008-2012.
- San Nicolas Island Shipwrecks: Report related to all ships sunk within two miles along island, Ventura County, California. San Diego: Naval Facilities Engineering Command Southwest, 2008-2010.
- Oakdale Irrigation District Water Rights Investigation. Chico: O'Laughlin & Paris, 2008-2009.
- Historic Meandering of the River Bend Section of the Russian River, Sonoma County, CA. Sacramento: Lennihan Law, APC, 2008.
- Riparian Lands and Agricultural Land Uses Investigation for Major Reclaimed Islands in the southern San Joaquin Delta, San Joaquin County, CA. Chico: O'Laughlin & Paris LLP, 2007-2009.
- Delta Risk Management Strategy, Franks Tract Levee Research: Historical research into the original condition of levees around Franks Tract, and collection of aerial photographs showing how the levees deteriorated over time after the island flooded, Contra Costa County, California. Benjamin & Associates, 2007-2008.
- Pre-1914 Water Rights Investigation for Idyllwild Water District regarding Strawberry Creek, a tributary to the San Jacinto River. California State Water Resources Control Board, Complaint No. 33-05-01 In Re Strawberry Creek, Riverside County, CA. Sacramento: Ellison, Schneider & Harris, Attorneys at Law, LLP, 2007 - 2008.
- Work Camps, Mining Camps, and Towns in California, Historic Archaeological Research Design, prepared with Sonoma State Anthropological Studies Center. Sacramento: California Department of Transportation, 2006-2007.
- Historical Property Ownership Research for a Mine in Lake County, CA. El Paso Corporation, 2006.

REBECCA META BUNSE, M.A.

PRINCIPAL / CONSULTING HISTORIAN, VICE PRESIDENT, JRP HISTORICAL CONSULTING, LLC

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EDUCATION

M.A., History (Public History), California State University, Sacramento, 1996
Capital Campus Public History Program, with emphasis on Cultural Resources Management and Environmental History

B.A., Women's Studies / Italian, University of California, Davis, 1990
Emphasis on Women's History, Italian History, and Art History

BUSINESS AND PROFESSIONAL CREDENTIALS

JRP Historical Consulting, LLC:

- Vice President, 2017-Present
- Principal / Consulting Historian, 2016-Present
- Partner / Consulting Historian, 2012-2015
- Senior Historian I, January 2001-December 2001
- Staff Historian, 1997 to 2000
- Research Assistant, 1990-1996

Instructor, graduate seminar in Cultural Resources Management, CSU Sacramento

Past Board Member, Historical Preservation Commission, City of Woodland

Past President, California Council for the Promotion of History

Phi Alpha Theta, History Honor Society

Member, National Council for Public History

Meets and exceeds United States Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61) under History and Architectural History

EXPERT WITNESS TESTIMONY & PUBLIC MEETING / BOARD TESTIMONY

Klamath River Adjudication. Research services for the water rights adjudication on the Klamath River in Oregon. Historical research, collection of data and references, written direct testimony, and oral cross-examination before State of Oregon administrative law judge, Department of Water Resources. Somach, Simmons & Dunn, Sacramento. 1996–2004.

Appeals to City of Carmel Historic Resources Board / City Council. Appeals, testimony and appearances before Carmel HRB and City Council to listing of buildings as historic resources by the City of Carmel on behalf of 22 private property owners. 2006-2007.

Presentation to City Council, Pacific Grove. Peer review of historic resources evaluation of a residential building in Pacific Grove. Prepared for individual property owner and Horan Lloyd Law Offices (Monterey). 2006.

Presentation to Petaluma Planning Commission and City Council re Technical Report of Development EIR, regarding historic significance of buildings in development area, 2002-2003.

HISTORICAL CONSULTING SERVICES RELATED TO WATER CONVEYANCE

Pre-1914 and Riparian Water Rights and land use history investigation for acreage in Shasta County. Principal author and researcher. Sacramento: Lennihan Law, 2007.

Pre-1914 and Riparian Water Rights and land use history investigation for farm acreage in Yolo County. Principal author and researcher. Sacramento: Downey Brand Attorneys, 2004-2005.

Pre-1914 and Riparian Water Rights Investigation on 1,000 acres near Tracy, San Joaquin County. Principal author and researcher. Sacramento: Lennihan Law, APC, and the City of Tracy, Public Works Department, 2003.

Legislative history of certain provisions of the Boulder Canyon Act for Metropolitan Water District of Southern California, historical research. Sacramento: Ellison & Schneider, Attorneys at Law, 1999.

North Kern Water Storage District v. Kern Delta Water District. History of irrigation development and water rights claims on the Kern River in Kern County, California, including historical research and preparation of exhibits. Young Wooldridge, Bakersfield, 1997-1998.

Snake River Adjudication. Research regarding claim for federal reserve water rights under the Organic Act of 1897 for National Forests within the Snake River Basin. State Of Idaho, Office of the Attorney General, 1997-1998.

Research services for a water rights adjudication on the Klamath River in Oregon. Historical research and expert witness services regarding land and water use, hydroelectric power development, and client's pre-1909 water rights. Simmons, Somach & Dunn, Sacramento, 1996-2002.

Salinas River Research Project. Historical research and report regarding specified land and client's pre-1914 water rights and land use, to be submitted to the California State Water Resources Control Board. Ellison & Schneider, Sacramento. 1996-2000.

Solano Irrigation District v. The Names of All Appropriative Water Rights Holders in Upper Basin, et al., and Putah Creek Council v. Solano Irrigation District and Solano County Water Agency Putah Creek Water Adjudication: Historical research regarding Mexican Land Titles, Land Ownership and Agricultural Uses in the Putah Creek Riparian Corridor, and Historic Navigation on Putah Creek. Oroville: Minasian, Minasian, Minasian, Spruance, Baber, Meith & Soares, Attorneys at Law and Solano Irrigation District and Solano County Water Agency, 1994-1996.

Nickel Enterprises v. California. History of navigation and commercial use of California rivers and lakes. Included historical research and preparation of exhibits. California State Department of Justice, Office of the Attorney General, 1994.

Lytle Creek: pre-1914 appropriative water rights investigation for Fontana Union Water Company, Fontana, California. Investigation included analysis of appropriative and riparian claims, mutual water company rights and transfers of water stock, underground flows in defined channels, and Mexican water rights. Lagerlof, Senecal, Drescher & Swift, Pasadena, CA, 1991.

Historical research projects for the City and County of San Francisco Public Utilities Commission and Water Department, City and County of San Francisco, 1990-present.

Historical research into the passage of the Federal Power Act for City and County of San Francisco Public Utilities Commission and Water Department, City and County of San Francisco, 1990-present.

Complex Historic Properties and Historic District Studies:

San Jose to Merced Section, California High-Speed Rail Program: Inventory and Evaluation and Preparation of DPR 523 Forms, San Benito, Santa Clara, and Merced Counties, California, 2017–In Progress. Including historic irrigation canals and flood control infrastructure. Prepared for HNTB and California High-Speed Rail Authority.

San Francisco to San Jose Section, California High Speed Rail Program: CEQA and Section 106 technical reports, San Francisco, San Mateo, and Santa Clara counties, California, 2016–In Progress. Including historic irrigation canal systems. Prepared for HNTB and California High-Speed Rail Authority.

BART Silicon Valley Phase II Santa Clara Extension Project: Supplemental Built Environment Survey Report. Prepared with ICF for Santa Clara Valley Transportation Authority, and the Federal Transit Administration. 2013–In Progress.

Cultural Resources Compliance Manager, Presidio Parkway Project. As CRC Manager: prepare, direct, review, and monitor cultural resources compliance for parkway construction project activities within the Presidio of San Francisco National Historic Landmark / National Park. 2011–In Progress.

Bakersfield to Palmdale section, California High Speed Train, Historic Architectural technical reports, Kern and Los Angeles counties. Inventory and Evaluation of about 175 properties, photo-survey of more than 500 properties, APE development, database management, Section 106 effects analysis, CEQA impacts reports, San Joaquin Valley, Tehachapi Mountains, Antelope Valley, California. Prepared with URS (2011-2013) and TyLin (2014-present) for California High Speed Rail Authority.

Inventory and evaluation of several buildings on the UC Davis main campus, including the Briggs Reservoir remains, Hog Barn, Veterinary Medicine Buildings, Walker Hall, Campus Dairy, Chemistry building, Russell Ranch complex and many others. Evaluations beginning in 1998 and continuing, as assigned, through the present.

San Francisco Central Corridor: Historic Archival Research for support of historic archaeological research design and treatment report. Prepared with Far Western Anthropological Research Group for San Francisco Planning Department. 2013. Fresno to Bakersfield section, California High Speed Train: Historic Architectural technical reports, Fresno, Kings, Tulare, and Kern counties. Inventory and Evaluation of more than 300 properties, photo-survey of more than 1,100 properties, APE development, database management, Section 106 effects analysis, CEQA impacts reports, San Joaquin Valley, California. Prepared with URS for California High Speed Rail Authority. 2009-2013.

Golden Gate Bridge Mitigation: Update Historic American Engineering Record (HAER) documentation, prepare National Register Nomination for Golden Gate Bridge, City and County of San Francisco, California. Prepared for HNTB Corporation. 2012–In Progress.

Pacific Gas & Electric Salt Springs to Tiger Creek Transmission Line: Historical Resources Inventory and Evaluation Report, Amador and Calaveras Counties. Prepared for Far Western Anthropological Research Group. 2011–2012.

Van Ness Trolley Poles, Inventory and Evaluation of municipal trolley poles as part of Van Ness Bus Rapid Transit Project. Prepared for Parsons. 2009–2011. Authority, under contract to DMJM-Harris / AECOM. 2008–2010.

Other Water Resources / Land Use Related Studies:

Mokelumne Aqueduct, inventory and evaluation of a portion of the historic East Bay Municipal Utility District main supply system in support of cultural resources technical report. Prepared with Circlepoint, for Caltrans, District 4. 2014-present.

South Bay Aqueduct, a component of the Central Valley Project. Preparation of a finding of effect for this historic water conveyance feature. Prepared for Pacific Gas & Electric Company. 2014.

Water conveyance infrastructure inventory and evaluation in support of cultural resources technical reporting for the Fresno to Bakersfield section, California High Speed Train. Canals and canal systems dating from the 1870s through the 1950s, located in Fresno, Kings, Tulare, and Kern counties. Evaluations based on archival research and documentation; project included development of detailed database. Prepared with URS for California High Speed Rail Authority. 2009-2013.

Arroyo Grande Waterway: Inventory and evaluation of historic resources for waterway improvement project, San Luis Obispo County, California. Prepared for Morro Group, Inc. (SWCA). 2008-2009.

Land Use History, Van Ness Avenue, San Francisco. Land use history and archival documentation of the development of Van Ness Avenue, including its official survey, boundaries, and improvements from the 1840s through the present. Sources included historic survey maps, court records, and property ownership records. Coordinated findings with historic archeologist. Prepared with Parsons, for the City of San Francisco. 2008-2009.

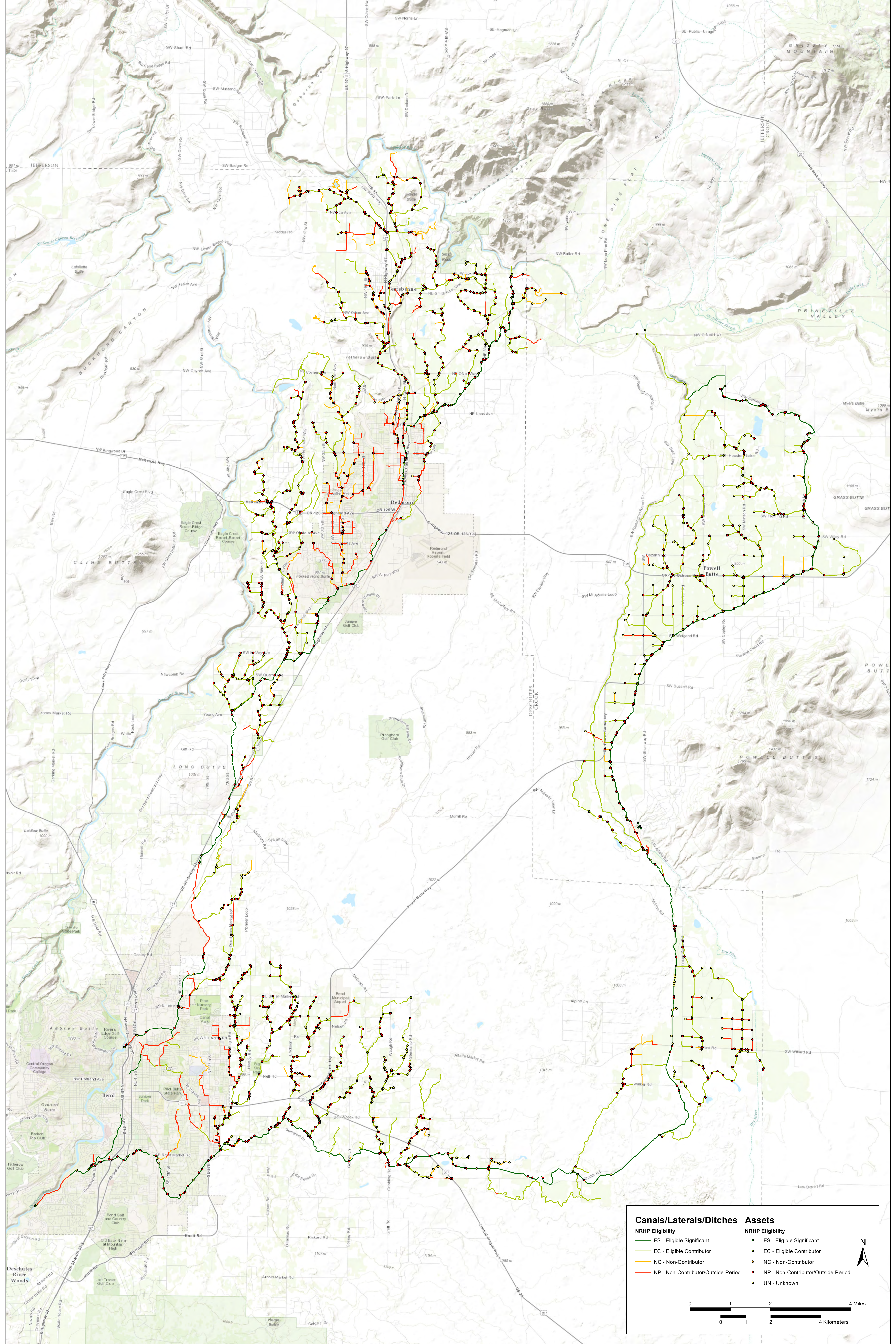
Land Use History, San Francisco General Hospital site. Land use history and archival documentation of the development of the hospital site from the 1870s through 1980 in support of an archeological research design and treatment plan, coordinating findings with historic archeologist, and geoarcheologist. Prepared with URS, for the City of San Francisco. 2008-2009.

Marsh Creek Dam: Historic Resources Inventory and Evaluation, Contra Costa County, California. Prepared for Far Western Anthropological Research Group. 2007.

Historic Evaluation of the Oakdale Road Bridge (38C0121) over Modesto Irrigation District (MID) Main Canal, Riverbank, California. Prepared for City of Riverbank. 2004–2005.

Historic American Engineering Record/Historic American Buildings Survey, Sacramento River WTP Intake Pier (Project), Sacramento, California. Prepared for the City of Sacramento, Utilities Department, 2003-2004.

- Historic Resources Evaluation Report for Potter Valley Canals: Reconstruction and Widening of Eastside Potter Valley Road, Mendocino County. Prepared for Archeological Services, Inc. 2002.
- Historic Properties Mitigation Program for the Delta Wetlands Project, San Joaquin Delta Islands. Sacramento: Ellison, Schneider & Harris, 2002-Present.
- Inventory and Evaluation of Historic Resources near Peyton Slough, Contra Costa County. Prepared for URS Corporation, 2002.
- Inventory and Evaluation of Historic Resources, Point Edith. Prepared for the Contra Costa County Mosquito and Vector Control District, 2002.
- "Inventory and Evaluation of Saeltzer Dam, Clear Creek, Shasta County, California." For Pacific Legacy, Inc. February 1999.
- "Inventory and Evaluation, Peyton Marsh Drainage System, Contra Costa County, California." For Contra Costa Mosquito and Vector Control District. 1997.
- Researcher and database manager for a historical study of land and water use on Putah Creek, Yolo County. 1996.
- Co-author and principal researcher, state-wide thematic study of historic canal resources. Project included an historic overview of canal technology, and an analysis of current evaluation methodologies, as well as proposing a standardized canal recordation format. For the California Department of Transportation. 1995.
- Principal researcher in project to document early fish populations in San Francisco Bay Area. 1995.
- Co-author and principal researcher, Historic Resource Evaluation Report on Oakdale Irrigation District canals, Stanislaus County, CA. 1993.
- Identification and evaluation of the historic significance of 89 historic water conveyance systems crossed by the proposed Mojave Gas Pipeline in Kern, Tulare, Kings, Fresno, Madera, Merced, Stanislaus, San Joaquin, Sacramento, Alameda, and Contra Costa counties, California. San Francisco: Woodward-Clyde Consultants for the Federal Energy Regulatory Commission, 1993.
- Identification and evaluation of the historic significance of six irrigation canals in Fresno County, CA. Fresno: California Department of Transportation, Fresno District Office, for the Federal Highway Administration, 1992.
- Project to document the significance of historic engineering features on the El Dorado Canal, El Dorado County, California. With BioSystems Analysis, for Pacific Gas & Electric Company, for the El Dorado National Forest. 1991.
- Project documenting the establishment of Fort Huachuca, and its historic water use, from 1870s through the Vietnam era. U.S. Army Corps of Engineers, Los Angeles District. 1990.



Canals/Laterals/Ditches Assets

| | |
|---------------------------------------|---------------------------------------|
| NRHP Eligibility | NRHP Eligibility |
| — ES - Eligible Significant | • ES - Eligible Significant |
| — EC - Eligible Contributor | • EC - Eligible Contributor |
| — NC - Non-Contributor | • NC - Non-Contributor |
| — NP - Non-Contributor/Outside Period | • NP - Non-Contributor/Outside Period |
| | • UN - Unknown |

0 1 2 4 Miles
0 1 2 4 Kilometers

N



Ward Rd to Gosney Rd



- ★ ICF EC Feature
- COC Ward Rd to Gosney Rd

ALLEN Jason * OPRD

From: Brenda Trowbridge <stix.n.tones@gmail.com>
Sent: Tuesday, February 06, 2018 3:07 PM
To: JOHNSON Ian * OPRD
Cc: Peter Gutowsky; Matt.Martin@deschutes.org; ALLEN Jason * OPRD; ZELLER Tracy * OPRD; Craig Horrell; Pat Kliewer; CURRAN Chrissy * OPRD; jewalden@gmail.com; Warburton Denise * OPRD
Subject: Re: Oregon SHPO Response to inquiries regarding the proposed Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment)

Ian and Chrissy,

I would like to simply say that I am grateful for our nomination being restored to its proper status. Thank you. To leave it at that, however, would be to gloss over the fact that this is yet another disappointing and questionably unlawful turn of events.

This letter reflects an inaccurate interpretation of events as far as I understand them. Unfair to the landowners and supporters of our nomination. Unfair to those who are advocating for us, our communities history and our regional significance. Unfair to those who have most generously donated a lot of money toward ensuring that we are being fairly treated in this process. I cannot overstate: I do not believe that we are being treated fairly.

I have a petition that I have personally circulated among just a few in my community and it very quickly gained hundreds of signatures without much effort. I am prepared to take this to the next level and even seek legal action, myself, for the damages in lost time and money. I plan to focus even more on spreading the word so that my fellow tax payers beyond our small community of landowners pertaining to this nomination understand just how corrupt a very simple process has become. And to ensure there are consequences to actions such as have been taken against the citizens who have a right to nominate historic properties, whether by ignorance or by intent.

I have spent countless hours educating myself and reading all of the correspondence. There has NEVER been a submission of a new nomination since the very beginning. The supposed "vote" against by any of the commissioners was, in fact, not simply improperly interpreted and improperly directed according to Federal law, it was NOT A VOTE AT ALL. Not to mention that the entire letter itself is in violation of a number of laws. Therefore, the 60-day comment period has already expired and there has never been a need for a new one. To say that a new one is needed in this situation is completely unwarranted and frankly ridiculous. To whose advantage would this be?

A revision of an existing nomination is not the same as a new nomination being submitted. Our nomination was never "blocked" as some have erroneously stated at a public meeting just last night!

COID over-stepped themselves by sending a letter, that the Department of Justice itself deemed "untimely." In its appearance at least, the letter had the look and feel of an official vote by our commissioners against us. What will their lawyers try next? Their actions already resulted in your being deceived. They have already tried to have the laws changed to make it so that historic canals such as ours would be ineligible for nomination. Thank goodness we have people on alert and these corrupt plans have been brought to light and thwarted. I have no doubt that we will continue to fight and stand up for what is right no matter what gets thrown at us. Simply save us the time and effort as we collectively contribute to your full time salaries.

Let me be clear: this has absolutely nothing to do with landowners trying to somehow protect their land from piping for improvements or hydro power by COID. I, for one, as a young person in my thirties and a stay at home mother of three young children who lived in Los Angeles for 9 years, can confidently say that I am pro-hydro power and pro saving water and pro river and pro fish. I am pro Bend and pro Central Oregon and grew up frequenting the area. I am also pro protecting private and community wells and pro wildlife and pro beauty. I am beginning to teach these important values to my children. This has NOTHING to do with any of these issues, as some have accused us. This has nothing to do with the fact that I have educated myself with the situation in Hood River and how much ADDITIONAL water it required year round and how much POWER and MONEY was at stake.

I am not a concerned and afraid "resident" along the canal trying to protect my property values or the beauty. Have you seen my land? Please come and visit! No, COID has no easement to do any piping here on my land today, tomorrow and in my opinion based on the overwhelming sentiment from our community, they never will. They would have to secure a notarized signature for every single landowner giving them permission for a new easement. That is never, ever going to happen and we are not concerned. This has nothing to do with their persistent claims that we do not own the canal, or that their easement allows for them to do more than operate and steward the water that runs through our land. COID has absolutely no right to pipe.

This has EVERYTHING to do with PRIDE. HISTORY. SIGNIFICANCE. FUTURE GENERATIONS. APPRECIATION OF PAST, PRESENT AND FUTURE. This has to do with children growing up in an Oregon wherein the top five planning goals are CITIZEN INVOLVEMENT and HISTORIC PRESERVATION. This has to do with tax payers having a will and appointed officials duty to carry out to their best ability their duties. So please, lets just stick to that.

I can understand that there is no verification process that SHPO has to ensure that what is sent to them is valid. But now that we do, in fact, understand that all kinds of things about COID's letter and supposed opposition of our County and landmarks commissioners was in fact invalid, can we just move on? Why the new comment period? To whose advantage would that be? I apologize for any perceived disrespect or going "off-topic." I simply believe these views that are shared among my neighbors and my community city-wide need to be heard. I have a duty to honor them and so do you.

Please restore our excellent nomination with unquestioned historical importance, already well-validated by the members of the SACHP themselves, back to its rightful hearing date on Feb 16th.

It has also been more than two weeks since the public records request sent by our team. Who is in charge of overseeing this process to ensure that nothing is left out?

Regards,
Brenda Trowbridge

On Mon, Feb 5, 2018 at 5:09 PM, JOHNSON Ian * OPRD <Ian.Johnson@oregon.gov> wrote:

All,

Please see the attached letter to the Deschutes County Board of Commissioners and Deschutes County Landmarks Commission from the Oregon SHPO the nomination of the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment).

Ian Johnson

Ian P. Johnson | Associate Deputy State Historic Preservation Officer



Oregon Parks and Recreation Department, Heritage Division

State Historic Preservation Office

Desk: [503.986.0678](tel:503.986.0678) cell: [971.718.1137](tel:971.718.1137)

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ALLEN Jason * OPRD

From: D J <stealthturner@msn.com>
Sent: Friday, June 15, 2018 8:48 AM
To: JOHNSON Ian * OPRD
Cc: ALLEN Jason * OPRD
Subject: Canal Nomination

Dear Sir. We are the Turners that live on the section of canal being nominated. Just wanted to say we are in support of this nomination for several reasons. First there needs to be a nomination in place and my question would be why not ours. On the 15 acres we own the historic canal is present. In the 63 years my wife and her family has lived here the canal has not changed. Only change was the bridge being removed at Burt chute. That's all the changes since than on our section of the canal. If the canal was piped we do worry about all the wildlife we have. Our 15 acres is in wildlife habitat and what will happen to the wildlife if there is no canal. We do want conservation of the water for the rivers but is piping the only answer ? No it is not. There has been studies done and there are other alternatives. We also feel that if the canals are piped that there will be a ground water well problem next. Anyway I just hope that somehow we can all work this out so all can be happy and the canal can be preserved and the wildlife can thrive. Thanks for your hard work on this project and for your consideration of the historic canal.

Dave and Janice Turner

Sent from my iPhone

ALLEN Jason * OPRD

From: Ville Jokinen <jokinen.ville@gmail.com>
Sent: Monday, June 18, 2018 3:53 AM
To: ALLEN Jason * OPRD
Subject: Preserving a piece of the canal

Hello Mr Allen,

I'm reaching out to tell you that I'm supporting the nomination to preserve the section of the canal from Ward Rd to Gosney Rd in Bend, OR.

I'm originally from Finland in Northern Europe, I moved to Bend 6 years ago. I grew up in an old city with rich history, and one of the best things about it was the ability to still see those sights and visit them with school trips and later on on my own. I don't feel like it's the same thing looking at them through photos/videos.

I think you would do a huge favor to the children now and in the future by preserving at least this section of the canal with so much historic value. Once they're gone you can't get them back. Bend is Bend because of these canals, not because of the golf courses and thirsty micro breweries that need more and more water. I know that something needs to be done to preserve the water in Deschutes River, but saving this small piece of history will not ruin the big picture.

Thank you for your time,

Have a great summer,

Ville Jokinen

141 SW Roosevelt, Bend, OR

ALLEN Jason * OPRD

From: Jenna <jewalden@gmail.com>
Sent: Tuesday, June 19, 2018 10:35 AM
To: JOHNSON Ian * OPRD; ALLEN Jason * OPRD
Cc: Pat Kliewer; Noah Walden
Subject: Letter supporting Nomination: Central Oregon Canal Historic District: Ward Road to Gosney Road
Attachments: IMG_0964.jpg; IMG_0958.jpg

Dear State Advisory Committee Historical Preservation Members;

I am writing to you in support of this nomination. Central Oregon is experiencing high population growth and many changes are coming to us residents. With more population comes a lot of change, and development. Threats to erase the past are even more present; that is why it is important to take steps to preserve slices of history that will enrich our community even more.

The State Historic Preservation Office is aware of the threat looming over Central Oregon's 100+ year canals by piping that will bury and cover up these structures. That's why they've been working with Central Oregon Irrigation District (COID) to designate stretches on each canal as historic for the past few years. Unfortunately, these attempts are done in the dark, without community input, have low integrity and have even disregarded property owners' support. At this time, there are zero historical designated stretches on the Central Oregon Canal.

We are presenting to you the **first** nomination on the **Central Oregon Canal** that has *broad, overwhelming support from the canal's property owners* and with *high historical integrity*. This historical landmark not only is reminiscent of what it looked like here over a hundred years ago, but access roads (including the ditch rider road) and a Bend Parks & Recreation parcel sit in the historic designation. This canal stretch will become a community asset in the future for the public to enjoy.

We have fought for months, corruption at our county level who have politically joined forces with COID. Through public record requests and legal specialists, we fought back attempts to corrupt this process at the hands of the one property owner that opposes this nomination: COID. We had to demand that the appropriate criteria for evaluating our nomination was used. Finally, our nomination got a fair and just decision from the CLG in Deschutes County: The Historic Landmarks Commission voted overwhelmingly to support our nomination.

Corruption continues to shadow this nomination, however. The Deschutes Board of County Commissioners (BOCC) are holding our nomination to non-relevant standards of future development plans and repair/maintenance issues that were addressed by our nomination preparer, Pat Kliewer, beforehand and were ignored. These have been the concerns COID has expressed over and over; our BOCC is a handmaiden for COID's interests.

This is the same story under a different name: historical preservation nominations are often opposed by developers who "have future plans". The developer in this case is COID and they want the community to turn a blind eye to their activities and dismissal of the heritage the community wants to protect. Piping may be the solution for much of the canal system, however, this segment represents 3.5 miles out of 40 miles of main canal (not including the laterals) and should be preserved for our future heritage.

COID disingenuously nominated the Brasada Ranch segment on the Central Oregon Canal for a reason; it doesn't get in the way of their development plans.

I visited this nomination and am astonished it was approved for historical preservation eligibility. The canal banks and bed were recently bull-dozed with bare earth (see photos below) and the concrete structures and large pipes erase any sense of protecting a historical legacy or context. If this is the benchmark for historical integrity, I believe our nomination will surpass this quite significantly. I was also astonished to learn that COID was willing to push this nomination without any approval from the property owners (which eventually killed it from being listed). Our nomination on the other hand, has more than a super-majority support of property owners.

I urge the committee members to vote in favor of listing this segment of the Central Oregon Canal as a historical landmark. It has so many things going for it including close proximity to the region's main population; this stretch can be enjoyed by future generations for years to come.

Sincerely,

Jenna Egusa Walden
Property owner - 61885 Somerset Dr., Bend





From: [JOHNSON Ian * OPRD](#)
To: [OLGUIN Robert * OPRD](#); [ZELLER Tracy * OPRD](#)
Subject: FW: Central Oregon Canal
Date: Friday, April 20, 2018 3:37:19 PM
Attachments: [image001.png](#)

And another, same process.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Noah Walden [mailto:noahwa@gmail.com]
Sent: Friday, April 20, 2018 3:14 PM
To: Zechariah.Heck@deschutes.org; JOHNSON Ian * OPRD; Pat Kliever
Subject: Central Oregon Canal

Hi Zechariah - Please forward to the Historic Landmarks Commission and the Board of County Commissioners.

To whom it may concern,

I'm writing to voice my support for naming the stretch of the Central Oregon Canal between Ward Rd. and Gosney Rd. a historic landmark. While it is imperative that we preserve as much water in the Deschutes as possible, it is also important that we preserve elements of our history so we can show future generations how this portion of our nation and state was settled. While much of the canal has been changed by necessity over the years, and much more will be changed in the future, this particular stretch, just 3.4 miles long, retains the characteristics the canal possessed upon its creation over 100 years ago. We should not lose that.

My hope is that we can preserve some part of the canals before all that remains of our region's history is buried in the name of progress. The state has mandated that some portion of the canal be preserved, and the stretch described in the application, in addition to being a well-used trail by the community, meets all of the qualifications of a historic landmark.

Contrary to COID's assertions, I do not believe that all of the canals are historic. Many of them have been changed drastically and have zero historic integrity. Some of them are just cement sloughs today and bare no resemblance to the canals our forefathers scraped into the land. COID wants to turn the canals into pipes and generate hydropower, and perhaps that is not an unreasonable goal for the system of more than 700 miles of canals under their jurisdiction.

COID has behaved in a secretive and duplicitous manner throughout this process, bringing politics and profit motive into what should be a conversation about preserving history and water. They have intentionally kept the public in the dark about their objectives and have sought little input or conversation. They have even fooled many into believing that they own the canal. They do not. They have created an atmosphere of hostility and set the stage for decades of litigation as they attempt to bulldoze the citizens of the county. I hope we can all move forward with an honest and open community discussion about the future of our canals.

I have read the 178-page nomination for this stretch of the canal and believe that it establishes clearly the historical importance and integrity of the stretch it describes. I trust you'll see the same.

Sincerely,

Noah Walden
61885 Somerset Dr.
Bend, OR 99702

From: [JOHNSON Ian * OPRD](#)
To: [OLGUIN Robert * OPRD](#); [ZELLER Tracy * OPRD](#)
Subject: FW: Written comment to Historical Landmarks Commission re: Central Oregon Canal Historical District - Ward to Gosney segment
Date: Friday, April 20, 2018 3:35:24 PM
Attachments: [image001.png](#)

Add this to the paper and digital files for the district, and include this in the 30-day mailing for the SACHP.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Jenna [mailto:jewalden@gmail.com]
Sent: Friday, April 20, 2018 3:15 PM
To: Zechariah.Heck@deschutes.org
Cc: JOHNSON Ian * OPRD; Pat Kliewer
Subject: Written comment to Historical Landmarks Commission re: Central Oregon Canal Historical District - Ward to Gosney segment

Dear Commissioners;

We are here again to review our nomination for the Ward-Gosney Canal Historic District. 5 ½ months ago, the original hearing occurred. Since that time, I have learned that many obstacles have been thrown up to table our nomination, a nomination that is widely supported by the property owners of the proposed Historic District.

HISTORICAL INTEGRITY & COMMUNITY BENEFITS

COID manages over 700 miles of main canal and laterals; this nominated segment is 3.4 miles, or 0.5% of the total. This segment is near the City Limits of Bend, easily reached by the Bend population, beautiful with a historic setting, has a ditch-rider trail currently used by many horse-back riders, bikers and walkers and the easternmost segment ends with an 80-acre parcel that Parks & Recreation owns, as well as an existing "Eastgate" park with many walking trails (and rumored future frisbee golf course). If this segment doesn't deserve to be saved for future generations, I'm hard-pressed to think of what is more worthy or more well-suited to become a community asset for future generations on the Central Oregon Canal.

Our nomination document walks you through the historical integrity of this canal segment in 178-pages and its integrity and historical significance is well-documented. The community and property owners I've spoken with, over 30 in all, recognize how this stretch of the canal has remained the same for generations, with some of them having played along its banks as children nearly 70 years ago.

UNPRECEDENTED HOSTILE RECEPTION BY COUNTY

A Public Records request and attorneys have documented this mess which demonstrates that we are up against myriad misinformation and biased opinions that are based on COID talking points.

The administrative "speed-bump" of withdrawing the nomination in January is notable because it has never been used before *by any CLG in Oregon's history*. Not only is it notable because of its anomalous nature in application, but COID's lawyer wrote a letter just days after County staff inquired about it to SHPO. What is so threatening about this nomination that the County needs to resort to this hostile behavior? COID has operated with an open canal since the 1920s, and it will be able to continue operating and maintaining this segment if it achieves a historical designation.

1. We have invited the commission to the site several times since June 30, 2017 when the nomination first was received. We would still love it if commission members can visit.
2. Through our public records request we have found quite biased statements opposing our nomination that have little to do with the historical integrity of the canal. For example, "They just don't want their canal covered." And another commissioner's comment is "... this nomination clearly represents a biased interest on the residents." The people behind ANY nomination will be biased and supportive of their nomination. How is this a reason for this body to reject the nomination? Also, wanting our canal covered or not is beside the point, HLC members [must use proper and specific evaluation criteria](#) provided by SHPO in their training to this CLG. It is my understanding this body received training on this in September 2017.
3. A repeated objection to taking the nomination at face-value is that the nominated segment has too many alternations and new materials to meet the integrity criteria. I suppose they are referencing the letter COID's attorney submitted detailing repairs done since 1993 in this segment; but as Gary Grund testified, many of the biggest problems have been of COID's own making. More importantly, the reality is that every designated man-made nomination will have to be maintained and repaired. Again, not a reason to not support the nomination.
4. The work session from Board of County Commissioners says Matt Martin told them there are already two preserved sections of the Central Oregon Canal. This is not true. There are currently two preserved sections on the Pilot Butte Canal, but not the Central Oregon Canal. Currently, Central Oregon Canal **has "zero" preserved** sections.
5. How is this nomination "piecemeal" or "hostile" as Craig Horrell states in a Sept. 7, 2017 letter? Every property owner except for one, COID, supports this nomination. In fact, COID has submitted notarized documents stating they own *four parcels* in the historic district and yet they only own one parcel.

CRITERIA FOR EVALUATION

Minutes show that SHPO provided training to this commission in September 19, 2017 called "How to Apply the National Register Criteria for Evaluation" that says, "The significance of a historic property can be judged and explained only when it is evaluated within its historic context. Historic contexts are those patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within history or prehistory is made clear... It's core premise is that resources, properties, or happenings in history do not occur in a vacuum but rather are part of larger trends or patterns." And yet one commissioner said of the nomination, "Nomination fails to make direct connection to events in early history of the Deschutes River with respect to this segment."

Alexander Drake's canal projects brought vitality and life to Bend and the canals have a direct connection to population and agriculture growth, as well as homesteading. It is no exaggeration to say that the canals created Bend. To preserve this segment means that future generations have a direct reflection of this time and is part of the larger system, which is based on COID's plans, are to be piped.

MEMORANDUM OF AGREEMENT => MULTIPLE PROPERTY DOCUMENT

The MOA entered in by BOR, SHPO and COID and is [located here](#) for your reference (see embedded hyperlink). This MOA recognizes the intent to erase the canal as it is throughout the district and that preservation actions are needed. The MPD was listed on the National Historic register on July 10, 2017. Our nomination was submitted on **June 30, 2017, therefore, it did not apply at the time of our submission and this point should be disregarded.**

And yet, COID calls our nomination hostile and the county has tried to spike the nomination while SHPO's mishandling of the process creates deliberate confusion. If you read the MOA, you will see that COID has been given ALL the authority to create and edit the MPD, add their own "district-specific contexts and registration requirements", and select their own nominations. You know who isn't involved? The Public or Deschutes' CLG. This document is really a sham that allows COID to cherry-pick their nominations; which they did.

Currently the only segments they have nominated on the Central Oregon Canal is one in Crook County (which does not have a CLG, therefore no evaluation at the local level was given) and one in City of Redmond (and they did not chime in, either). The Brasada spur in Crook County was only tabled because COID did not obtain the property owner's authorization and support. Otherwise, they would currently say they have fulfilled their preservation obligations on both canals. Not only do they show a pattern of trampling and disregarding property rights, but this nomination was panned at SAHPO hearing by experts and if you go out there, you'll see that the "historic canal bed" is being driven on by golf carts.

Which leads me to wonder, not only does this nomination for the Central Oregon Canal have broad support of the property owners, not only is this segment representative of what it has always looked like since the canal's completion in 1907, not only is this segment a short-drive from the populated areas that for future generations preserve 3.4 miles of the past and what brought life to Bend, not only does this segment end in an 80-acre Parks and Recreation parcel and Eastgate Park, which ties in beautifully with this nomination, but based on the past objections of this commission, **how could any stretch of Central Oregon Canal be supported by this Deschutes County based on the reception and efforts against it?** The biased view and actions of the county which reflect COID's desired outcome ensures that they'll be hostile to *any* preserved segment of the Central Oregon Canal in Deschutes county. The only way to get a nomination through with local support is to nominate stretches that have no Certified Local Gov't that will evaluate the nomination on integrity merits.

Please consider this important point: **the message you send if this nomination is not supported by this body, is there is no segment worthy of protecting on the Central Oregon Canal in Deschutes county.** *COID thinks the best option for future generations is to drive 20 miles to Brasada Ranch to see how the canal "used to look like".*

CONCLUSION

There are two recusals of the Historical Landmark Commission: The Ex-officio and Christine Horting-Jones. These two members should not be part of the internal deliberation and must completely recuse themselves from any part of this evaluation.

This nominated section has high historical integrity, quick access from the populated areas and built-in infrastructure and parcels that can welcome visitors presently and in the future.

In conclusion, it is imperative that this body evaluate the nomination solely on the merits of its historical integrity and the training SHPO has provided. If they cannot do so, *then please must take no position*. COID sees the canal as utilitarian while we, the community and property owners of this nominated segment, see a community asset that should be preserved for future generations.

Sincerely,

Jenna Walden
Property owner of Historic District - 61885 Somerset Dr.

To: Deschutes County Historic Landmarks Commission
And Deschutes County Board of County Commissioners

Date: April 23, 2018

This written testimony is addressed to both the Deschutes County Historic Landmarks Commission and the Deschutes County Board of Commissioners. The Central Oregon Canal—Ward Road to Gosney Road—will be reviewed by the Oregon SACHP on June 20. All Commissioners and Council members should read this testimony as well as the actual Central Oregon Canal—Ward Road-Gosney Road Segment- nomination in their entirety prior to voting on it. County Board of County Commissioners have not held any public hearings and SHOULD properly learn about this nomination, their responsibilities as CLG representatives, and the false claims of opponents before making any votes.

This nomination for the segment of the Central Oregon Canal is being submitted to the HLC and County Board of Commissioners again because there were so many procedural errors committed by both Deschutes County and SHPO staffs with the first review that the Oregon Department of Justice decided that the nomination had to start again and repeat the whole process. You heard false claims from SHPO and the County Planning Department as to why this nomination is again being presented but this repeat performance was not caused by anything the author of the nomination did. Do not be prejudiced by false information.

1. Role of County and Exclusive Criteria to be Considered in Reviewing a Nomination.

As explained by SHPO and Deschutes County planners during the April 16, 2018 HLC meeting.¹ This nomination is to be judged by the rules for a certified local government. **Deschutes County as part of a Certified Local Government is subject to federal, state, and local law. The requirement for the HLC is to determine if:**

- 1. THE COMMISSION ALLOWED REASONABLE OPPORTUNITY FOR PUBLIC COMMENT and**
- 2. THE COMMISSION REPORTS ON WHETHER THE NOMINATION MEETS THE CRITERIA OF THE NATIONAL REGISTER. 54 U.S.C. § 302504.²**

The only two relevant criteria for this nomination are:

“The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association:”

And the historic resources “are associated with events that have made a significant contribution to the broad patterns of our history;”

¹ The minutes and even recordings of that meeting have been WITHHELD by the County from public access. Just as the minutes from the October 2017 HLC meeting have never been prepared and approved, this APPARENT intentional lack of transparency of the County staff IS IN VIOLATION OF LOCAL CODE.

² These two obligations are also incorporated into state regulations (OAR 736-050-0220), and local code.

In applying these criteria, the County should remember its overarching role as a CLG. The National Parks Service explains this purpose in its handbook for CLGs:

PRESERVATION THROUGH PARTNERSHIP: THIS IS THE GOAL OF THE CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM. LOCAL, STATE, AND FEDERAL GOVERNMENTS WORK TOGETHER IN THE FEDERAL PRESERVATION PROGRAM TO HELP COMMUNITIES SAVE THE IRREPLACEABLE HISTORIC CHARACTER OF PLACES. THROUGH THE CERTIFICATION PROCESS, COMMUNITIES MAKE A LOCAL COMMITMENT TO HISTORIC PRESERVATION. THIS COMMITMENT IS KEY TO AMERICA'S ABILITY TO PRESERVE, PROTECT, AND INCREASE AWARENESS OF OUR UNIQUE CULTURAL HERITAGE FOUND IN THE BUILT ENVIRONMENT ACROSS THE COUNTRY.

2. Deschutes County Has Not Applied the Proper Criteria or Attempted to Fulfill its Role as a CLG in Regard to the Nomination—Instead it Has Favored COID and its Interests.

It does not appear that the County is properly evaluating this nomination under the applicable criteria, nor fulfilling its role as CLG to preserve history. Extensive ex parte communications with an opponent of a nomination while limiting proponents comments does not satisfy these requirements. Preferential treatment for opponents by either the County or SHPO should not be allowed. Additionally, any consideration about the impacts of listing, future destruction plans, or COID's preferences about listing are NOT criteria of the National Register and are not allowed. You cannot create your own criteria and forms. If you have existing bias on this nomination, piping, or hydropower you should recuse yourself from the deliberations and voting on this nomination.

Under National Register standards, only the legal deeded landholders have a responsibility in listing a property for the National Register. COID's actions on this nomination have been deceptive. COID claimed to own 4 parcels in the nominated area, but in reality COID only legally owns 1. They submitted the correct forms, all properly signed and notarized, in objection to the nomination for 4 parcels however 2 of the parcels are not in the Historic District at all and one is not owned by COID. COID's claims of ownership were never verified by Deschutes County or SHPO. Under National Register standards, COID may vote for that one parcel. But in this case there are 44 other privately owned parcels making up this Historic District, including the City of Bend Parks and Recreation. None of the others objected, and a vote of 44 to 1 is definitely sufficient to list this historic district (a majority vote is required to be favorable).

COID is an easement holder for the canal, and the actual rule as discussed by Matthew Martin of the Community Development Department in his letter of September 28, 2017 addressed to the Deschutes County Board of Commissioners states:

“The Central Oregon Canal is operated by the Central Oregon Irrigation District (COID) via an easement. The regulations applicable to the National Register of Historic Places state:

“The term owner or owners means those individuals, partnerships, corporations or public agencies holding fee simple title to property. Owner or owners does not include individuals, partnerships, corporations or public agencies holding easements or less than fee interests (including leaseholds) of any nature. (36CRF 60.3)”

Based on this definition, the owners of the underlying real property are owners of the canal, not COID.”

There is no grey in this definition and any references by the County staff, SHPO or COID concerning ownership by anyone other than private citizens is incorrect, and must be ignored.

As any other interested outsider, COID may comment either orally at a public meeting or in writing with other public comments. These are the only rights COID has. Extensive ex parte communications and coordination for the county or the commissioners with COID or its lawyers are unlawful. As an easement holder COID’s comments must be considered only equal in weight to any other public non-deeded landholder for this district. There should be no preferential treatment given to them. At the April 16 HLC meeting COID received 30 minutes for presentation, equal to the actual preparer, while all other deeded landholders in the district and non-district public were restricted to 3 minutes each. The County did not allow the preparer rebuttal time for the numerous false statements made by COID orally. **This shows preferential treatment by the County and is unlawful.** This should not be repeated. **Either each speaker receives 30 minutes or COID is restricted to 3 minutes like everyone else. No exceptions.** This rule should be adhered to for both the HLC and BOCC hearings on this nomination.

3. Deschutes County Should Reverse Course and Properly Consider the Nomination—or Not Provide a Recommendation at All.

In summary, let’s make these rules more understandable. Deschutes County states that **“THE ROLE OF THE HLC IS TO ASSIST PROPERTY OWNERS IN RURAL DESCHUTES COUNTY . . . PRESERVE HISTORICALLY AND ARCHITECTURALLY SIGNIFICANT BUILDINGS AND SITES.”** SHPO states your duty is **“TO PROVIDE LOCAL HISTORICAL EXPERTISE”** and **“REVIEW FOR ACCURACY AND TECHNICAL COMPLETENESS”**. These are your only duties concerning this nomination—preserve history, and verify accuracy and technical completeness of the historical nomination.

First, at the most basic level, did you receive this current nomination with sufficient time to read it? That is the responsibility of the SHPO and the County. SHPO had the corrected version of the nomination in their office in both written and digital form by the middle of September but chose to not give it to you at your October meeting. Instead you were given the earlier draft, and SHPO’s revision comments—which had already been completed in the current draft. This makes no sense and undermines the County’s role in reviewing the nomination for compliance with the applicable criteria and technical accuracy. Please ensure that this time did you receive and read the correct, current version. To ensure that you are reviewing the correct version, Pat gave all HLC commissioners correct current copies at the February 2018 HLC meeting but

the County Planning Department instructed the HLC not to read them at the conclusion of the meeting. This is not appropriate for a CLG's review of a nomination.

It is apparent from public records that the state is more concerned about protecting its 12 million dollars in loans to COID and advancing political interests than in following the laws for historical designation, protecting private property rights, and guaranteeing proper public involvement. Local governments should resist this negative influence and protect the historical designation process, private property rights, and public participation. In a transparent and healthy democracy decisions are not made by determining political ends and getting them without regards to the laws. The laws need to be legally and equitably applied. Please demonstrate your commitment to these ideals and the public. Actually reading the current nomination you are evaluating is a necessity. Commissioners of the HLC and the BOCC were invited to visit the site several times since last summer but your county staff chose not to give you the invitations. The County and COID took 2 BOCC commissioners together for a private tour, when that qualifies as a quorum and by law must be identified as a public meeting in the agendas. All BOCC decisions were the result of "work sessions" which blocked all possible input from the author, proponents and public participation. Because of these ex parte contacts were improper , all information you heard in prior meetings or pro-COID testimony concerning this nomination MUST be ignored or you should recuse yourself.

4. Even if the County was Allowed to Consider the Non-Criteria Arguments of COID, Almost All of these Statements are Half-Truths or Entirely False.

COID has made numerous statements either orally or in writing to persuade you to support their viewpoint. But are these representations are not actually based in reality.

a. COID is not an expert on history and has not sought to advance protection through its MPD and own nominations to the National Register.

COID claims that they undertook an expensive review of their system. However they specifically hired a National Parks employee from Seattle (he was already employed in that capacity and contrary to Craig Horrell's assertion he was not hired by National Parks after he completed COID's work. He had no prior experience with irrigation systems.). COID took this fellow on a quick drive around just a few canals ("a reconnaissance-level survey"), dictated their desired result, and refused to let him participate in the SACHP meeting where his intertwined 3 nominations (Downtown Redmond, Brasada Ranch and Vale Irrigation) and the MPD were approved.

The COID MPD was prepared to substantiate the three named nominations which would have been non-qualifying under actual National Register requirements and justified the nominations at SACHP meeting and National Register with only the COID MPD. Only one of the three nominations was listed on the National Register. These documents were not to protect history, but rather to permit COID to meet the unlawful 2014 MOA requirements by nominating segments not based on historical significance, but rather segments that lacked hydropower potential, in order to allow for destruction of historic privately owned property without any further review by the HLC or public involvement. These documents were prepared specifically to allow

COID and other irrigation districts throughout Oregon unsupervised permission to aggressively pursue hydropower development without oversight by local governments, the public, or private landowners. Even Umitilla Irrigation District strongly objected to the wording on the documents which would apply to them. COID and SHPO forced approval through SACHP since their 2014 MOA was due to expire a week after the SACHP meeting. The Chairman of the SACHP works for Portland General Electric and refused to recuse herself in spite of direct conflict of interest. Public records have shown that COID does not care about historic preservation, and conservation of water is not its primary goal. Records show that the governor's office has directed SHPO to abandon their primary role of historic preservation to advance the governor's political agenda, without respect for public involvement or the rule of law.

This lack of concern for historic preservation and public involvement is even evident in the MPD and the nominations themselves. The MPD and COID's underlying survey are not consistent with the National Register standards. Please read the Appendix below to see citations and the background for these documents.

Yes the badly flawed MPD and the Downtown Redmond segment were listed on the National Register. But neither the Brasada Ranch or Vale Irrigations nominations were listed. There are no segments of the 48 mile Central Oregon Canal on the National Register. Other central Oregon canals have no National Register segments at all except for the Pilot Butte Canal.

b. COID has attempted to eliminate public involvement in the consideration of historic designation/preservation of its canals so that it can advance its hydropower goals.

Regrettably, COID's poor MPD and nominations are part of an ongoing effort on the part of COID to confuse and exclude the public. COID negotiated an MOA with BOR and SHPO in 2012 for less than a mile on the "I" lateral of the Central Oregon Canal without following the requirements of National Environmental Protection Act (NEPA) and National Historic Preservation Act (NHPA). This pipe bisected natural wetlands, and no public hearings were held. In 2012 SHPO was concerned about the volume of repeat piping requests from Central Oregon, and so stipulated that COID must prepare a survey of their entire system, and nominate two historic segments. The next year COID obtained Watersmart funds from BOR to pipe the Pilot Butte Canal by falsely claiming that they owned the property and that they had all the required permits. They had neither. After receiving the funds BOR, COID, and SHPO modified the 2012 MOA to the 2014 MOA under the effort of Christine Horting-Jones, without even changing the title in the document. "Memorandum of Agreement No. R14MA13733 among the US. Bureau of Reclamation, the Oregon State Historic Preservation Office and Central Oregon Irrigation District for piping of a segment of the I-Lateral Alfalfa Vicinity, Deschutes County Oregon" applies to all 700 miles of canals and laterals of Central Oregon Irrigation District in both Deschutes and Crook County. NOBODY directly affected by this revised MOA was notified or permitted to comment. No public hearings were held. Several individual had filed with SHPO for inclusion in all documents concerning COID or the Canals prior to documents being signed, but NOBODY was notified. None of the SHPO requirements of the 2012 MOA had been met, however the piping was complete. The half wetlands are now only fed by a COID pipe directly from the piped lateral, and as such are not naturally occurring, and COID may terminate their existence at any time. Again, no NHPA and NEPA standards were followed.

Just this year COID, BOR and SHPO modified created a 2018 MOA (while the 2014 MOA mitigation requirements are still being completed), and again did it without any public hearings, and by again violating public laws. In fact, the memo from December 27, 2017 from Christine Horting-Jones to Ian Johnson openly stating that they had held no public hearings in paragraph 2 as copied below:

“Public Outreach: Reclamation did invite Restore OR, the Deschutes Historical Society, and the Bend Landmarks Commission to review the draft MOA. Restore OR declined, DHS sent a quick email in support of the mitigation, and the BLC has not yet responded with any comments. Since this to-be-piped section is within the city of Bend, it is the BLC not the Deschutes Co HLC (they are separate CLGs) that was invited. As to HOAs-Coid owns in fee simple the land surrounding and beneath the canal—so no property owners have been invited to comment.”

Christine Horting-Jones who wrote this memo as the BOR representative demanded “a rapid turn-around on your review” since she knew the project would begin in mid-January 2018. Christine Horting-Jones was a participant in each of the COID MOAs since 2012, and authored some of the erroneous Section 106s concerning piping. None of the MOAs or Section 106s had an open public hearing, and none of them informed all affected property owners of what was considered—totally eliminating possibility for deeded landholders to participate or object. All three Section 106s and MOA’s are in violation of law. Since the agreements in this MOA extend considerably beyond the segment that was being piped, a public hearing should have been held in which all canal owners should have been notified. **The requirement for public hearings are not predicated on COID’s ownership of one segment, but rather to allow ALL citizens a chance to participate in hearings and this is a state law. The resulting MOA will affect more than just the one small segment being piped in January 2018, affecting all canal owners.**

The 2018 MOA approved in January promises to give the Bend Parks and Recreation 30 miles of land for trails along the canals. But COID does not own 30 miles of canal land. As privately owned property COID has promised something it doesn’t own and cannot give because it will never purchase the land from the owners and by Oregon law cannot use eminent domain in a for profit venture. Since there was no public hearing on any of the 2018 MOA it was approved by COID, SHPO, and BOR with faulty promises included. BOR has previously stated that once an MOA is signed, they will grant the money even if they later find out the MOA was obtained with incorrect information or illegally obtained. The local jurisdiction needs to be involved or you have exactly what is happening in Bend now. The oldest section of canal, the original segment supplying water to the new town of Bend in 1904 and feeding both the original Pilot Butte Canal and the Central Oregon Canal has been destroyed forever. Eleven foot diameter pipes have been placed in a previously wooded area that is now void of vegetation over 50 feet to each side of the pipe because of COID destruction. And the Bulletin recently claimed that they were only 4 foot diameter pipes since they never honestly investigate what COID tells them. (If you find your high school algebra a bit rusty, when you use the Area=pi times radius squared let’s see what that difference is. For a 4 foot diameter pipe, the volume would be 50.24 square feet, and an eleven foot diameter pipe would result in a volume of 379.94 square feet. The Bulletin “mistake” only reports 13% of the actual size of the new piping. This is exactly why local public hearings should be done.)

COID even had Bend Parks and Recreation incorrectly identify the North Unit Canal in Canal Row Park as the Pilot Butte Canal in their neighborhood mailings. These canals are owned by a totally different irrigation companies, and are not one and the same. Size, water flow, width and construction of the canals and area served are totally different. COID follows the old adage that if you repeat a lie often enough somebody will believe it. COID wants to confuse the public and the politicians so that everyone will just “believe” them rather than trying to learn the truth. Irrigation is not complex except when it is intentionally clouded by misinformation.

c. Contrary to repeated assertions by COID, piping will not necessarily result in significant conservation of water, but will definitely impact users of well water and nearby wildlife.

There are serious consequences for the piping of canals. In 2013 the USGS published a study showing that the piping and sealing of canals significantly adversely affects the water table. COID, and the Deschutes Board of Control (a coalition of 8 irrigations districts) chose to ignore the warning. If the water table falls, the cities of Madras, Redmond, all the farms and ranches and half the water for Bend could be in jeopardy. Wildlife that lives alone canals will die, and all vegetation for at least 50 feet on either side will be destroyed (as it has been in Juniper Ridge and in Three Sisters Irrigation District). COID has stated that they don’t care what happens to the wildlife or the water table because the canals are not natural streams. After 100-years of existence, and the justifiable reliance of citizens and wildlife on the effects of the canals, irrigation districts should not be free to just dismiss the negative consequences of its development. In Arizona, Texas, and Mexico where irrigation districts have depleted the water tables, massive sinkholes have opened swallowing entire roads and vehicles. Central Oregon may soon suffer the same consequences.

You should also closely examine COID’s repeated false claim of “conservation”. The County and COID were taken to LUBA after construction of the Juniper Ridge Power Plant. LUBA ruled that COID plans for further piping to feed the plant were not for conservation, but rather for hydropower production. COID was instructed to go back to the county and follow the proper procedures.. No proper procedures have been followed by any COID project before or after the LUBA case. None of the necessary public hearings have been held for any further projects under COID.

COID submitted many engineering reports concerning repairs in this section of the Central Oregon Canal, but all of those occurred well after the significant time period of this nomination and are inconsequential. And in fact the most major repair when the lava tube was opened in 2010 was as a direct result of COID unpermitted digging in the canal without the landholder’s permission. These older canals have previously been determined to be water tight, Even engineering reports around 1920 stated that the main canals were very water tight and the leaking is on the laterals. No matter what COID says about leaking, they have never produced any factual records to prove anything. Anyone with even the most basic geology training will tell you that a canal or lateral in sand, as exists in Redmond, Alfalfa, Powell Butte, and Terrebonne, will leak extensively, whereas an older canal with a basalt base is nearly impervious to the water. Since COID is currently “dumping” considerable water on undeveloped BLM land in multiple locations (to protect their “use it or lose it” responsibilities for their grandfather water rights) their comments about “leaky old canals”

don't add up. That phrase is a public relations talking point. Over the last decade COID has spent millions of dollars in legal and public relations and lobbying expenses to professionally disseminate these talking points, but has not provided substantiation. Further, COID is not authorized to be engaging in political and marketing activities.

COID and its attorney have never established that COID actually leaves any additional water in the Deschutes River in Bend. Their intention appears to be to take water rights and let Deschutes Board of Control (DBC) resell them further down the system so that the water can be used repeatedly for the planned dozen hydropower plants they will be building in central Oregon. The larger pipes they put in (11 feet in diameter in Brookwood area) will require more water that they will take from the Deschutes. Hydropower requires circular pipes to be completely full with no turbidity to function correctly (no ovals, no multiple pipes side by side—defiantly visual eyesores above ground as they plan on installing them). COID is upset that the Juniper Ridge power plant where they were advised to build a 3.5 megawatt plant has insufficient water for the 5.5 megawatt plant they built on State of Oregon Park Land without acquiring the land first. COID has responded by overfilling the Pilot Butte Canal to the point of it overflowing into Juniper Ridge. COID claimed it was “just a puddle” and yet COID was unaware it was overflowing for almost a week. COID's intention is to take more water from the Deschutes in pipes so nobody can see it. As a municipal utility there is no transparency with COID.

Actually since the Juniper Ridge Power Plant was built the water that COID has taken from the Deschutes has increased. The 400 cubic feet per second which they promised to “save” with the power plant in 2009 has actually resulted to an increase of an additional 450 cubic feet per second being taken from the Deschutes by 2016 (a net increase of 850 cubic feet per second to COID's projected water volume). The irrigation companies have also modified laws so that they are not required to follow the endangered species requirements, and so they have already exterminated two of the native fish in the Deschutes ---The Bull Trout and the Steelhead Salmon.

5. It appears that County officials have been biased against the Nomination through extensive ex parte contacts with COID, or through their occupations.

Under federal requirements for CLGs, state law, and local code, the HLC and County Commissioners must provide for a fair review of the Nomination, and robust public involvement. The County can be disqualified a reviewer of a nomination due conflict of interests or extensive ex parte contact with an interested party. It appears in this case that there are both.

First, it appears that the Oregon State annotated performance standards for Certified Local Government Program have been violated by Deschutes County. From the State Historic Preservation Office annotated standards it is a requirement for:

B. "The Certified Local Government establishes and maintains an adequate and qualified landmarks commission."

The CLG must seek the expertise necessary to make informed decisions about historic and prehistoric cultural resources. This is normally provided by a landmarks commission composed of professional and lay members; however, qualified staff members and/or consultants may be relied upon as needed. At a minimum, **the CLG must make a reasonable effort to seat commissioners with a demonstrated *positive* interest in historic preservation**, the majority of whom should meet the federal historic preservation professional standards (q.v., “Minimum_Requirements for Certification,” *Historic Preservation Fund Grants Manual*, Chapter 9, (D)(2)). The CLG must provide the SHPO with the opportunity to comment on qualifications of candidates prior to their appointment.

Based on public records and her previous advancement of the interests of irrigation companies, it does not appear that Christine Horting-Jones claim to be attempting to make a POSITIVE interest in historic preservation—at least for any history related to irrigation or other interests of the Bureau of Reclamation. As an HLC member she should be protecting history rather than trying to destroy it. It is shocking that the HLC Chairman appears to have been coordinating the destruction of history in this county through discussions with planning staff and other HLC members, while publicly recusing herself from consideration of the Nomination. It is highly questionable whether her position at the BOR is suitable for a member of the HLC at all.

Further, Deschutes County records reveal that all of the commissioners and the planning staff have had extensive ex parte communications, and even coordination of the review of the Nomination, with COID. These contacts have almost certainly biased the HLC and County Commissioners through consideration of improper factors and unverified information. If you came to review this nomination with pre-existing bias due to extensive contacts with COID or evaluation of factors that are not part of the nomination review criteria, you should recuse yourself. And, in fact, the County should consider if should even be reviewing this nomination. .

6. Conclusion – Please Review this Meritorious Nomination Based on the Proper Criteria.

It is time to properly document and evaluate proper preservation of historic canals now. Canals cannot be relocated, replaced or rebuilt. Once canals are destroyed they are gone forever. COID has been downplaying the importance and individuality of the Canal systems so they can convince unsuspecting public that “they are all the same” and that there is no need to save them so that they can generate millions of dollars of profit for their own use private use. They are taking from the public for their own financial reward. The public and local governments should be fully involved in correctly evaluating and designating the most deserving segments of canals, and determining what segments should be preserved.

The first step is to properly document and designate the most deserving segments on the National Register. This Nomination concerns one of those segments. These canals were built by hand over 100 years ago. This canal is essentially the way it was built—and that is called integrity. The setting and feeling of the locale reflect the canals as they were built. It is well described, the appropriate criterion has been used, both

historic and current facts are well presented and substantiated, and photos, charts, and maps are all easy to understand. This nomination is for 1901 to 1935, and all the changes since 1935 are irrelevant. This segment was declared National Register eligible years ago, and it is time to grant the status it deserves. This canal is living history and needs to be considered for protection for future generations. The Central Oregon Canal—Ward Road-Gosney Road segment meets every criterion for National Register and you should approve it. The citizens relying on current water levels, wildlife living alongside the canal, and the vegetation and flowers around it need to be considered when evaluating development—as mandated by federal law under NEPA and the NHPA.

There will be a substantial loss of important history if COID is allowed to unilaterally determine designation and preservation of canals. BOR and COID wants to destroy every canal in central Oregon—except for the few segments it selects for non-interference with its hydropower plans—and build at least a dozen hydropower plants in the local area. COID has permission to add hydropower to any pipe in its system. Once the pipes are installed, there will be no hearings or reviews concerning location or plans for hydropower plants and the extensive wire webs radiating from them. The noise, electronic pollution, 24 hour lighting do not belong in residential areas. But COID choices are based on hydropower production, and not consideration of neighbors, just as their choices for the NR nominations sites were based on hydropower and not historical significance. Residential areas will become quasi-industrial areas, and we already have a housing shortage in Bend. This is your opportunity to designate a short stretch of the Central Oregon Canal so that it can be considered for preservation, just the way it was when first constructed for posterity. Future generations will have no knowledge of, or respect for the original irrigation systems which actually were responsible for settling central Oregon if COID has their way. Don't let it become just another irrigation district demolition statistic.

Aleta Warren

APPENDIX – COID MPD AND NOMINATIONS:

Page E-4 *Other possible historic contexts might address irrigation projects in less arid environments, such as the Willamette Valley or the Rogue River basin. Consideration of these and other specific historic contexts are outside the scope of the current study.* And yet on page F-35 (1 b.) it specifically says *“this MPD will only be applicable to those irrigation projects contained entirely within the State of Oregon.”* How can something with such a limited scope apply to all of Oregon?? Politics!! Nothing else. Looking at a farm in Tumalo does not allow you to make generalities that apply to downtown Portland.

Page E-30 (footnote #142) specifically states *“..this MPD is only applicable to the nomination of those irrigation projects (in whole or a portion thereof) where a project-specific context has been added to this main document. The two exceptions are the Central Oregon Project..and the Vale Project... The information contained in this MPD is considered sufficient for nomination of facilities in the Central Oregon Project and*

Vale Project without any addition or a project specific addendum.” So COID and Vale have usurped HLC review and vote on future projects. Citizens must supply extensive information and go through all the proper reviews and votes, but COID doesn’t. There is no supervision at all over COID or Vale Irrigation. And in the meantime COID attempts to block all other citizen nominations as they have been attempting to do with the Central Oregon Canal—Ward Road to Gosney Road segment.

Page H-67 clearly identifies assumptions made concerning all surveys undertaken by COID. They include:

- *“Resources less than 50 years old were plotted in GIS but not recorded or analyzed.”* In other words everyone else is required to report and describe every feature, contributing or non-contributing, but COID can just “forget” about anything that does not meet their agenda. And even SHPO’s records “forget” anything COID does not want recorded in order to make COID documents appear better than they are.
- *“Piped portions of each irrigation project were assumed to be less than 50 years old...and not recorded or analyzed.”* Ironically this allowed COID to just “forget” about all pipes crossing the canals regardless of purpose or date of construction. These pipes (electrical, natural gas, cable company, telephones, and even irrigation) should be listed as non-contributing features and described by location and use. They impact the visual setting of the canals.
- *“Common features such as fence lines, vehicle gates, and cattle guards were not recorded or analyzed.”* But these are all defining features of the setting and should not be omitted.
- *“Inaccessible resources were not recorded. Resources were determined to be inaccessible if they were within 20 feet of a private residence, access was blocked by a parked vehicle... access was through private property displaying “no trespassing” signs, there was no discernible road or path to the resource.”* Since when can an historical designation just “forget” about even recording or analyzing any resources within a nominated district? Only COID can do that. Actually COID themselves quickly placed “no trespassing” signs throughout their system just prior to the writer’s visit even on land that did not belong to COID.



The MPD includes everything up to 1979, and therefore includes actual resources would not be eligible under normal National Register standards. NR requires that nominated resources be 50 or more years old. But under the MPD, more recent features can be listed. COID singlehandedly changed the application of National Register law by use of the MPD for the nominations they submitted.

Page F-36 and 37 give COID authority, contrary to the National Register standards, to nominate abandoned or empty canals or laterals. It also states that features no longer must be used in its original manner. These were all to justify the 3 nominations submitted at the same time. (Vale irrigation nominated an abandoned piped lateral with a sealed headgate and never once described the physical size of the small lateral. Brasada Ranch nominated a buried piped canal, random patches of broken concrete, and a golf cart path trestle that was built in 2000. And Downtown Redmond included a lateral as contributing which was concrete lined with a head gate that COID built in-house during the early 1990's according to page F-54 of the MPD.) None of the 3 nominations had legally contacted and included actual deeded landholders in hearings or preparation in spite of all three have privately owned land. When actively functioning historic canals remain they should be preserved. But COID has made it very clear that they have no intention of preserving history but rather destroying it. The Cline Falls power plant was the oldest local hydroelectric plant and could have shown how basic knowledge of electricity was and how ingenious the first settlers were, but COID has destroyed it for a plaque. Modifications for the fish could have been planned without total destruction of something that can never be built again. COID does not desire preservation but destruction.

In testimony COID mentioned their "survey" of features and segments. The list COID issued is vague and confusing, with no useful information for anyone. Generally National Register listings are used by others to contribute to efforts on other projects or locations, but this cannot be done with this survey. Resource names and locations are not clear. Photos are thumbnail size and maps are not readable. Identification system is random. The survey was done for one purpose alone, to meet requirements of the illegally obtained MOAs. After doing a reconnaissance level drive by viewing of some of the canals, COID sent field crews to survey them. These irrigation crews have no training is historic documentation. Actual data was not listed in the survey. There is no verification how the data was collected or when it was gathered. There is no descriptive and informational data on any resource. COID has not let you review this document because it is so inaccurate. They brag about it, yet hide it from review.

The MPD does not include a description of rip-rap which was an engineering marvel at the time of construction of the Central Oregon and Pilot Butte Canals and deserves recognition. In fact, the MPD states that all canals and lateral are "earthen or concrete" (page E-2) and therefore refuses to acknowledge shotcrete, wooden flumes, or anything built thru solid rock or basalt as occurs in the Bend area. COID intentionally downplayed most historic features with their lack of inclusion in the MPD. COID has repeatedly used derogatory comments to discredit others while making unsubstantiated claims and vague comments. COID's historical records primarily are irrigation company and BOR records as was shown in Bibliographies of their documents. In contrast, the extensive bibliography for Central Oregon Canal –Ward Road to Gosney Road—uses sources from multiple ages of historic information and multiple types of sources and far exceeds the bibliographies of COID. The Central Oregon Canal nomination was written for historic accuracy, and it shows.

June 15, 2018

Re: Support of the Central Oregon Canal— Ward Road to Gosney Road nomination.

Dear SACHP Member,

SACHP has received (or will receive) multiple comments concerning this nomination since COID ("Central Oregon Irrigation District") organized a massive public relations campaign against this historic preservation. COID belittles proponents of this historic resource; degrades the canal itself; and spews unsupported "sound bites" and claims. May I throw a little light on this subject since I am not a homeowner in this historic district? I am very aware of the political battle occurring, but I ask that the SACHP consider only the relevant history-centric criteria in considering this nomination, as required by law. If you do so, you will approve this nomination without delay.

Actual National Register laws should be used to evaluate this nomination. COID only owns one parcel (of less than 1500 feet of the 3.4 miles nominated) of the 45 parcels in the historic district and simply has a non-deeded easement for the canal. COID as a non-deeded easement-holding utility is not the "owner" under either state or federal legal definitions. **Ninety-eight percent of the resident landholders of Central Oregon Canal Historic District nomination—Ward Road to Gosney Road desire this historic designation.** Do not allow a single small landholder to override the historic preservation desires of 44 private landowners. The nomination accurately describes the historic significance of this segment which had previously been declared National Register eligible.

SHPO had given explicit instructions to the Deschutes County HLC in an official meeting on completion of the evaluation form. **This nomination was approved unanimously by the Deschutes County Historic Landmarks Commission (it also received unanimous approval on each and every criteria on the National Register evaluation form from the HLC).** In violation of both CLG and National Register requirements the Deschutes County Planning Department requested the HLC submit emails or testimony about why it should not be approved at the very end of the meeting. What is going on in Deschutes County??

Why the controversy?

Irrigation districts like COID falsely state that they own the canal beds, laterals, and sublaterals. This nomination is private property. In Oregon, water legally belongs to all the people, not to the utilities. Irrigation districts or predecessors sold the land for profit as much as a century ago, and now are attempting to "take" private property without compensation and to destroy it for hydropower profits while undermining the National Register process. Total destruction of all Oregon's historic canal systems is planned. Irrigation districts are desirous of hydropower profit alone. Irrigation districts like COID feel they are "above the law". The opponents for this nomination will financially profit from destruction, either directly from hydropower equipment sales, installation, production, or profit-paid salaries and donations. However there is no benefit for deeded landholders, the individual water-right holders, or the citizens of Oregon. History will be destroyed, wildlife killed, vegetation removed and killed, and the water table drop with COID plans.

Does COID believe in or care about historic preservation? NO! Just last year, to compensate for COID's lack of meeting the existing National Register requirements in its own nominations, they hired a National Parks employee to write three nominations and an MPD which replace federal laws

governing historic resources with unfettered irrigation district control for all system nominations and/or destruction. COID's nominated sites were identified by their lack of hydropower potential. False claims of ownership, elimination of non-contributing features, and nominations which did not meet National Register standards were justified by the COID MPD alone.

COID and Deschutes County governmental departments frequently block public notification or hearings. Citizens are not notified or allowed to participate in hearings concerning their own property. Blocking public hearings allow the complacent government officials to grant permits without considering consequences of the irrigation plans. NEPA and NHPA are violated. After breaking many laws last fall and having the Oregon Department of Justice intervene, Deschutes County and COID again made a mockery of Oregon historic preservation on this nomination. The Deschutes Board of County Commissioner (BOCC) again restricted this nomination to a "work" sessions to intentionally block homeowner and citizen input. The CLG requirements of encouraging historic preservation have been abused numerous times in central Oregon in the last 2-3 years. Profiteers like the irrigation districts, manipulate County non-support votes for citizen nominations, while supporting poorly written and false COID documents repeatedly. The Chairman of the Historic Landmarks Commission is the author and contact for Bureau of Reclamation on all COID Section 106's and MOAs since 2012 and uses her HLC position to garner support for BOR projects (she did recuse herself for the evaluation of this nomination, but reclaimed chairmanship to demand the requested submissions for denial of this nomination).

Who benefits with denial of historic protection on this segment?

Follow the money!!

Nomination of this truly historic segment is opposed by COID and their cohorts because it adversely affects their hydropower profit plans. Yes, both Portland Gas and Electric as well as Pacific Power will also benefit because of state laws requiring purchase of "green" power. "Farmers Conservation Alliance" sells and installs hydropower equipment to the irrigation districts. Last year general managers from COID, Swalley Irrigation, and Tumalo Irrigation traveled to Washington, DC without any public hearings or support, to successfully lobby Senator Merkley, Senator Wyden, and Representative Walden to fund hydropower with federal taxpayer money. The resulting hydro-power bill allows irrigation districts massive amounts of unsupervised federal funding to destroy all historic canal systems (most on privately held land). This bill does not protect private property rights or historic preservation, but gives the irrigation districts their own private slush fund. No true historic preservation is planned for any irrigation system in Oregon. **There is no National Register listing of any canal in Oregon, except for two small segments on the Pilot Butte Canal.** Because no public hearings are held, the honest facts against piping and hydropower are never presented. Permits are now issued without local, state, or federal review. Deeded homeowners are denied knowledge of plans directly affecting them and their property.

This last winter, without public hearings or historic considerations COID destroyed the first power plant in central Oregon (Cline Falls Power Plant—state historic site #35755 – built in 1912). COID's MPD allows "a sign" to replace a "resource" simply to permit destruction. Oregon Land Use Board of Appeals (LUBA) identified COID's purpose for piping as being hydropower profit and not conservation several years ago. COID was instructed to abide by current zoning and land use codes, but has chosen to ignore LUBA. Water measurement has shown that piping and hydropower increases the water removed from the Deschutes River, but with financial donations to Coalition of

the Deschutes and other non-profits, COID "bought" endorsements from those who have never verified the facts. "Fake news" reports in complacent press encourage citizen support while suppressing all facts concerning destruction realities (decrease of water table, killing of wildlife, removal and killing of vegetation, historic significance, decimating of personal property rights, elimination of citizen rights and even road destruction planned) as well as the resulting increase in water and power charges for all residents and businesses of Oregon.

Irrigation districts are eliminating SACHP jurisdiction and over-riding National Register requirements while illegally morphing into a profit-generating hydro-power companies. Financial benefits go to the employees and hired accomplices of the irrigation districts. Hydropower payments have been used illegally for legal, public relations, and lobbying expenses to shove piping and hydropower down Oregon's throat. There has been no decrease in water rights holders billing (actually only two percent of central Oregonians even have water rights). Irrigation districts do not compensate landowners for destruction or taking of private property. Eminent domain is illegal in Oregon for "profit-making" projects like hydropower. **This is a blatant attempt of politicians and municipal utilities to use public funds for private profit.** If COID can "kill" this nomination they will simply obtain development permits without notification of resident landholders, historians, or citizens, and destroy all Oregon irrigation systems. This may be SACHP's last chance to protect any canal.

Central Oregon Canal –Ward Road to Gosney Road Segment nomination

Now another National Register nomination for an irrigation canal has been submitted to the Oregon SACHP. Irrigation districts and their cohorts tried to scuttle it before it reached you. Multiple underhanded techniques were utilized, including massive "fake news" releases in the press, and COID lawyer-pressured removal of this nomination from the agenda of the February SACHP meeting. If the SACHP kowtows to COID's posturing, all historic Oregon canals will be permanently destroyed. At the present time, **there is no other segment of the 48 mile Central Oregon Canal protected by the National Register.** Like the Oregon Trail, each segment of the canal system is unique. Canals are not all "one and the same" as COID likes to claim when they try to convince the unknowing that canals can all be destroyed. Additionally, like the Oregon Trail, this country would not have developed as it did without these key canals. The actual, living historic canals deserve preservation. They cannot be re-located and they cannot be re-built. Those managing them will destroy them. Once destroyed, they are gone forever. Historic resources like the canals are the very reason the National Register listing exists—to protect our history for posterity.

Remember, no law allows SACHP to ignore the criteria for determining historic significance based on an irrigation district's desire to make money from hydropower. Federal funding does not alter the historic merits of the Central Oregon Canal nomination. COID has publically stated that they have no intention of preserving the actual National Register listed Pilot Butte Canal Historic District—Yeoman Road to Cooley Road segment, or any other segment of any canal. Listen to them.

This historic canal deserves listing on the National Register. This nomination is complete, thorough, and correct, and the resource is truly historic. This National Register eligible site should be listed and preserved. **Please approve this nomination.**

Aleta Warren

ALLEN Jason * OPRD

From: ZELLER Tracy * OPRD
Sent: Monday, June 11, 2018 9:11 AM
To: ALLEN Jason * OPRD; CURRAN Chrissy * OPRD; David Harrelson; Deborah Schallert; Dow Beckham, Stephen; JOHNSON Ian * OPRD; Oberst, Mary; OLGUIN Robert * OPRD; Osborne, Julie; Trice Gwendolyn; Tveskov, Mark; ZELLER Tracy * OPRD
Subject: Deb Schallert--Central Oregon Canal nomination

Please see below for an email sent to the SHPO from Aleta Warren asking Deb to recuse herself from the COCHD discussion.

Tracy Zeller, Executive Assistant
National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: A Warren [<mailto:a.warren.bend@gmail.com>]
Sent: Thursday, June 07, 2018 3:46 PM
To: ALLEN Jason * OPRD; JOHNSON Ian * OPRD
Subject: Deb Schallert--Central Oregon Canal nomination

I hereby request that Deb Schallert recuse herself for the review and vote on the Central Oregon Canal--Ward Road to Gosney Road segment nomination for the National Register at the June 22, 2018 meeting in Redmond.

Deb S. did recuse herself for the evaluations for the Pilot Butte Canal Historic District--Yeoman Road to Cooley Road, but she refused to recuse herself for the evaluation of all the COID documents when the SACHP met in Portland. She and COID pushed through 4 sub-par nominations with multiple errors. The 2 documents that were listed on the National Register are an insult to the State of Oregon because of the errors they included. These documents should NOT have been approved.

As a current employee of PGE (Portland Gas and Electric), she and her employer will directly benefit from COID's opposition to this nomination, She should not be involved.

Please make sure that she recuses herself from these deliberations.

In addition, since COID is only an easement holder, they should be allowed no more time to give testimony than anyone else in the room. The preparer of the nomination should go first. and after all else is completed, the preparer should have a chance to rebut and correct all mistatements that are made during testimony. Do not allow preferential treatment for one lone easement holder. Do not repeat all the procedural errors that were committed by the Deschutes County employees.

Thank you,

Aleta Warren

From: JOHNSON Ian * OPRD
To: Karen Watt; ian.johnson@state.or.us
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Vote NO to the Historical Designation of Canals in Central Oregon
Date: Wednesday, October 25, 2017 1:39:06 PM
Attachments: [image001.png](#)

Ms. Watt:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be added to the public record for consideration during the next steps of the process. Our agency website has further details: <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Central-Oregon-Canal-Historic-District.aspx>.

Many people contacting our office have expressed concern about balancing the many needs of the community. Unfortunately, the National Register program does not address these issues. The National Register is a program of the federal National Park Service and is locally administered by our office. The purview of the State Advisory Committee on Historic Preservation, our office, and the National Park Service is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the National Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx.

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Karen Watt [mailto:karen_watt@outlook.com]
Sent: Friday, October 20, 2017 12:24 PM
To: ian.johnson@state.or.us
Subject: Vote NO to the Historical Designation of Canals in Central Oregon

Dear Mr. Ian Johnson,

We are residents of the Three Rivers area and would like to express our disapproval in granting preventing historic designation of the canals fed by the Deschutes River. We are in solidly in favor of piping and covering the canals, where possible, to drastically reduce extensive water loss to seepage and evaporation and prevent tree loss and damage caused by rapidly declining river levels.

As an example, Sisters has enjoyed great accolades for a similar project, thus successfully restoring six miles of habitat and flow of Whychus Creek. We strongly urge you to vote NO on the Historic Designation of canals in Central Oregon in order to restore the health of the Upper Deschutes River. Thank you for your thoughtful consideration.

Karen and Adrian Watt
17299 White Oak Place
Bend OR 97707
541-678-3857
karen_watt@outlook.com

From: CraigHorrell
To: [Matt Martin](mailto:Matt.Martin@deschutes.org)
Subject: RE: Questions RE: Central Oregon Canal Historic District Nomination
Date: Friday, September 01, 2017 8:25:05 AM
Attachments: [image002.png](#)

Will do. Thanks.

From: Matt Martin [<mailto:Matt.Martin@deschutes.org>]
Sent: Friday, September 1, 2017 8:21 AM
To: CraigHorrell
Subject: RE: Questions RE: Central Oregon Canal Historic District Nomination
Good Morning Craig-

I have tentatively planned a special meeting of the landmarks commission on September 19th and work session with the Board of County Commissioners on September 25th. I would be appreciated if your comments were available in advance of the landmarks commission meeting.

-Matt

From: CraigHorrell [<mailto:chorrell@coid.org>]
Sent: Friday, September 01, 2017 7:46 AM
To: Matt Martin <Matt.Martin@deschutes.org>
Subject: RE: Questions RE: Central Oregon Canal Historic District Nomination

Matt,

Yes COID does have a position and I would like a little time to prepare a response to your request. I am taking a little time off for the Holiday. When do you need me to get you something?

Regards,

Craig

From: Matt Martin [<mailto:Matt.Martin@deschutes.org>]
Sent: Thursday, August 31, 2017 2:17 PM
To: CraigHorrell <chorrell@coid.org>
Subject: Questions RE: Central Oregon Canal Historic District Nomination

Hi Craig-

I am preparing materials for Deschutes County review and comment on the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places. In doing so it was suggested that I reach out to you to ask:

1. Do you have a position (in favor/opposed) regarding this nomination?
2. Are there plans to pipe the nominated segment of canal in the foreseeable future?

The Historic Landmarks Commission and/or the Board of County Commissioners may ask so I want to be prepared to respond.

Please let me know if you have any questions.

Matthew Martin, AICP

Associate Planner

Community Development Department

Deschutes County

Office: 541.330.4620/Fax: 541.385.1764

www.deschutes.org/cd

Pauline Word

From: CraigHorrell <chorrell@coid.org>
Sent: Thursday, September 07, 2017 9:07 AM
To: Matt Martin
Cc: Matt Singer; JennyHartzellHill; Shon Rae; LisaLee
Subject: RE: Questions RE: Central Oregon Canal Historic District Nomination
Attachments: matt martin sep.pdf

Matt,

Please see attached response. If you have any questions please call.

Regards,

Craig

From: Matt Martin [mailto:Matt.Martin@deschutes.org]
Sent: Thursday, August 31, 2017 2:17 PM
To: CraigHorrell
Subject: Questions RE: Central Oregon Canal Historic District Nomination

Hi Craig-

I am preparing materials for Deschutes County review and comment on the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places. In doing so it was suggested that I reach out to you to ask:

1. Do you have a position (in favor/opposed) regarding this nomination?
2. Are there plans to pipe the nominated segment of canal in the foreseeable future?

The Historic Landmarks Commission and/or the Board of County Commissioners may ask so I want to be prepared to respond.

Please let me know if you have any questions.

Matthew Martin, AICP
Associate Planner
Community Development Department
Deschutes County
Office: 541.330.4620/Fax: 541.385.1764
www.deschutes.org/cd



Please note that the information in this email is an informal statement made in accordance with DCC 22.20.005 and shall not be deemed to constitute final County action effecting a change in the status of a person's property or conferring any rights, including any reliance rights, on any person.



MEMO

To: Matt Martin, Deschutes County

From: Craig Horrell, COID

Date: September 7, 2017

RE: Historic Nomination of COID Canal

Dear Matt,

Thank you for your inquiry about COID's position regarding the historic nomination of the section of the Central Oregon Canal between Ward Road and Gosney Road. We have not been provided a copy of the nomination, so the following are only our preliminary concerns.

1. Conflict with MPD/other nominations

COID recently completed a multi-year study and preparation of a Multiple Property Document that provided a comprehensive analysis of the historic resources that make up the irrigation systems within our region. That process resulted in a formal MPD approved by the National Park Service, as well as nomination of important and representative sections of the Pilot Butte Canal and Central Oregon Canal at Redmond and Brasada Ranch. Our thorough, systematic process reflected an enormous investment of time and money in order to thoroughly study, document, and preserve important historic resources.

In contrast, the piecemeal "hostile nomination" of COID canal sections by those opposed to conservation projects lack the study, documentation, analysis, and holistic approach that COID has taken. If SHPO allows this piecemeal nomination process to proceed, it will undermine the efficacy and value of the MPD process and discourage entities like COID from investing in thorough study and analysis of historic resources. This is bad policy and bad precedent.

2. COID Ownership

COID owns the canal as well as significant parcels of the adjacent land. COID acquired its interest in the Central Oregon Canal through Carey Act irrigation rights-of-way more than 100 years ago. In addition, COID owns in fee title several parcels of land adjacent to the canal in this section. Despite our ownership, we have yet to receive a copy of the nomination and have not been consulted. Again, SHPO's allowance of hostile nominations without the consent or approval of property owners is seriously problematic and the County should discourage this precedent.

3. Lack of Historic Value

The canal section between Ward and Gosney Roads may be the single section of canal that presents COID with the largest maintenance and operational challenges. Over the years, we have had constant maintenance challenges in this section. We have faced problems with burrowing animals, erosion, and ground collapse that have required COID to add rip rap, perform excavation, add soil, and/or make other modifications on a nearly annual basis. There are at least eight different sections of this stretch that have been substantially rebuilt in the last 10-15 years. In addition, we have repeatedly lined this canal section with collected silt, such that very little of this section reflects its original character. Thus, unlike other sections of the canal, this particular section has less historic value and does not reflect its original construction. Instead, this is a section that has been constantly altered and worked on to try to address the thorny geology and other conditions that present ongoing maintenance challenges.

This raises another concern, which is that over the years COID has repeatedly had to make emergency repairs to this section of canal. To the degree that historic nomination might preclude or impair our ability to make rapid emergency repairs (i.e., by adding large amounts of rip rap or backfill materials in the event of a collapse or breach), this could present a significant danger of harm to property or safety.

4. Conflict with Conservation

In addition, we are implementing a system improvement plan to eventually pipe most of the Central Oregon Canal. This piping will allow COID to obtain substantial water conservation savings, allowing us to shore up flow in the Deschutes River, assist junior water rights holders, and meet the habitat demands of endangered and threatened species. SHPO seems to take a myopic view about historic nominations, without consideration of competing and important community values. The risk is that the historic nomination process will become a tool for obstruction of conservation, potentially tying up conservation projects in needless red tape. We are concerned that this particular nomination has very little to do with the historic value of this section of canal, and much more to do with the desire of a few property owners to preserve a water feature that they enjoy. As the County comments on this proposal, it should consider the larger context and the overall community benefit that comes from water conservation projects. While we do not have a present funding source to pipe the Ward to Gosney Roads section, COID does anticipate seeking such funding and, if successful, will look to pipe this section at some point in the future.

We trust that the County recognizes COID's appreciation and commitment to historic preservation. In large and small ways, COID celebrates its history and role in the development of Central Oregon. As an example, as part of the demolition at the old Cline Falls hydro facility, we have preserved sections of the original structure and are designing a kiosk to tell the story of that noteworthy site. Our MPD and nominations of sections of the Central Oregon and Pilot Butte canals were meaningful efforts to celebrate and preserve important components of our history. At the same time, just as the telegraph eventually gave way to telephone lines and fiber optic cable, our community must recognize that open, unlined, leaky canals are not the most efficient or appropriate way to convey water across lava rock in a high desert.

Pauline Word

From: Matt Martin
Sent: Friday, September 15, 2017 1:36 PM
To: 'Horting-Jones, Christine'
Subject: RE: FW: Public Participation in the HLC Review of Central Oregon Canal Nomination

Thanks, Chris. A aspect of the meeting will also be to prepare Sharon assuming you intend on recusing yourself as previously discussed. See you Tuesday.

-matt

From: Horting-Jones, Christine [mailto:chortingjones@usbr.gov]
Sent: Friday, September 15, 2017 1:31 PM
To: Matt Martin
Subject: Re: FW: Public Participation in the HLC Review of Central Oregon Canal Nomination

ditto for me - post-train. mtg is okay by me

On Fri, Sep 15, 2017 at 1:29 PM, Matt Martin <Matt.Martin@deschutes.org> wrote:

Hi Chris-

I'm just following up on this message. Sharon is available after the training on Tuesday.

Thanks,
matt

From: Sharon Leighty [mailto:sharon@sharonleightyconsulting.com]
Sent: Tuesday, September 12, 2017 8:10 PM
To: Matt Martin <Matt.Martin@deschutes.org>
Subject: RE: Public Participation in the HLC Review of Central Oregon Canal Nomination

Hi Matt,

I could meet on 9/19 after training but need to gone by 2:30.

Sharon

Sharon Leighty & Co.

777 NW Wall #306

Bend, OR 97703

541-408-5060

www.sharonleightyconsulting.com

Member, Association of Philanthropic Counsel

From: Matt Martin [<mailto:Matt.Martin@deschutes.org>]

Sent: Tuesday, September 12, 2017 4:02 PM

To: Christine Horting-Jones; Sharon Leighty (sharon@sharonleightyconsulting.com)

Subject: Public Participation in the HLC Review of Central Oregon Canal Nomination

Hi Chris and Sharon-

I have spoken with Pat Kliewer, preparer of the nomination of a segment of the Central Oregon Canal for the national register historic places and she indicated she and several of the property owners are interested in commenting at the meeting on October 2nd when the HLC is scheduled to review the nomination. I informed her that I will relay this information to the commission but it is ultimately the at the discretion of the commission whether or not to take comments. I assume COID would also be interested in commenting. In light of this, I think it would be beneficial to talk and/or meet to discuss procedure/process in preparation for the meeting. Perhaps we meet briefly before or after the training on Sept. 19th. I am also open to other dates/times. We have plenty of time to get prepared so no urgency at this point. Just want to be prepared.

Matthew Martin, AICP

Associate Planner

Community Development Department

Deschutes County

Office: 541.330.4620/Fax: 541.385.1764

www.deschutes.org/cd



Please note that the information in this email is an informal statement made in accordance with DCC 22.20.005 and shall not be deemed to constitute final County action effecting a change in the status of a person's property or conferring any rights, including any reliance rights, on any person.

--

Chris Horting-Jones, Archaeologist
Bend Field Office, Bur. Reclamation
1375 SE Wilson Ave. #100
Bend, OR 97702
541-389-6541 ext. 236
cell: 541-410-9895



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
(541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

MEMORANDUM

DATE: September 28, 2017
TO: Deschutes County Board of Commissioner
FROM: Matthew Martin, AICP, Senior Planner
RE: Central Oregon Canal Nomination for the National Register of Historic Place

The purpose of this memorandum is to provide a summary related to the Nomination of a segment of the Central Oregon Canal for the National Register of Historic Places to assist the Board of Commissioners (Board) in determining how or if to submit comments. This summary includes:

- A. Nomination Overview
- B. Nomination Review Schedule
- C. Canal Ownership/Easement

A. OVERVIEW

A nomination to list a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places has been submitted to the Oregon State Historic Preservation Office. The proposed district is located southeast of the City of Bend and generally bound by Ward Road to the west and Gosney Road to the east. The materials received by the County from the SHPO include:

- August 16, 2017, Cover Letter from SHPO (Attachment 1)
- Agenda for the October 20, 2017 Meeting of the State Advisory Committee on Historic Preservation (Attachment 2)
- July 21, 2017, Memo from SHPO to Patricia Kliewer, Preparer (Attachment 3)
- National Register Nomination Evaluation Sheet (Attachment 4)
- National Register of Historic Placer Registration Form (nomination)¹

As part of the review of the nomination, the local Certified Local Government (CLG) is afforded the opportunity to review and comment on the nomination.

¹ Due to the size of the electronic version of the National Register of Historic Places Registration Form (16MB) it is not attached. The document can be found at the following link:
http://www.oregon.gov/oprd/HCD/NATREG/docs/sachp_docs/CentralOregonCanalHD_SACHP_Draft.pdf

B. SCHEDULE

- 10/2/17** The Deschutes County Historic Landmarks Commission (HLC) is scheduled to review the nomination and consider comments or recommendations on the proposal.
- 10/4/17** A work session with the Board is scheduled to discuss the nomination. Staff will provide a verbal report on any comments and recommendations the HLC provides. The Board can determine what, if any, comments or action to take.
- 10/20/17** The State Advisory Committee on Historic Preservation (SACHP) is scheduled to review the nomination. For comments to be considered by the SACHP, responses from the County must be submitted in advance of this meeting.
- Next Steps** Following the meeting on October 20th, the SACHP will make a recommendation to the State Historic Preservation Officer to approve or deny the document, or choose to table the issue for a future meeting. If recommended for approval or denial, the document will be held by SHPO for a 90-day comment period. The State Historic Preservation Officer will then make a recommendation to the National Park Service (NPS), the federal agency responsible for the administration of the National Register of Historic Places. The NPS will review the document for 45 calendar days.

C. CANAL OWNERSHIP/EASEMENT

The Central Oregon Canal is operated by the Central Oregon Irrigation District (COID) via an easement. The regulations applicable to the National Register of Historic Places state:

“The term owner or owners means those individuals, partnerships, corporations or public agencies holding fee simple title to property. Owner or owners does not include individuals, partnerships, corporations or public agencies holding easements or less than fee interests (including leaseholds) of any nature.” (36 CFR 60.3)

Based on this definition, the owners the underlying real property are the owners of the canal and not COID. Nevertheless, Craig Horrell, COID Director, submitted a memo on September 7, 2017, addressing the nomination (Attachment 6).

Attachments:

1. 8/16/17 Cover Letter from SHPO
2. Agenda for the 10/20/17 Meeting of the SACHP
3. 7/21/17 Memo from SHPO to Patricia Kliewer, Preparer
4. National Register Nomination Evaluation Sheet
5. 9/7/17 Memo from Craig Horrell, COID

Pauline Word

From: Nick Lelack
Sent: Wednesday, October 04, 2017 4:55 PM
To: 'Craig Horrell (chorrell@coid.org) (chorrell@coid.org)'; 'pkliwer@hotmail.com'
Cc: Matt Martin
Subject: RE: Central Oregon Canal - Board Tour

Craig & Pat:

I have time reserved for 2 of the 3 commissioners (Commissioner Baney is not available) for next Tuesday, Oct. 10 from 10:00-12:30 if that works for you or whomever I/we should coordinate with.

Thank you.

Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

From: Nick Lelack
Sent: Wednesday, October 04, 2017 4:26 PM
To: Craig Horrell (chorrell@coid.org) (chorrell@coid.org) ; 'pkliwer@hotmail.com'
Cc: Matt Martin
Subject: Central Oregon Canal - Board Tour
Importance: High

Hi Craig & Pat:

I understand you are on different sides of the proposal to designate a portion (Ward Road to Gosney Road Segment) of the Central Oregon Canal as a historic district, but I am reaching to both of you per the Board of County Commissioners' request to tour some or all of the proposed district next Tuesday, October 10.

I do not have specific times yet from commissioners since we just met this afternoon to introduce the nomination to them. If two or more commissioners participate, it will be a noticed public meeting, though I do not expect many, if any, members of the public to attend.

I am writing to ask you who I should contact to conduct the tour or least grant access to walk along the canal.

Thank you for any assistance you may provide. We appreciate it.

Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

Pauline Word

From: CraigHorrell <chorrell@coid.org>
Sent: Thursday, October 05, 2017 12:22 PM
To: Nick Lelack
Cc: Matt Martin
Subject: Re: 10th meeting

Yes you are good to go.

Sent from my iPhone

> On Oct 5, 2017, at 12:17 PM, Nick Lelack <Nick.Lelack@deschutes.org> wrote:

>

> Thanks Craig. To clarify, are you fine with the approach that we drive county vehicles on the canal rider road?

>

> Nick Lelack, AICP, Director

> Deschutes County Community Development Department

> 117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005

> Tel: (541) 385-1708 | Mobile: (541) 639-5585

>

>

> -----Original Message-----

> From: CraigHorrell [mailto:chorrell@coid.org]

> Sent: Thursday, October 05, 2017 10:57 AM

> To: Nick Lelack <Nick.Lelack@deschutes.org>

> Cc: Matt Martin <Matt.Martin@deschutes.org>

> Subject: Re: 10th meeting

>

> Nick,

>

> That sounds good. Thanks for clarifying. We are fine with that approach. Let the commission know that they can call me if they have any questions.

>

> Craig

>

> Sent from my iPhone

>

>> On Oct 5, 2017, at 10:54 AM, Nick Lelack <Nick.Lelack@deschutes.org> wrote:

>>

>> Hi Craig,

>>

>> I have not heard from Pat. My challenge is scheduling commissioners for a tour and their conflicting schedules, etc., particularly on short notice at their request/direction. Assuming Pat does not respond, can we drive the canal road or just walk portions of it or... without COID on site and/or without property owner consent? Obviously, we cannot and will not trespass, especially for a public meeting with elected officials - as you know.

>>

>> Thank you.

>>

>> Nick Lelack, AICP, Director

>> Deschutes County Community Development Department
>> 117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
>> Tel: (541) 385-1708 | Mobile: (541) 639-5585

>>
>> -----Original Message-----

>> From: Matt Martin
>> Sent: Thursday, October 05, 2017 8:07 AM
>> To: Nick Lelack <Nick.Lelack@deschutes.org>
>> Subject: FW: 10th meeting

>>
>>
>>
>> -----Original Message-----

>> From: CraigHorrell [mailto:chorrell@coid.org]
>> Sent: Thursday, October 05, 2017 7:33 AM
>> To: Matt Martin <Matt.Martin@deschutes.org>
>> Subject: 10th meeting

>>
>> Matt. I forgot that the 10th is our board meeting. No one from COID is available until after 2:30. I feel strongly that if
pat is present COID should be as well.

>>
>> Sent from my iPhone

From: Sharon Ross
Sent time: 10/05/2017 04:50:34 PM
To: Nick Lelack
Subject: RE: Central Oregon Canal Tour: Tues., Oct. 10, 10:00-12:30

Nick – there is a chance Commissioner Henderson has to be out for a meeting that morning. He would really like to have Craig Horrell at the tour – is there another date/time that would work?

From: Nick Lelack
Sent: Thursday, October 05, 2017 4:19 PM
To: Tom Anderson <Tom.Anderson@deschutes.org>
Cc: Sharon Ross <Sharon.Ross@deschutes.org>; Matt Martin <Matt.Martin@deschutes.org>; Peter Gutowsky <Peter.Gutowsky@deschutes.org>; Craig Horrell (chorrell@coid.org) (chorrell@coid.org) <chorrell@coid.org>
Subject: Central Oregon Canal Tour: Tues., Oct. 10, 10:00-12:30

Tom:

bcc: BOCC

Per the Board's request, we will conduct a tour of the Central Oregon Canal segment (Ward Road to Gosney Road) proposed for historic district nomination next Tues., Oct. 10 from 10:00 a.m. to 12:30 p.m., including travel time. I expect we will meet in front of the Deschutes Services Building at 10:00 a.m.

Unfortunately, COID representatives are not available to participate in the tour as they have a scheduled board meeting. However, they have granted access to us to drive along the canal road. COID Executive Director Craig Horrell is cc'd on this message. I also sent an email to Pat Kliewer who prepared the nomination, but I have not heard back from her.

I will coordinate with Sharon Ross to prepare a public meeting notice to post/publish per County procedures. The tour may just consist of staff and Commissioners driving the 3.4 mile-segment with stops along the way.

Please let me/us know if you have any questions.

Thank you.

Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

From: [Nick Lelack](#)
To: [CraigHorrell](#)
Cc: [LarryRoofener](#); [Matt Martin](#); [Peter Gutowsky](#)
Subject: Re: Tour Tuesday
Date: Monday, October 09, 2017 6:09:40 PM

Thank you very much. Will let you know if/when another Commissioner wants to tour the canal.

Nick Lelack, AICP
Deschutes County
Community Development Director
541-639-5585

Sent from my iPhone

On Oct 9, 2017, at 6:08 PM, CraigHorrell <chorrell@coid.org> wrote:

We will have gate open. Thanks.

Sent from my iPhone

On Oct 9, 2017, at 6:06 PM, Nick Lelack
<Nick.Lelack@deschutes.org> wrote:

FYI -Matt Martin and I will tour the canal tomorrow at 10:00 am with Commissioner Henderson. Not a public meeting with just 1 Commissioner so no other notice is provided.

Nick Lelack, AICP
Deschutes County
Community Development Director
541-639-5585

Sent from my iPhone

From: [Nick Lelack](#)
To: [Craig Horrell \(chorrell@coid.org\)](mailto:chorrell@coid.org)
Cc: [Matt Martin](#)
Subject: Tour 2
Date: Wednesday, October 11, 2017 2:32:53 PM

Hi Craig,

Commissioner DeBone is interested in a tour tomorrow or Friday of the canal. His schedule is mostly open. Are you available?

In addition, during the Board's work session this afternoon we briefly discussed COID's historic preservationist's findings/evaluation of this segment of the canal. We understand COID completed it's multiple property evaluation. Were the 2 segments in Redmond and in Crook County the best segments to be nominated for designation - and there were others - such as this, but not as "good" so they were not proposed, or were they they only segments that qualified for designation?

In other words, do we have conflicting historic preservation opinions of this section of the canal, are they consistent, or do we know?

Thank you.

Nick Lelack, AICP
Deschutes County
Community Development Director
541-639-5585

Sent from my iPhone

From: [Nick Lelack](#)
To: "CraigHorrell"
Cc: [Matt Martin](#); [Matt Singer](#)
Subject: tour tomorrow at 2:15?
Date: Wednesday, October 11, 2017 4:54:51 PM
Importance: High

Craig:

Commissioner DeBone just confirmed he is available for the tour tomorrow at 2:00 p.m. Does that work for you or can you have the gates open for us? Yesterday, several neighbors attended/participated based on our tentative plan last week. Would be great if you or another staff familiar with this segment of the canal is present. Some of the neighbors were present at today's Board work session when the tour with Commissioner DeBone was discussed.

My best guess is that we leave the County offices a few minutes after 2:00 and arrive by 2:15 p.m. if that works for you/COID.

Thank you.

Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

-----Original Message-----

From: CraigHorrell [<mailto:chorrell@coid.org>]
Sent: Wednesday, October 11, 2017 2:58 PM
To: Nick Lelack <Nick.Lelack@deschutes.org>
Cc: Matt Martin <Matt.Martin@deschutes.org>; Matt Singer <matt.singer@hklaw.com>
Subject: RE: Tour 2

I am available tomorrow afternoon from 2:00 on.

Yes there are conflicting historic reports. Pat is "cherry picking" based on special interest. While COID has spent over four years completing a comprehensive evaluation considering all factors.

Craig

-----Original Message-----

From: Nick Lelack [<mailto:Nick.Lelack@deschutes.org>]
Sent: Wednesday, October 11, 2017 2:33 PM
To: CraigHorrell <chorrell@coid.org>
Cc: Matt Martin <Matt.Martin@deschutes.org>
Subject: Tour 2

Hi Craig,

Commissioner DeBone is interested in a tour tomorrow or Friday of the canal. His schedule is mostly open. Are you available?

In addition, during the Board's work session this afternoon we briefly discussed COID's historic preservationist's findings/evaluation of this segment of the canal. We understand COID completed it's multiple property evaluation. Were the 2 segments in Redmond and in Crook County the best segments to be nominated for designation - and there were others - such as this, but not as "good" so they were not proposed, or were they they only segments that

From: [Nick Lelack](#)
To: "CraigHorrell"
Cc: [Matt Martin](#); [Matt Singer](#)
Subject: RE: Tour 2
Date: Wednesday, October 11, 2017 3:16:14 PM

Thanks Craig. I just left you a voice message. No need to return my call. I will coordinate with Commissioner DeBone for the tour tomorrow.

Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

-----Original Message-----

From: CraigHorrell [<mailto:chorrell@coid.org>]
Sent: Wednesday, October 11, 2017 2:58 PM
To: Nick Lelack <Nick.Lelack@deschutes.org>
Cc: Matt Martin <Matt.Martin@deschutes.org>; Matt Singer <matt.singer@hkllaw.com>
Subject: RE: Tour 2

I am available tomorrow afternoon from 2:00 on.

Yes there are conflicting historic reports. Pat is "cherry picking" based on special interest. While COID has spent over four years completing a comprehensive evaluation considering all factors.

Craig

-----Original Message-----

From: Nick Lelack [<mailto:Nick.Lelack@deschutes.org>]
Sent: Wednesday, October 11, 2017 2:33 PM
To: CraigHorrell <chorrell@coid.org>
Cc: Matt Martin <Matt.Martin@deschutes.org>
Subject: Tour 2

Hi Craig,

Commissioner DeBone is interested in a tour tomorrow or Friday of the canal. His schedule is mostly open. Are you available?

In addition, during the Board's work session this afternoon we briefly discussed COID's historic preservationist's findings/evaluation of this segment of the canal. We understand COID completed it's multiple property evaluation. Were the 2 segments in Redmond and in Crook County the best segments to be nominated for designation - and there were others - such as this, but not as "good" so they were not proposed, or were they they only segments that qualified for designation?

In other words, do we have conflicting historic preservation opinions of this section of the canal, are they consistent, or do we know?

Thank you.

Nick Lelack, AICP
Deschutes County
Community Development Director
541-639-5585

Pauline Word

From: Matt.Singer@hklaw.com
Sent: Thursday, October 12, 2017 3:57 PM
To: Nick Lelack
Cc: Matt Martin; chorrell@coid.org; srae@coid.org
Subject: Re: COID - Comments on Ward-to-Gosney Nomination
Attachments: image001.jpg

Thanks. We would appreciate a copy of the HLC letter when it is available for you to share.

Matt Singer
Holland & Knight
Mobile: 907.830.0790

On Oct 12, 2017, at 3:56 PM, Nick Lelack <Nick.Lelack@deschutes.org<mailto:Nick.Lelack@deschutes.org>> wrote:

Matt,

Thank you very much. Timely as we are also sending to the BOCC this afternoon our HLC's letter to SHPO. We will be sure to share it with our HLC as well.

Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

From: Matt.Singer@hklaw.com<mailto:Matt.Singer@hklaw.com> [mailto:Matt.Singer@hklaw.com]
Sent: Thursday, October 12, 2017 3:49 PM
To: Nick Lelack <Nick.Lelack@deschutes.org<mailto:Nick.Lelack@deschutes.org>>; Matt Martin <Matt.Martin@deschutes.org<mailto:Matt.Martin@deschutes.org>>
Cc: chorrell@coid.org<mailto:chorrell@coid.org>; srae@coid.org<mailto:srae@coid.org>
Subject: FW: COID - Comments on Ward-to-Gosney Nomination

Nick and Matt,

Attached are COID's comments sent to SHPO today. If appropriate, please share with the County Commissioners and HLC.

Matthew Singer | Holland & Knight
Partner
Holland & Knight LLP
Alaska | Oregon
Mobile 907.830.0790 | Office 907.263.6318 matt.singer@hklaw.com<mailto:matt.singer@hklaw.com> |
www.hklaw.com<http://www.hklaw.com/>

Add to address book<http://www.hklaw.com/vcard.aspx?user=masinger> | View professional biography<http://www.hklaw.com/id77/biosmasinger>

<image001.jpg>

Government/Government Relations

"Law Firm of the Year"

From: Huston, Jeanine M (ANC - X56335)

Sent: Thursday, October 12, 2017 2:58 PM

To: Singer, Matt (ANC - X56318, POR - X56318) <Matt.Singer@hklaw.com<mailto:Matt.Singer@hklaw.com>>

Subject: COID - Comments on Ward-to-Gosney Nomination

Jeanine Huston | Holland & Knight

Sr Legal Secretary

Holland & Knight LLP

601 West Fifth Avenue, Suite 700 | Anchorage, AK 99501 Phone 907.263.6335 | Fax 907.263.6345

jeanine.huston@hklaw.com<mailto:jeanine.huston@hklaw.com> | www.hklaw.com<http://www.hklaw.com/>

NOTE: This e-mail is from a law firm, Holland & Knight LLP ("H&K"), and is intended solely for the use of the individual(s) to whom it is addressed. If you believe you received this e-mail in error, please notify the sender immediately, delete the e-mail from your computer and do not copy or disclose it to anyone else. If you are not an existing client of H&K, do not construe anything in this e-mail to make you a client unless it contains a specific statement to that effect and do not disclose anything to H&K in reply that you expect it to hold in confidence. If you properly received this e-mail as a client, co-counsel or retained expert of H&K, you should maintain its contents in confidence in order to preserve the attorney-client or work product privilege that may be available to protect confidentiality.

From: [Nick Lelack](#)
To: [Matt Martin](#)
Subject: 45. FW: Letter from SHPO re: National Parks Listing of COID's MPD
Date: Tuesday, March 20, 2018 11:16:42 AM
Attachments: [Lt from SHPO Official Listing in the National Parks the MPD 7.31.17.pdf](#)
[image001.png](#)
[image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)



Nick Lelack, AICP | Director
DESCHUTES COUNTY COMMUNITY DEVELOPMENT
117 NW Lafayette Avenue | Bend, Oregon 97703
Tel: (541) 385-1708 | Cell: (541) 639-5585



Enhancing the lives of citizens by delivering quality services in a cost-effective manner.

From: JennyHartzellHill [mailto:Jenny@coid.org]
Sent: Friday, October 13, 2017 2:15 PM
To: Nick Lelack
Cc: CraigHorrell
Subject: Letter from SHPO re: National Parks Listing of COID's MPD

Mr. LeLack,

Per instruction from Craig Horrell I am emailing a copy of the letter COID received from SHPO regarding the official listing of the Multiple Property Document.

If you need additional information, please let us know.

Kindly,

Jenny Hartzell-Hill
Executive Assistant
Central Oregon Irrigation District
1055 SW Lake Court
Redmond OR 97756
Phone: 541-548-6047
Direct Line: 541-504-7582



qualified for designation?

In other words, do we have conflicting historic preservation opinions of this section of the canal, are they consistent, or do we know?

Thank you.

Nick Lelack, AICP
Deschutes County
Community Development Director
541-639-5585

Sent from my iPhone

From: [Nick Lelack](#)
To: [Matt Martin](#)
Subject: 40. FW: SHPO decision?
Date: Tuesday, March 20, 2018 11:15:47 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)



Nick Lelack, AICP | Director
DESCHUTES COUNTY COMMUNITY DEVELOPMENT
117 NW Lafayette Avenue | Bend, Oregon 97703
Tel: (541) 385-1708 | Cell: (541) 639-5585



Enhancing the lives of citizens by delivering quality services in a cost-effective manner.

From: CraigHorrell [mailto:chorrell@coid.org]
Sent: Monday, October 23, 2017 5:06 PM
To: Nick Lelack
Cc: Matt Singer
Subject: Re: SHPO decision?

They tabled it until February meeting. However it appears there are ready to approve it with minor changes from pat. No input from district. We are working on next steps.

Craig

Sent from my iPhone

On Oct 23, 2017, at 5:03 PM, Nick Lelack <Nick.Lelack@deschutes.org> wrote:

We have not heard what decision SHPO made regarding the canal nomination/designation on Friday. Do you know?
Nick Lelack, AICP, Director
Deschutes County Community Development Department
117 NW Lafayette, Ave. | P.O. Box 6005 | Bend, Oregon 97708-6005
Tel: (541) 385-1708 | Mobile: (541) 639-5585

From: [Peter Gutowsky](#)
To: "Ian.johnson@oregon.gov"
Cc: [Nick Lelack](#); [Zechariah Heck](#); [Matt Martin](#)
Subject: Re: State Historic Preservation Nominations / Roles and Responsibilities
Date: Wednesday, December 27, 2017 10:03:08 AM

Ian,

I hope this email finds you well. Happy Holidays.

In January, at your convenience, I would like to schedule a conference call with your staff and mine to discuss nominations to the National Register of Historic Places. As you know, Pat Kliewer is nominating a section of COID's canal to the National Register. Our HLC and Board previously recommended denial. It will be helpful for us to know how SHPO handles recommendations of local decision makers. Additionally, it was brought to our attention that there is a federal law that may be applicable to this type of process:

- <https://www.law.cornell.edu/uscode/text/54/302504>

Thanks.

Peter Gutowsky, AICP
Planning Manager
Deschutes County Community Development Department
117 NW Lafayette
Bend, OR 97701
Tel: (541) 385-1709
Web: www.deschutes.org/cdd

From: JOHNSON Ian * OPD
To: [Peter Gutowsky](#)
Cc: [Nick Lelack](#); [Zechariah Heck](#); [Matt Martin](#)
Subject: RE: State Historic Preservation Nominations / Roles and Responsibilities
Date: Thursday, December 28, 2017 10:13:27 AM
Attachments: [image001.png](#)
[dhpa.pdf](#)

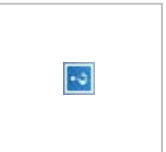
Hello Peter, thanks for contacting me. I had planned to contact you and your staff about this very topic in the New Year. At this time I am fairly wide open the first two weeks of January. Please propose some days and times that work for you and your staff.

As you know we made a number of administrative errors in the last mailing for this district. We've corrected those this time around and will not make them again. We can discuss this further when we chat in January.

Yes, you are correct. There is an objection process for local governments. For our discussion, I have attached a copy of the federal law, as well as the relevant excerpted section, see below under my signature line. The Code of Federal Regulations that governs appeals, referenced in the law, is 36CFR60.12. You can find that here: <https://www.gpo.gov/fdsys/granule/CFR-2012-title36-vol1/CFR-2012-title36-vol1-part60/content-detail.html>.

In our collective memory this provision has not been used before in Oregon. I currently have a call into NPS to clarify a couple of points, including if the objection filed by the CLG and chief elected official must be substantive, meaning based on the National Register Criteria or not. I will press to get answers before our meeting.

Thanks.
Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

Excerpt:

Section 302504. Participation of certified local governments in National Register nominations. 302504. Participation of certified local governments in National Register nominations (a) NOTICE.— Before a property within the jurisdiction of a certified local government may be considered by a State to be nominated to the Secretary for inclusion on the National Register, the State Historic Preservation Officer shall notify the owner, the applicable chief local elected official, and the local historic preservation commission. (b) REPORT.—The local historic preservation commission, after reasonable opportunity for public comment, shall prepare a report as to whether the property, in the Commission's opinion, meets the criteria of the National Register. Within 60 days of notice from the State Historic Preservation Officer, the chief local elected official shall transmit the report of the commission and the recommendation of the local official to the State Historic Preservation Officer. (c) RECOMMENDATION.— (1) PROPERTY NOMINATED TO NATIONAL REGISTER.—Except as provided in paragraph (2), after receipt of the report and recommendation, or if no report and recommendation are received within 60 days, the State shall make the nomination pursuant to section 302104 of this title. The State may expedite the process with the concurrence of the certified local government. (2) PROPERTY NOT NOMINATED TO NATIONAL REGISTER.—If both the commission and the chief local elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action, unless, within 30 days of the receipt of the

recommendation by the State Historic Preservation Officer, an appeal is filed with the State. If an appeal is filed, the State shall follow the procedures for making a nomination pursuant to section 302104 of this title. Any report and recommendations made under this section shall be included with any nomination submitted by the State to the Secretary

From: Peter Gutowsky [mailto:Peter.Gutowsky@deschutes.org]

Sent: Wednesday, December 27, 2017 10:03 AM

To: JOHNSON Ian * OPRD

Cc: Nick Lelack; Zechariah Heck; Matt Martin

Subject: Re: State Historic Preservation Nominations / Roles and Responsibilities

Ian,

I hope this email finds you well. Happy Holidays.

In January, at your convenience, I would like to schedule a conference call with your staff and mine to discuss nominations to the National Register of Historic Places. As you know, Pat Kliewer is nominating a section of COID's canal to the National Register. Our HLC and Board previously recommended denial. It will be helpful for us to know how SHPO handles recommendations of local decision makers. Additionally, it was brought to our attention that there is a federal law that may be applicable to this type of process:

- <https://www.law.cornell.edu/uscode/text/54/302504>

Thanks.

Peter Gutowsky, AICP

Planning Manager

Deschutes County Community Development Department

117 NW Lafayette

Bend, OR 97701

Tel: (541) 385-1709

Web: www.deschutes.org/cdd

From: [Peter Gutowsky](#)
To: "chorrell@coid.org"
Subject: Re: Central Oregon Canal Nomination / SHPO Update
Date: Monday, February 05, 2018 3:27:02 PM

Craig,

I left you a voice message this afternoon on this topic that exceeded your phone's capacity. FYI.

Peter Gutowsky, AICP

Planning Manager

Deschutes County Community Development Department

117 NW Lafayette

Bend, OR 97701

Tel: (541) 385-1709

Web: www.deschutes.org/cdd

From: Peter Gutowsky

Sent: Monday, February 5, 2018 3:25 PM

To: David Doyle ; Adam Smith ; Nick Lelack ; Zechariah Heck ; Matt Martin

Subject: Re: Central Oregon Canal Nomination / SHPO Update

Ian Johnson from SHPO called this afternoon with an update. Admittedly, it was a convoluted conversation, reflecting the State's emerging process for handling appeals of National Nominations to the Historic Register.

- Likely later today, SHPO will forward a letter explaining that the timeline for Deschutes County to respond to Kliewer/Richter's appeal is due tomorrow. SHPO recognizes that it is procedurally impossible to schedule a meeting with the HLC and Board, let alone receive a decision, by that deadline. Without a response from the County, the appeal becomes irrelevant. Tomorrow's deadline stems from the date the County issued its local objection last fall. SHPO admittedly processed the appeal period in error.
- The applicant can file a "significant" modification of the nomination to SHPO. "Significant" incidentally is defined in ORS. Doing so essentially treats the modification as a new application. SHPO will send notice to Deschutes County, inviting the HLC and Board to comment on the nomination within sixty days.
- If both the HLC and Board object to the nomination, SHPO is obligated to remove the nomination item from the State Advisory Committee on Historic Preservation's forthcoming agenda.
- Interestingly, if Kliewer/Richter appeal, SHPO is obligated to place the nomination back on SACHP's agenda for a formal review. As I understand it, local government does not have the ability to "veto" a nomination. It all circles back to SACHP to render a decision/recommendation to the Keeper

I will schedule a conference call with Ian in mid-March if a modification is initiated.

Stay tuned.

Peter Gutowsky, AICP

Planning Manager

Deschutes County Community Development Department

117 NW Lafayette

Bend, OR 97701

Tel: (541) 385-1709

Web: www.deschutes.org/cdd



For Recording Stamp Only

Deschutes County Board of Commissioners
1300 NW Wall St., Bend, OR 97703-1960
(541) 388-6570 - Fax (541) 385-3202 - www.deschutes.org

MINUTES OF WORK SESSION

DESCHUTES COUNTY BOARD OF COMMISSIONERS

Allen Conference Room

Wednesday, October 4, 2017

Present were Commissioners Anthony DeBone and Phil Henderson. Commissioner Tammy Baney was absent. Also present were Tom Anderson, County Administrator; Erik Kropp, Deputy County Administrator; David Doyle, County Counsel; Christopher Ogren, Administrative Intern; and Sharon Ross, Board Executive Secretary. One representative of the media was in attendance as well as several citizens.

CALL TO ORDER: *Vice-Chair DeBone opened the meeting at 1:32 p.m.*

ACTION ITEMS

1. Veteran's Service Office – Increased State Funding

Erik Kropp, Deputy County Administrator and Keith McNamara, Veterans Services Officer presented the item. Mr. Kropp reported the Veteran's Services office is funded through revenues from the State of Oregon Department of Veterans Affairs and the County's General Fund. After the budget adoption this year, the state increased funding for county veteran services offices throughout the state and the portion to Deschutes County is \$65,283. To account for the funding, the counties are required to reflect on planned expenditures. Mr. McNamara noted a few options for the funding would be to extend services to the La Pine area, provide assistance with transportation to medical appointments, upgrade office technology to keep up with electronic claims, and development of a social media campaign and a county benefits expo for veterans. The additional funds will be presented through a budget adjustment to this fiscal year. This increase in funding is expected annually. Another item to

announce was the office will also start outreach at the Veterans Outreach Ranch tomorrow. Veterans come to work on the ranch and do not live there. Mr. McNamara reported the nursing care beds should be open for veterans needing care by the end of the month.

Commissioner DeBone commented on the social media and outreach and suggested including a branding effort that will resonate with the veteran's community. County Administrator Anderson noted the core function of the office is to assist veterans with benefits and at some point it may be appropriate to look at what our veterans office does and go beyond assistance for benefits. Another item of interest for the office is to have website access for veterans for VA claims and provide an e-benefits class for veterans. Discussion held on extension of services and if there is a need for additional staffing. Mr. Kropp commented maybe an added limited duration hire could be considered at this time.

2. **Discussion and Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places**

This presentation was audio recorded. Matt Martin presented explaining a nomination to list a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places has been submitted to the Oregon State Historic Preservation Office and asked the Board for their opinion on whether or not to comment. There is a 60-day comment period and Deschutes County as a certified local government is afforded comment. The Historic Landmarks Commission has received testimony and recommendation will be provided to the National Register at the National Parks Service for final decision. The canal itself is operated and managed by Central Oregon Irrigation District but is asserted by adjacent homeowners to be located within an easement.

Mr. Martin noted an error in providing notice to the County; the required notice was not provided to Chair Baney but was incorrectly sent to the City of Bend Mayor. This error can extend the comment period by 60-days.

Commissioner DeBone commented that the last time the the Board commented on a historic designation (Pilot Butte canal), the County's position was not considered or even acknowledged. **Discussion held on historical designations, maintenance and repair. Any maintenance to the structure requires review by the historic landmarks commission.** The designation is for the canal feature and bed and banks not the water itself. Discussion held on public access points. There are 35 properties that will be affected.

Commissioners Henderson and DeBone would like to hear from COID. Mr. Martin stated the information from the testimony heard on Monday night at the historic landmarks commission can be shared with the Board. Commissioner DeBone noted interest in the process of the completion through the historic landmarks commission and requests the discussion come back on October 11. CDD Staff will facilitate a site visit for Commissioners Henderson and DeBone.

3. Thornburgh Resort / Remand Proceedings

This presentation was audio recorded. Nick Lelack, Community Development Department and Adam Smith, Assistant Legal Counsel presented. On September 18, Thornburgh Resort issued a remand under state law and Deschutes County has 120 days to complete the process. This will be a matter that will be referred to a hearings officer. Staff recommends the Board establish parameters via an Order. Staff recommend a one-word change in the Order. The hearing is tentatively scheduled for Monday, October 30. After decision by the hearings officer there is a 12-day appeal period and then Board has an opportunity to hear or not hear.

HENDERSON: Move approval of Order 2017-036 as amended

DEBONE: Second

VOTE: HENDERSON: Yes

BANEY: Absent, excused

DEBONE: Vice chair votes yes. Motion Carried

4. Possible Marijuana Production Appeal

Cynthia Smidt, Community Development Department presented this item. The applicant is requesting administrative determinations and site plan review to establish a marijuana production and processing facility on a 55.8 acre parcel in the Exclusive Farm Use Zone on Highway 126 outside of Redmond.

Staff noted the concern with various issues with an incomplete application. With the 150-day clock and currently we are at day 120. The clock begins when the application is deemed "complete." The application process was delayed a bit as the applicant needed a traffic analysis. The applicant has been out of the county and has been unable to be reached by phone. If the Board calls up now instead of going with the hearings officer the first hearing could be either October 30 or November 1. Commissioners Henderson and DeBone are both supportive of hearing the appeal.

HENDERSON: Move approval of 2017-040

DEBONE: Second

VOTE: HENDERSON: Yes

BANEY: Absent, excused.

DEBONE: Vice-chair votes yes. Motion Carried

OTHER ITEMS

- **Marijuana Evaluation:** Matt Martin, Community Development Department, presented the revised draft for review. Focus groups for community outreach and interviews with stakeholders can be planned for the next few weeks. The target would be representatives that have a license with OLCC and invitations for general public would be going out to notice area around the licensed facilities. There are 56 property owners that will receive an invitation to participate. The 8 license holders will be contacted. These will be meetings that are open to the public and held in Barnes and Sawyer. Commissioner DeBone inquired on a press release that noted the focus group dates and times instead which would cover the public notice requirements. The format of discussion will need to be specified and shaped to bulleted items. Mr. Martin will do a direct mailing to the adjacent property owners close to a licensed operation.

Commissioner Henderson is interested in hearing the testimony. Discussion held on public meeting attendance and not as a participant. Commissioner DeBone commented on having invitations for the focus groups and is not opposed to having public meetings. The focus groups and interviews may be pushed back from middle of October but want to complete the process by December. Discussion held on having a joint meeting with the Planning Commission. A Work Session discussion will be held before the Planning Commissioner meeting. This item will be on the agenda of November 8th.

- Commissioner DeBone requested information on the budget committee applications
- Commissioner Henderson asked to revisit the request of support from the Sunriver La Pine Economic Development for their annual luncheon. This was a community event to celebrate economic development. Commissioner Henderson committed a sponsorship of \$300. The Board supported a discretionary grant with \$150 contribution from each Commissioner Henderson and DeBone.

HENDERSON: Move approval

DEBONE: Second

Vote: HENDERSON: Yes

BANEY: Absent, excused

DEBONE: Vice-Chair votes yes. Motion Carried

-
- **Forest Plan Revision:** Commissioner DeBone attended the Eastern Oregon Counties Association meeting yesterday. The main purpose of the meeting was to define county priorities for the Blue Mountain Forest Plan which guides the management of the Malheur, Wallowa-Whitman, and Umatilla National Forests. Ed Keith, County Forester was invited to the Work Session to explain the process and how it relates to Deschutes County. Part of the concerns counties had with the Blue Mountain plan as is being proposed revolve around the impact of cattle

grazing. Mr. Keith said there is little grazing in the Deschutes National Forest compared to extensive grazing of the past. There is still some grazing allotments on the eastern part of the forest. The plan for Deschutes National Forest was meant to cover ten to fifteen years and it is well past due for revision. Mr. Keith expects forest plan revision should start fairly soon for the Deschutes National Forest. Our current plan was approved in 1990.

Commissioner DeBone reported another meeting on the topic will be held on Monday, October 16th in Pendleton and further discussions maybe held during the annual AOC conference in Eugene in November.

Commissioner Henderson inquired if there will be a review on the fires this year. Mr. Keith commented there will be a team review that will be done to determine what needs to happen to stabilize soils before the fall rains.

- County Administrator Anderson reported the 2018 Board Retreat has been scheduled for January 30th at the Juvenile Department. Supporting documents for review will be submitted well in advance.
- County Administrator Anderson inquired if the Board wanted to sponsor a table at the Bend Chamber Economic Forecast Breakfast on November 1. The board expressed support of a table.
- County Administrator Anderson stated the regularly scheduled joint meeting with the City of Sisters is scheduled for October 25. A draft agenda from the City of Sisters has suggested updates on EDCO and initial meeting the Sisters country visioning. Commissioner Henderson would like to hear on the fire impacts on businesses and evacuations. Ed Keith, County Forester and Alison Green, Project Wildfire will be invited.

At the time of 3:29 p.m., the Board went into Executive Session under ORS 192.660 (2) (e) Real Property Negotiations. The Board came out of Executive Session at 4:12 p.m.

OTHER ITEMS Continued:


- County Administrator Anderson reviewed the draft agenda for the Joint Meeting with the City of La Pine. Items to include are discussions on exchange agreement for the County letting go of jurisdiction within the City in exchange for lands. A discussion on county owned land and road maintenance costs will need to occur. Commissioner DeBone suggested having an update from the Sheriff's Office about public safety. Another item to include would be an update from Economic Development. Also to include would be Health Services for an update on services in the community.

ADJOURN: *Being no further discussion, the meeting adjourned at 4:30 p.m.*

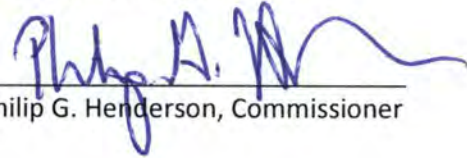
DATED this 8 Day of November 2017 for the Deschutes County Board of Commissioners.



Tammy Baney, Chair



Anthony DeBone, Vice Chair



Philip G. Henderson, Commissioner

ATTEST:


Recording Secretary

Pursuant to ORS 192.640, this agenda includes a list of the principal subjects anticipated to be addressed at the meeting. This notice does not limit the ability of the Board to address additional subjects. Meetings are subject to cancellation without notice. This meeting is open to the public and interested citizens are invited to attend.

Work Sessions allow the Board to discuss items in a less formal setting. Citizen comment is not allowed, although it may be permitted at the Board's discretion. If allowed, citizen comments regarding matters that are or have been the subject of a public hearing process will NOT be included in the official record of that hearing. Work Sessions are not normally video or audio recorded, but written minutes are taken for the record.

CALL TO ORDER

ACTION ITEMS

1. Veterans' Service Office - Increased State Funding - *Erik Kropp, Deputy County Administrator*
2. Discussion and Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places - *Matthew Martin, Senior Planner*
3. Thornburgh Resort / Remand Proceedings / Order - *Peter Gutowsky, Planning Manager*
4. Possible Marijuana Production Appeal - *Cynthia Smidt*

EXECUTIVE SESSION

5. Executive Session under ORS 192.660 (2) (e) Real Property Negotiations

At any time during the meeting, an executive session could be called to address issues relating to ORS 192.660(2)(e), real property negotiations; ORS 192.660(2)(h), litigation; ORS 192.660(2)(d), labor negotiations; ORS 192.660(2)(b), personnel issues; or other executive session categories.

Executive sessions are closed to the public; however, with few exceptions and under specific guidelines, are open to the media.

OTHER ITEMS

These can be any items not included on the agenda that the Commissioners wish to discuss as part of the meeting, pursuant to ORS 192.640.

ADJOURN



Deschutes County encourages persons with disabilities to participate in all programs and activities. To request this information in an alternate format please call (541) 617-4747.

FUTURE MEETINGS:

Additional meeting dates available at www.deschutes.org/meetingcalendar

(Please note: Meeting dates and times are subject to change. All meetings take place in the Board of Commissioners' meeting rooms at 1300 NW Wall St., Bend, unless otherwise indicated. If you have questions regarding a meeting, please call 388-6572.)

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 4, 2017

DATE: September 27, 2017

FROM: Erik Kropp, Administrative Services, 541-388-6584

TITLE OF AGENDA ITEM:

Veterans' Service Office - Increased State Funding

RECOMMENDATION & ACTION REQUESTED:

See attached staff report.

ATTENDANCE: Erik Kropp, Deputy County Administrator; Keith MacNamara, Veterans Service Officer

SUMMARY: See attached staff report.

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 4, 2017

DATE: September 29, 2017

FROM: Matthew Martin, Community Development, 541-330-4620

TITLE OF AGENDA ITEM:

Discussion and Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places

RECOMMENDATION & ACTION REQUESTED:

Discuss and Consider Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places

SUMMARY: A nomination to list a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places has been submitted to the Oregon State Historic Preservation Office (SHPO). The purpose of this item is to provide the Board a summary related to the nomination of determine if the Board wants to submit comments.

ATTENDANCE: Matthew Martin



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
 (541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

MEMORANDUM

DATE: September 28, 2017
TO: Deschutes County Board of Commissioner
FROM: Matthew Martin, AICP, Senior Planner
RE: Central Oregon Canal Nomination for the National Register of Historic Place

The purpose of this memorandum is to provide a summary related to the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places to assist the Board of Commissioners (Board) in determining how or if to submit comments. This summary includes:

- A. Nomination Overview
- B. Nomination Review Schedule
- C. Canal Ownership/Easement

A. NOMINATION OVERVIEW

A nomination to list a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places has been submitted to the Oregon State Historic Preservation Office (SHPO). As shown on the attached vicinity map (Attachment 1), the proposed district is located southeast of the City of Bend and generally bound by Ward Road to the west and Gosney Road to the east. The materials received from SHPO include:

- August 16, 2017, Cover Letter from SHPO (Attachment 2)
- Agenda for the October 20, 2017 Meeting of the State Advisory Committee on Historic Preservation (Attachment 3)
- July 21, 2017, Memo from SHPO to Patricia Kliewer, Preparer (Attachment 4)
- National Register Nomination Evaluation Sheet (Attachment 5)
- National Register of Historic Placer Registration Form (nomination)¹

Deschutes County as a Certified Local Government (CLG) is afforded the opportunity to review and comment on the nomination.

¹ Due to the size of the electronic version of the National Register of Historic Places Registration Form (16MB) it is not attached. The document can be found at the following link:

http://www.oregon.gov/oprd/HCD/NATREG/docs/sachp_docs/CentralOregonCanalHD_SACHP_Draft.pdf

B. NOMINATION REVIEW SCHEDULE

- 10/2/17** The Deschutes County Historic Landmarks Commission (HLC) is scheduled to review the nomination.
- 10/4/17** A work session with the Board is scheduled to discuss the nomination. Staff will provide a verbal report on any comments and/or recommendations made by the HLC. The Board can determine what, if any, comments or action to take.
- 10/20/17** The State Advisory Committee on Historic Preservation (SACHP) is scheduled to review the nomination. For comments to be considered by SACHP, responses from the County must be submitted in advance of this meeting.
- Next Steps** Following the meeting on October 20th, SACHP will make a recommendation to the State Historic Preservation Officer to approve or deny the document, or choose to table the issue for a future meeting. If recommended for approval or denial, the document will be held by SHPO for a 90-day comment period. The State Historic Preservation Officer will then make a recommendation to the National Park Service (NPS), the federal agency responsible for the administration of the National Register of Historic Places. The NPS will review the document for 45 calendar days.

C. CANAL OWNERSHIP/EASEMENT

The Central Oregon Canal is operated by the Central Oregon Irrigation District (COID) via an easement. The regulations applicable to the National Register of Historic Places state:

“The term owner or owners means those individuals, partnerships, corporations or public agencies holding fee simple title to property. Owner or owners does not include individuals, partnerships, corporations or public agencies holding easements or less than fee interests (including leaseholds) of any nature.” (36 CFR 60.3)

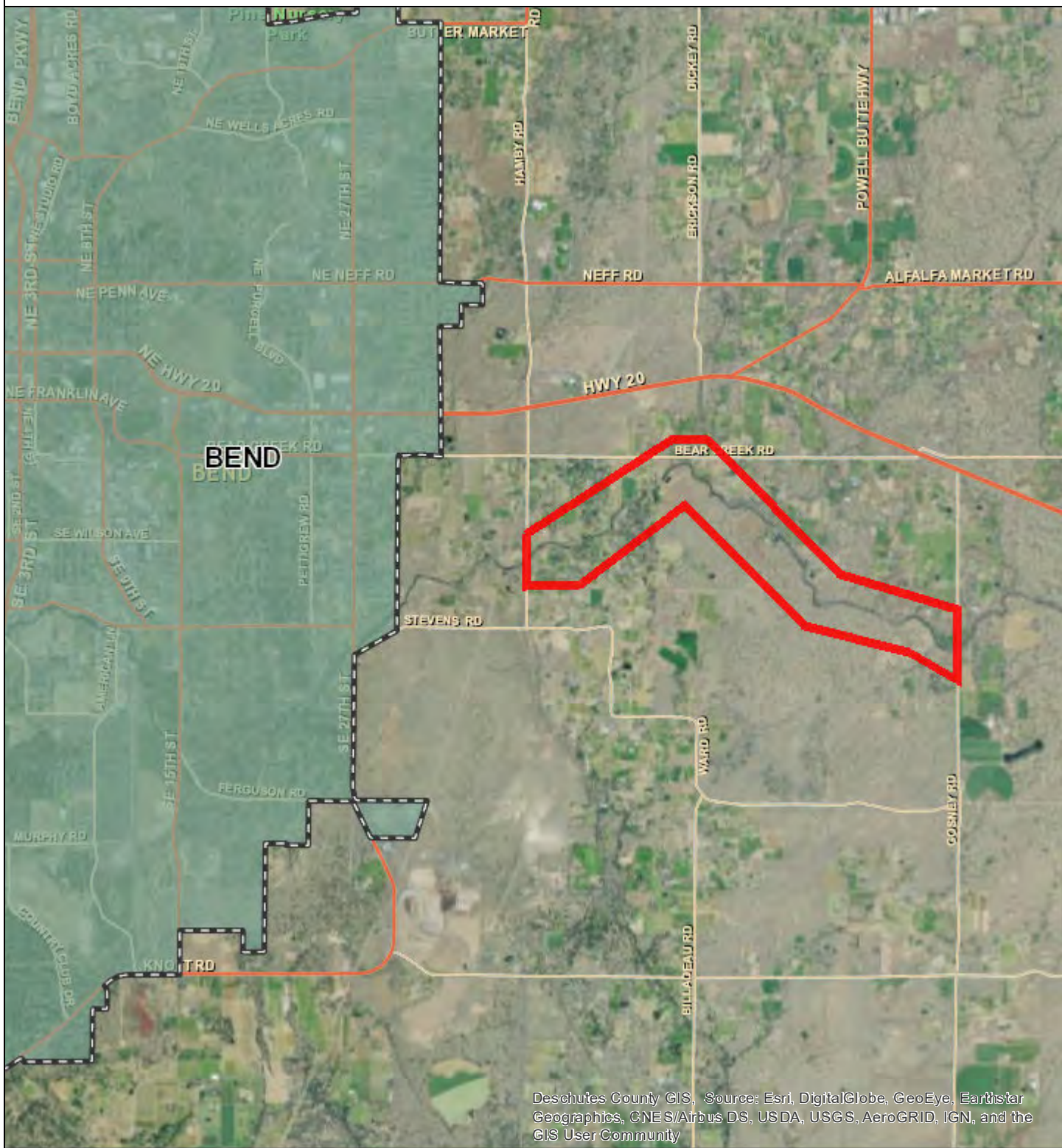
Based on this definition, the owners of the underlying real property are owners of the canal, not COID. Nevertheless, Craig Horrell, COID Director, submitted a memo on September 7, 2017 addressing the nomination (Attachment 6).

Attachments:

1. Proposed Historic District Vicinity Map
2. 8/16/17 Cover Letter from SHPO
3. Agenda for the 10/20/17 Meeting of the SACHP
4. 7/21/17 Memo from SHPO to Patricia Kliewer, Preparer
5. National Register Nomination Evaluation Sheet
6. 9/7/17 Memo from Craig Horrell, COID

Proposed Central Oregon Canal Historic District

Vicinity Map



Attachment: 10 4 17 BOCC Packet (1586 : Nomination of the Central Oregon Canal for National Register of Historic Places)



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



August 16, 2017

Mr. Matthew Martin
 Deschutes County Historic Landmarks Commission
 PO Box 6500
 117 NW Lafayette Ave
 Bend, OR 97708

Dear Mr. Martin:

The State Advisory Committee on Historic Preservation will review the following property for nomination to the National Register of Historic Places at its next meeting in Salem, Oregon, on October 20, 2017:

CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOSNEY ROAD SEGMENT)


BEND

Staff contact: Jason Allen, Survey Program Coordinator, (503)986-0579

Enclosed you will find a CLG evaluation form. Please return the form with your review board's comments to the State Historic Preservation Office as soon as possible before the State Advisory Committee meeting date.

You are invited to attend the forthcoming meeting of the State Advisory Committee on Historic Preservation. The date and location of the meeting are given on the agenda enclosed. If questions concerning the National Register nomination process arise, please contact the coordinator listed below the property information.

Sincerely,

for 
 Christine Curran
 Deputy State Historic Preservation Officer

Encl.

Attachment: 10 4 17 BOCC Packet (1586 : Nomination of the Central Oregon Canal for National Register of Historic Places)



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**State Advisory Committee on Historic Preservation
Meeting Agenda
North Mall Office Building, Room 124 A and B
725 Summer Street NE
Salem, OR 97301**



Friday, October 20, 2017

| | | |
|-----------------------------|--|-------|
| MEET | North Mall Office Building, Room 124 Leaving from North Mall Office Building | 8:30 |
| TOUR | Oregon Supreme Court Building 1163 State Street | 9:00 |
| TOUR | Salem Train Station Baggage Depot 500 13 th Street SE | 10:00 |
| TOUR | Roth/McGilchrist Building 102-110 Liberty Street SE | 11:00 |
| WORKING LUNCH (NMOB) | | 12:00 |

Presentation and Discussion:

Review: Application of the National Register Significance Criteria and Criteria Considerations
Ian Johnson and Matt Diederich

Discussion

Review of Committee rules; looking ahead to rules revisions, Fall 2017
Ian Johnson

Presentation

Oregon Heritage All-Star Communities
Kuri Gill

This location is accessible to persons with disabilities.
Special accommodations for the hearing impaired require advance notification to the State Historic Preservation Office



Oregon

Kate Brown, Governor

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725 Summer St NE Ste C

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**State Advisory Committee on Historic Preservation
Meeting Agenda
North Mall Office Building, Room 124 A and B
725 Summer Street NE
Salem, OR 97301**



BEGIN BUSINESS MEETING

2:30

1. Opening remarks and introductions
2. Discussion of issues of interest and concern to the public not on the agenda
3. Approval of agenda
4. Approval of minutes of previous meeting
5. Update from the Deputy SHPO and Associate Deputy SHPO
6. Review of properties proposed for listing in the National Register of Historic Places:

| | | |
|----------------|--|------|
| Julie Jason | Central Oregon Canal Historic District Bend vcty, Deschutes County Proponent: Private Party | 2:45 |
|----------------|--|------|

| | | |
|----------------|--|------|
| Steve Jason | Spring Valley School Zena vcty, Polk County Proponent: Spring Valley Community Center | 3:45 |
|----------------|--|------|

END BUSINESS MEETING

4:30

Attachment 4



State Historic Preservation Office
725 Summer St. N.E., Suite C
Salem, OR 97301

MEMORANDUM

DATE: July 21, 2017
TO: Patricia Kliewer, preparer
FROM: Jason Allen, National Register Program, State Historic Preservation Office
RE: Revisions for the Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)

Thank you for submitting the Central Oregon Canal Historic District (Ward Road – Gosney Road Segment) for listing in the National Register. Below is a list of required revisions to address and recommended items to consider before the nomination is forwarded to the State Advisory Committee on Historic Preservation (SACHP) for consideration. In addition to these revisions, please take time to thoroughly address any typos, spelling and punctuation errors, and ensure that capitalization and abbreviations are consistent throughout. Please feel free to contact me with any questions at (503) 986-0579 or jason.allen@oregon.gov.

General*Requested Revisions*

- Please maintain a division between physical descriptive elements in the nomination (Section 7) and historical contextual elements of the nomination (Section 8) for ease of reading and to eliminate repetition. For example, the discussion of the purpose of the Central Oregon Canal in Section 7 (pp.8-9) would be better discussed in Section 8. Likewise, the description of the area on pp.47 in Section 8 is more relevant in Section 7, "Setting." Where possible, refer to previous sections instead of repeating information.
- As written the nomination includes excellent research; however, some of the information is not required to make the case for listing the nominated segment. Consider trimming the information to include that which is directly relevant to characterizing and establishing the historical significance of the nominated segment specifically to sharpen the argument for listing.
- Wherever appropriate, consider referencing maps to assist the reader in locating the nominated segment within the larger irrigation system, and specific elements within the nominated segment.

Section 7, Description*Required Revisions*

- Please shorten the Section 7 summary to a single, brief paragraph that captures the key descriptive elements of the nominated segment. See our guide "Preparing National Register Nominations in Oregon" for guidance on this topic. Please generally note the presence of non-historic residence and non-permanent elements within the nominated area in the summary paragraph, with specific mention that these are non-contributing to the nominated district.

- It appears that the section heading, "Location, Geography and Geology of the Pilot Butte Canal" On page 4 should be "of the Central Oregon Canal." Please correct this error.
- Please clarify the following: Pp. 9, "District Boundary" section, 1st paragraph, sixth line – "...within the west half and the northeast quarter..." – is this meant to be northeast, or northwest?
- Elements within the district that are originally built outside the Period of Significance cannot be classified as contributing to the district. This seems to be the case with Bear Creek Ranch Bridge (1928), and possibly Burt Chute, which seems like it may have been built after the arrival of Mr. Burt on the property in 1921 (no specific date is given for this structure). Please review the contributing and non-contributing elements within the district and classify with respect to the Period of Significance established for the district. To address this, the Period of Significance can be adjusted to a later (but still defensible) closing date, or the elements postdating the close of the Period of Significance can be reclassified as non-contributing. Be sure to adjust maps, etc. to reflect any changes made.

Requested Revisions

- As much as possible, please place special focus on describing character-defining elements/features in the nominated area, such that when defining the significance of these in Section 8 the relationship is easy for the reader to understand.
- Consider integrating all of the location information, including the elevation, geology, nearby development, etc. into a single discussion under the heading "Setting."
- Please consider relocating the discussion of the field survey employed to support the nomination from Section 7 (pp.12) to Section 10 or an appendix.

Section 8, Significance

Required Revisions

- Please begin the Period of Significance in 1905, the date of construction. The period of significance cannot predate the construction of the nominated segment.
- The close of the Period of Significance is linked to the transfer of the system to COID, but it is not readily apparent from the justification why this is a suitable breaking. On pp. 47 of the nomination, it is noted that COID made adjustments to the canal to increase flow. Could this event be used to establish the close of the period of significance?
- It appears that the nomination lacks the required Statement of Significance Summary Paragraph section at the beginning of the narrative portion of Section 8. Please reinsert that part of the form, and provide a single, brief paragraph that establishes the significance of the nominated segment. See our guide "Preparing National Register Nominations in Oregon" for guidance on this topic.
- The opening paragraph of Statement of Significance indicates that the Central Oregon Canal, being the largest conveyor of water on the Central Oregon Project, is directly related to the founding of Bend and Redmond. Since Redmond is on the Pilot Butte Canal, and the nominated segment is well beyond Bend's city limits, it is not clear how the nominated segment, specifically, relates to the founding of these cities. The association with the settlement of downstream communities/areas like Powell Butte and Alfalfa, however, is unique to the Central Oregon Canal and relevant to the nominated segment, and should be emphasized.
- The nomination appears to assert that the nominated segment is both representative of the Central Oregon Canal, and unique within the Central Oregon Canal, which seems to

be internally at odds. Please clarify how the nominated segment relates to the rest of the Central Oregon Canal with reference to its physical presentation.

- As written, the nomination effectively establishes the eligibility of the Central Oregon Canal. However, because the nomination focuses on a segment of the Central Oregon Canal, a district within a district, please orient the comparative analysis to provide comparison with other segments of the Central Oregon Canal, rather than comparing the Central Oregon Canal with other canals in the upper Deschutes basin. Include explicitly what the reader is to take away from the comparisons, in terms of the uniqueness and significance of the nominated segment.

Requested Revisions

- The significance of the nominated segment is explicitly established in the very last heading in Section 8 (pp.111-113). It would greatly aid the reader to understand the significance of this specific segment if this discussion were moved forward in Section 8, addressed as early as possible.
- Consider scaling back on the volume of information regarding the Pilot Butte Canal, except that which is relevant to establish the relationship between the Central Oregon Canal and the Pilot Butte Canal. Briefly establish the historical relationship, then focus on the development of the Central Oregon Canal, and increasingly zero in on the development and significance of the nominated segment. This will help to keep the argument for significance focused and readily apparent to the reader.
- Consider scaling back the detail provided in the "Original Settlers" discussion (pp. 102-103) to include just the information that is directly relevant to establishing the significance of the nominated segment.

Section 10, Boundary Description and Justification

Required Revisions

- Please review the justification for the eastern and western boundaries established for the nominated segment, and consider how these can be strengthened. For example, while the nomination asserts that west of the boundary the setting is increasingly suburban, that change doesn't appear to happen until the vicinity of Rigel Way, and the intervening stretch appears to demonstrate several of the character-defining features described in the nomination. The eastern boundary justification should be explicitly addressed. If it is the presence of the Ward Road and Gosney Road bridges that defines the boundaries, please state this explicitly, and relate that to integrity. If there is a change in the character of the canal after Gosney Road, please be explicit as to what that character change is.

Please Note: All required revisions must be thoroughly addressed in order for the nomination to move forward to the next regular meeting of the State Advisory Committee on Historic Preservation (SACHP). The preparer may or may not choose to address suggested revisions; however, a copy of this document will be made available to the SACHP. Please submit revised nominations electronically, in a Word document, to jason.allen@oregon.gov, or mail it in on a CD. The SHPO may make additional changes before submitting the draft to the SACHP.

REVISIONS ARE DUE BY AUGUST 14, 2017

NATIONAL REGISTER NOMINATION EVALUATION SHEET Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOSNEY ROAD SEGMENT)**

ADDRESS:
BEND, DESCHUTES COUNTY

OK Concerns **INTEGRITY:** Major alterations or additions? New materials? Altered setting? Moved? etc.

OK Concerns **DESCRIPTION:** Is the property adequately described? Have contributing and non-contributing features been clearly identified?

OK Concerns **SIGNIFICANCE and CONTEXT:** Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance?

OK Concerns **FACTS AND SOURCES:** Are the appropriate and best sources used? Are key dates and facts accurate?

OK Concerns **SUPPORTING MATERIALS:** Adequate photos, maps, drawings, etc.?

The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register.

The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register.

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

Signature of Commission Chair (or Designee) Date

Name of Local Historic Preservation Commission

MEMO

To: Matt Martin, Deschutes County

From: Craig Horrell, COID

Date: September 7, 2017

RE: Historic Nomination of COID Canal

Dear Matt,

Thank you for your inquiry about COID's position regarding the historic nomination of the section of the Central Oregon Canal between Ward Road and Gosney Road. We have not been provided a copy of the nomination, so the following are only our preliminary concerns.

1. Conflict with MPD/other nominations

COID recently completed a multi-year study and preparation of a Multiple Property Document that provided a comprehensive analysis of the historic resources that make up the irrigation systems within our region. That process resulted in a formal MPD approved by the National Park Service, as well as nomination of important and representative sections of the Pilot Butte Canal and Central Oregon Canal at Redmond and Brasada Ranch. Our thorough, systematic process reflected an enormous investment of time and money in order to thoroughly study, document, and preserve important historic resources.

In contrast, the piecemeal "hostile nomination" of COID canal sections by those opposed to conservation projects lack the study, documentation, analysis, and holistic approach that COID has taken. If SHPO allows this piecemeal nomination process to proceed, it will undermine the efficacy and value of the MPD process and discourage entities like COID from investing in thorough study and analysis of historic resources. This is bad policy and bad precedent.

2. COID Ownership

COID owns the canal as well as significant parcels of the adjacent land. COID acquired its interest in the Central Oregon Canal through Carey Act irrigation rights-of-way more than 100 years ago. In addition, COID owns in fee title several parcels of land adjacent to the canal in this section. Despite our ownership, we have yet to receive a copy of the nomination and have not been consulted. Again, SHPO's allowance of hostile nominations without the consent or approval of property owners is seriously problematic and the County should discourage this precedent.

3. Lack of Historic Value

The canal section between Ward and Gosney Roads may be the single section of canal that presents COID with the largest maintenance and operational challenges. Over the years, we have had constant maintenance challenges in this section. We have faced problems with burrowing animals, erosion, and ground collapse that have required COID to add rip rap, perform excavation, add soil, and/or make other modifications on a nearly annual basis. There are at least eight different sections of this stretch that have been substantially rebuilt in the last 10-15 years. In addition, we have repeatedly lined this canal section with collected silt, such that very little of this section reflects its original character. Thus, unlike other sections of the canal, this particular section has less historic value and does not reflect its original construction. Instead, this is a section that has been constantly altered and worked on to try to address the thorny geology and other conditions that present ongoing maintenance challenges.

This raises another concern, which is that over the years COID has repeatedly had to make emergency repairs to this section of canal. To the degree that historic nomination might preclude or impair our ability to make rapid emergency repairs (i.e., by adding large amounts of rip rap or backfill materials in the event of a collapse or breach), this could present a significant danger of harm to property or safety.

4. Conflict with Conservation

In addition, we are implementing a system improvement plan to eventually pipe most of the Central Oregon Canal. This piping will allow COID to obtain substantial water conservation savings, allowing us to shore up flow in the Deschutes River, assist junior water rights holders, and meet the habitat demands of endangered and threatened species. SHPO seems to take a myopic view about historic nominations, without consideration of competing and important community values. The risk is that the historic nomination process will become a tool for obstruction of conservation, potentially tying up conservation projects in needless red tape. We are concerned that this particular nomination has very little to do with the historic value of this section of canal, and much more to do with the desire of a few property owners to preserve a water feature that they enjoy. As the County comments on this proposal, it should consider the larger context and the overall community benefit that comes from water conservation projects. While we do not have a present funding source to pipe the Ward to Gosney Roads section, COID does anticipate seeking such funding and, if successful, will look to pipe this section at some point in the future.

We trust that the County recognizes COID's appreciation and commitment to historic preservation. In large and small ways, COID celebrates its history and role in the development of Central Oregon. As an example, as part of the demolition at the old Cline Falls hydro facility, we have preserved sections of the original structure and are designing a kiosk to tell the story of that noteworthy site. Our MPD and nominations of sections of the Central Oregon and Pilot Butte canals were meaningful efforts to celebrate and preserve important components of our history. At the same time, just as the telegraph eventually gave way to telephone lines and fiber optic cable, our community must recognize that open, unlined, leaky canals are not the most efficient or appropriate way to convey water across lava rock in a high desert.

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 4, 2017

DATE: September 19, 2017

FROM: Peter Gutowsky, Community Development, 541-385-1709

TITLE OF AGENDA ITEM:
Thornburgh Resort / Remand Proceedings / Order

RECOMMENDATION & ACTION REQUESTED:
Staff respectfully requests the Board of County Commissioners issue Order 2017-036 to allow a Hearings Officer to receive additional testimony required to comply with a LUBA remand pertaining to Thornburgh Destination Resort and their Final Master Plan (FMP). Staff understands that the remand issue associated with Lower Whychus Creek is the last unresolved item pertaining to the FMP.

ATTENDANCE: Peter Gutowsky, AICP, Planning Manager

SUMMARY: Thornburgh Resort initiated a Land Use Board of Appeals (LUBA) remand.



For Recording Stamp Only

Deschutes County Board of Commissioners
1300 NW Wall St., Bend, OR 97703-1960
(541) 388-6570 - Fax (541) 385-3202 - www.deschutes.org

MINUTES OF WORK SESSION

DESCHUTES COUNTY BOARD OF COMMISSIONERS

Allen Conference Room

Wednesday, October 11, 2017

Present were Commissioners Anthony DeBone and Phil Henderson. Commissioner Baney's absence excused. Also present were Tom Anderson, County Administrator; Erik Kropp, Deputy County Administrator; David Doyle, County Counsel; and Laura Skundrick, Assistant Secretary. Attending for a portion of the meeting were James Lewis, Property Management Specialist; Deborah Cook, Property Management Administrative Assistant; Matt Martin, Senior Planner; Adam Smith, Assistant Legal Counsel; One representative of the media was in attendance, as well as one member of the public.

CALL TO ORDER.

Vice Chair DeBone opened the meeting at 1:32 p.m.

As requested at this morning's Board of County Commissioner Business Meeting,
Consideration of Signature of Resolution No. 2017-051, Correcting Identified Territory to be Considered for Inclusion into the Bend Enterprise Zone

Commissioner Henderson had requested clarification on specific changes made to the map. Kip Barret, EDCO Bend Director, explained that the revised map only reflects the areas within the UGB, whereas the last map included the entire parcel. He explained those were the only changes made, and that the only places where residential was overlaid is where there is spot zoning.

HENDERSON: Move approval.
DEBONE: Second.

VOTE: HENDERSON: Yes.
DEBONE: Vice Chair votes yes. Motion Carried
BANEY: Absent, excused

ACTION ITEMS

1. Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places

Mr. Martin provided an overview from last week's meeting regarding this item. The board had asked for additional time for consideration and to allow time for site visits. Commissioner Henderson noted the tour of the canal was beneficial, and it was interesting to see the specific stretch of canal in question. He would like to hear more from COID regarding their concerns, such as the maintenance issues they mentioned in their letter.

Mr. Martin summarized the materials he had provided, noting there is no requirement that a decision be made today. Commissioner Henderson suggested it would be great to have Commissioner Baney's input, and Commissioner DeBone agreed. He proposed that Mr. Martin begin to draft a letter for review and discussion at the next work session. He requested a tour of the canal either Thursday or Friday, and Mr. Lelack confirmed they could coordinate that.

2. Discussion of County Owned Lands in La Pine

James Lewis provided background information and current state of properties owned by the county in La Pine area. He overviewed the industrial site created through an IGA the county had with La Pine Industrial Group, Inc. (LIGI), now held by City of La Pine. The agreement states the land would be sold for businesses, generating large economic development in south county. Commissioner Henderson stated he is interested in the history of financials for this development. Mr. Lewis explained his understanding that everything has since been paid off. Since LIGI was the acting representative for the work at the time, money from sales offsetting the development costs went to LIGI, who did not have any specific funds for development. Mr. Kropp suggested they could check the program budget, and possibly the LIGI fund. Commissioner Henderson also requested any documentation that might explain the history, such as an ordinance? County Administrator Anderson confirmed there is. Commissioner Henderson requested the original conveyance, which Mr. Lewis stated he would research.

Mr. Lewis continued, overviewing property the county purchased from BLM, to assist in lessening the impacts to high groundwater between developments in Sunriver and La Pine. Some lots on this property are currently in discussions to sell, and as growth is happening, the county can make some decisions about marketing some of the land. County Administrator Anderson provided history about the sewer and water development in that area, and moneys loaned, owned, and contributed.

A separate portion of land, in the Drafter Road area, were acquired through tax foreclosures. These properties have been retained because as they develop or re-develop, there are multiple driveway accesses on the highway that ODOT would like to consolidate.

EXECUTIVE SESSION: At the time of 3:41pm, the Board went into Executive Session under ORS 192.660 (2)(e) Real Property. The Board came out of Executive Session at 4:06pm.

OTHER ITEMS

County Administrator Anderson discussed proposed agenda items for the La Pine joint meeting with Commissioners DeBone and Henderson, who requested that Mr. Lewis prepare a brief, five-point summary of county owned property in La Pine, then they can use the map and provide brief history at the meeting.

Commissioner DeBone noted the Medal of Honor house bill will be signed by Governor Kate Brown at the Deschutes Services Building Friday, October 20th. Deschutes County will also hand a donation check to Dick Tobiason for the Bend Heroes Foundation.

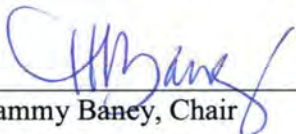
Commissioner Henderson asked the status of the marijuana review plan. Commissioner DeBone stated he had asked for an update on that for potentially Monday's meeting.

County Administrator Anderson informed Commissioners DeBone and Henderson that it appears both Bend and Redmond will pursue the pilot program to expand the UGB for affordable housing.

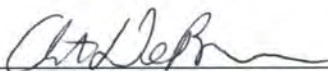
ADJOURN

Being no further discussion, the meeting adjourned at 4:06pm.

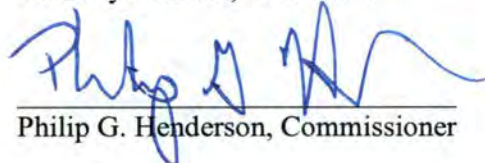
DATED this 29 Day of November 2017 for the Deschutes County Board of Commissioners.



Tammy Baney, Chair



Anthony DeBone, Vice Chair



Philip G. Henderson, Commissioner

ATTEST:



Recording Secretary

Pursuant to ORS 192.640, this agenda includes a list of the principal subjects anticipated to be addressed at the meeting. This notice does not limit the ability of the Board to address additional subjects. Meetings are subject to cancellation without notice. This meeting is open to the public and interested citizens are invited to attend.

Work Sessions allow the Board to discuss items in a less formal setting. Citizen comment is not allowed, although it may be permitted at the Board's discretion. If allowed, citizen comments regarding matters that are or have been the subject of a public hearing process will NOT be included in the official record of that hearing. Work Sessions are not normally video or audio recorded, but written minutes are taken for the record.

CALL TO ORDER

ACTION ITEMS

1. Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places - *Matthew Martin, Senior Planner*
2. Discussion of County Owned Lands in La Pine - James Lewis, Property Management Specialist

EXECUTIVE SESSION

3. Executive Session under ORS 192.660 (2) (e) Real Property

At any time during the meeting, an executive session could be called to address issues relating to ORS 192.660(2)(e), real property negotiations; ORS 192.660(2)(h), litigation; ORS 192.660(2)(d), labor negotiations; ORS 192.660(2)(b), personnel issues; or other executive session categories.

Executive sessions are closed to the public; however, with few exceptions and under specific guidelines, are open to the media.

OTHER ITEMS

These can be any items not included on the agenda that the Commissioners wish to discuss as part of the meeting, pursuant to ORS 192.640.

ADJOURN



Deschutes County encourages persons with disabilities to participate in all programs and activities. To request this information in an alternate format please call (541) 617-4747.

FUTURE MEETINGS:

Additional meeting dates available at www.deschutes.org/meetingcalendar

(Please note: Meeting dates and times are subject to change. All meetings take place in the Board of Commissioners' meeting rooms at 1300 NW Wall St., Bend, unless otherwise indicated. If you have questions regarding a meeting, please call 388-6572.)

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 11, 2017

DATE: October 6, 2017

FROM: Matthew Martin, Community Development, 541-330-4620

TITLE OF AGENDA ITEM:

Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places

ATTENDANCE: Matthew Martin, Senior Planner

SUMMARY: On October 4, 2017, the Board of County Commissioners (Board) discussed the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places. The Board decided to consider commenting on the nomination at a work session on October 11, 2017, to allow time to review the materials and conduct a site visit.



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
 (541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

MEMORANDUM

DATE: October 6, 2017
TO: Deschutes County Board of Commissioners
FROM: Matthew Martin, AICP, Senior Planner
RE: Central Oregon Canal Nomination for the National Register of Historic Places –
 Board of Commission Review

SUMMARY

On October 4, 2017, the Board of County Commissioners (Board) discussed the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places. The Board decided to consider commenting on the nomination at a work session on October 11, 2017, to allow time to review the materials and conduct a site visit.

BOARD NOTIFICATION ERROR

As noted at the October 4 work session, the State Historic Preservation Office (SHPO) issued a letter on the same day, acknowledging that the required notification to the chief elected office, Chair Baney, was not provided as required (Attachment). The Board has two choices moving forward with regard to this nomination:

1. Choose to review and consider commenting on the nomination as it otherwise would, waiving the Chair's 60-day notification requirement; or
2. Choose to invoke its right to the 60-day notification requirement, due to the administrative error on the part of SHPO, and cause the nomination to be removed from the State Advisory Committee on Historic Preservation's (SACHP) hearing agenda.

Staff had a subsequent conversation with Jason Allen, SHPO Historic Preservation Specialist. Mr. Allen asked to inform the Board that if they choose to invoke their right to the 60-day notification, the review by SACHP will be rescheduled to their next meeting in February 2018.

HISTORIC LANDMARKS COMMISSION REVIEW

On October 2, 2017, the Deschutes County Historic Landmarks Commission (HLC) received testimony on the nomination. The HLC chose to not complete review of the nomination at the meeting, instead, each commissioner will independently review it and submit comments to staff by October 9, 2017. Staff will then compile them for final review by Rachel Stemach, the Designee of the HLC Chair, prior to submitting to SHPO. At the October 11 Board work session, staff will summarize their comments to SACHP.

Attachment:

October 4, 2017 SHPO Letter

Attachment: 10 11 17 BOCC Packet (1589 : Central Oregon Canal Nomination)



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



October 4, 2017

Hon. Tammy Baney
Chair, Deschutes County Commission
1300 NW Wall Street
Bend, OR 97703

Dear Commissioner Baney:

The State Advisory Committee on Historic Preservation (SACHP) will review the following property for nominations to the National Register of Historic Places at its next meeting in Salem, Oregon, on Friday, October 20, 2017:

CENTRAL OREGON CANAL HISTORIC DISTRICT
BEND vcty., DESCHUTES COUNTY

A private party is sponsoring the nomination of a segment of the Central Oregon Canal that occurs, in part, on your property. The canal segment nominated for listing includes only the elements of the Central Oregon Canal National Register nomination. The nominated area extends 50 feet in both directions from the centerline of the canal. A complete electronic copy of the nomination may be found online at

http://www.oregon.gov/oprd/HCD/NATREG/docs/sachp_docs/CentralOregonCanalHD_SACHP_Draft.pdf

Under the rules governing the National Register nomination process, our office is required to notify the chief elected official of the jurisdiction within which the nominated property occurs no less than 60 days prior to the hearing of the SACHP at which the nomination will be heard by that body. Due to an error on our part, notification was sent to the Mayor of Bend, and not to you as the Chair of the Deschutes County Commission, an error we discovered this morning. As such, the Commission has two choices moving forward with regard to this nomination:

1. The Commission may choose to review and comment on the nomination as it otherwise would, waiving the Chair's 60-day notification requirement; or
2. The Commission may choose to invoke its right, due to the administrative error on the part of our office, to cause the nomination to be removed from the SACHP's hearing agenda.

Again, we apologize for our error. Please advise our office as soon as you have come to a decision on how you wish us to proceed. You are invited to attend the forthcoming meeting of the State Advisory Committee on Historic Preservation. The date and location of the meeting are given on the agenda enclosed. If questions concerning the National Register nomination process arise, please contact Jason Allen, Survey Program Coordinator, at (503) 986-0579.

Sincerely,

Christine Curran
Deputy State Historic Preservation Officer



For Recording Stamp Only

Deschutes County Board of Commissioners
1300 NW Wall St., Bend, OR 97703-1960
(541) 388-6570 - Fax (541) 385-3202 - www.deschutes.org

MINUTES OF WORK SESSION

DESCHUTES COUNTY BOARD OF COMMISSIONERS

Allen Conference Room

Monday, October 16, 2017

Present were Commissioners Tammy Baney, Anthony DeBone and Phil Henderson. Also present were Tom Anderson, County Administrator; Erik Kropp, Deputy County Administrator; David Doyle, County Counsel; and Sharon Ross, Board Executive Secretary. No representatives of the media were in attendance.

CALL TO ORDER: *Chair Baney opened the meeting at 3:38 p.m.*

ACTION ITEMS

- 1. Consideration of Signature of Document No. 2017-653 and 2017-654, OHA Public Health Modernization Implementation Grant Application.**

Muriel Brown, Crook County Public Health and Human Services Director and Dr. Baker Jefferson County Health Services along with Hillary Saraceno and Dr. George Conway of Deschutes County Health Services presented the item for consideration. Ms. Saraceno spoke on public health modernization noting citizens will receive the same services no matter where they live in the state. State has released a competitive request for proposals for grant applications for funding for communicable disease programs. The hope is for a tri-county region application with the region eligible for \$500,000. If awarded the grant will fund the development and implementation of regional strategies to reduce the burden of communicable

diseases in Crook, Deschutes, and Jefferson counties through the formation of a Central Oregon Outbreak Prevention, Surveillance, and Response Team. The group requested permission to apply along with St. Charles Health System and Central Oregon Health Council and the Jefferson and Crook Counties. This will increase capacity and 2.8 FTE for the regional team. The three positions would sit in Deschutes County but would serve all three counties. This program timeframe is January 1, 2018 through June 30, 2019. The team would consist of a 1.0 FTE communicable disease epidemiologist and 1.8 FTE infection prevention specialist.

HENDERSON: Move approval of Documents 2017-653 and 2017-654

DEBONE: Second

VOTE: HENDERSON: Yes

DEBONE: Yes

BANEY: Chair votes yes. Motion Carried

2. Consideration of Signing Project Wildfire Support Letter

County Administrator Anderson presented on behalf of Senior Advisor Joe Stutler. Mr. Stutler requested the Board to consider a letter addressed to International Association of Fire Chiefs to nominate Project Wildfire for the 2018 Wildfire Mitigation Awards Nomination. Commissioner DeBone suggested revising the letter to include the number of Community Wildfire Protection Plans. The letter will also be revised to include signatures of all Commissioners instead of Chair only.

HENDERSON: Move approval

DEBONE: Second

VOTE: HENDERSON: Yes

DEBONE: Yes

BANEY: Chair votes yes. Motion Carried

3. Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places.

Matt Martin, Community Development Department presented this item. This portion of the agenda was audio recorded. Mr. Martin noted the Board directed staff to bring this item for continued conversation on whether to provide comments

to the state historic commissioner for nomination of a section of the Central Oregon Canal for the National Register of Historic Places. Mr. Martin stated the State Historic Preservation Office (SHPO) recognizes there was a noticing error and has agreed to delay their deadline for review. Commissioners DeBone and Henderson toured the site on separate occasions. The Deschutes County Historic Landmarks Commission received public testimony regarding the nomination at the October 2, 2017 meeting. Comments were submitted to staff to compile and summarize. The evaluation sheet was included in the agenda packet for review. Discussion held on water in central Oregon and maintaining the existing facility.

Mr. Martin stated there are two preserved segments of the canal. The charge of the advisory committee is to review the criteria of the historic value. Based on comments, a letter from the Historic Landmarks Commission to SHPO captured comments pertaining to this segment and included the role in wildlife habitat and on-going maintenance to the facility. The Board is not going to request a delay for the consideration of nomination.

4. Discussion of Application for Outdoor Mass Gathering for 4 Peaks Music Festival

Cynthia Smidt, Community Development Department presented this item for discussion. This portion of the agenda was audio recorded. Ms. Smidt noted the public hearing next week and the application is staying the same but the applicant has modified the design layout to help mitigate impact to neighboring residents. Commissioner Henderson requested a copy of the map from the last event to show the changes. The application will again ask for a waiver on the ambulance and will be bringing in Adventure Medics. The Board asked to have a copy of the full packet submitted by the Miner family during citizen input at a prior business meeting.

OTHER ITEMS

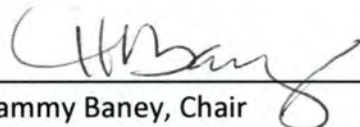
- Budget Committee: County Administrator Anderson reported there were seven applicants received for the budget committee vacancy. The Board will review the applications. This item will be brought back for further discussion regarding the steps for interviews.

EXECUTIVE SESSION:


At the time of 5:04 p.m., the Board went into Executive Session under ORS 192.660 (2) (h) Litigation and ORS 192.660 (2) (e) Real Property Negotiations. The Board came out of Executive Session at 5:46 p.m.

RECESS: *Being no further discussion, the meeting was continued to Wednesday, October 18, 2017 at 8:30 a.m.*

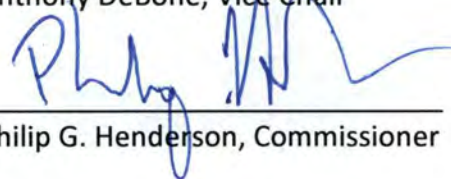
DATED this 6 Day of December 2017 for the Deschutes County Board of Commissioners.



Tammy Baney, Chair



Anthony DeBone, Vice Chair



Philip G. Henderson, Commissioner

ATTEST:


Recording Secretary

Pursuant to ORS 192.640, this agenda includes a list of the principal subjects anticipated to be addressed at the meeting. This notice does not limit the ability of the Board to address additional subjects. Meetings are subject to cancellation without notice. This meeting is open to the public and interested citizens are invited to attend.

Work Sessions allow the Board to discuss items in a less formal setting. Citizen comment is not allowed, although it may be permitted at the Board's discretion. If allowed, citizen comments regarding matters that are or have been the subject of a public hearing process will NOT be included in the official record of that hearing. Work Sessions are not normally video or audio recorded, but written minutes are taken for the record.

CALL TO ORDER

ACTION ITEMS

1. Consideration of Signing Project Wildfire Support Letter - *Joe Stutler, Presenter*
2. Consideration of Signature of Document No. 2017-653 and 2017-654, OHA Public Health Modernization Implementation Grant Application - *Hillary Saraceno, Health Services Deputy Director*
3. Continued - Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places - *Matthew Martin, Senior Planner*
4. Discussion of Application for Outdoor Mass Gathering for 4 Peaks Music Festival - *Cynthia Smidt, Associate Planner*

EXECUTIVE SESSION

5. Executive Session under ORS 192.660(2)(h) Litigation
6. Executive Session under ORS 192.660(2)(e) Real Property

At any time during the meeting, an executive session could be called to address issues relating to ORS 192.660(2)(e), real property negotiations; ORS 192.660(2)(h), litigation; ORS 192.660(2)(d), labor negotiations; ORS 192.660(2)(b), personnel issues; or other executive session categories.

Executive sessions are closed to the public; however, with few exceptions and under specific guidelines, are open to the media.

OTHER ITEMS

These can be any items not included on the agenda that the Commissioners wish to discuss as part of the meeting, pursuant to ORS 192.640.

ADJOURN



Deschutes County encourages persons with disabilities to participate in all programs and activities. To request this information in an alternate format please call (541) 617-4747.

FUTURE MEETINGS:

Additional meeting dates available at www.deschutes.org/meetingcalendar

(Please note: Meeting dates and times are subject to change. All meetings take place in the Board of Commissioners' meeting rooms at 1300 NW Wall St., Bend, unless otherwise indicated. If you have questions regarding a meeting, please call 388-6572.)

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 16, 2017

DATE: October 13, 2017

FROM: Joe Stutler, Administrative Services,

TITLE OF AGENDA ITEM:

Consideration of Signing Project Wildfire Support Letter

RECOMMENDATION & ACTION REQUESTED:

Staff recommends signing the Support Letter for Project Wildfire for the 2018 Wildfire Mitigation Award.

Also expecting letters from Central Oregon Fire Chiefs, Oregon Department of Forestry, and the U.S. Forest Service.

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 16, 2017

DATE: October 11, 2017

FROM: Hillary Saraceno, Health Services, 541-317-3178

TITLE OF AGENDA ITEM:

Consideration of Signature of Document No. 2017-653 and 2017-654, OHA Public Health Modernization Implementation Grant Application

RECOMMENDATION & ACTION REQUESTED:

Staff recommends signature of Document No. 2017-653 and 2017-654.

CONTRACTOR: Contractor/Supplier/Consultant Name: Oregon Health Authority, Public Health Division

AGREEMENT TIMEFRAME: Starting Date: January 1, 2018 Ending Date: June 30, 2019

INSURANCE:

Insurance Certificate Required: Yes or No

Insurance Review Required by Risk Management: Yes or No

BACKGROUND AND POLICY IMPLICATIONS:

If awarded the grant will fund the development and implementation of regional strategies to reduce the burden of communicable diseases in Crook, Deschutes, and Jefferson counties through the formation of a Central Oregon Outbreak Prevention, Surveillance, and Response Team. This regional team will consist of a 1.0 FTE communicable disease epidemiologist and 1.8 FTE infection prevention specialists who will improve upon current efforts and interventions to prevent, detect, and control the spread of communicable diseases in Central Oregon. The County will provide fiscal and programmatic oversight and evaluation, work plan development and performance management to monitor achievement of work plan activities, work force development and support and will subcontract with Crook and Jefferson Counties to accomplish the goals of the grant.

For the most part, the region's public health departments effectively respond to and investigate day-to-day communicable disease reports in a timely manner through current local communicable disease programs. While basic communicable disease investigation requirements are met, there continues to be limited capacity and inadequate resources to focus on communicable disease prevention and surveillance efforts or to complete a thorough outbreak prevention and response, especially within institutional settings with vulnerable populations. When outbreaks of disease occur, the communicable disease teams are greatly

taxed and only able to provide the minimal amount of response efforts. This is even more evident in Jefferson County where there is only a .2 FTE dedicated to communicable disease activities.

This grant requires a coordinated and regional approach to identify, respond and prevent the transmission of communicable disease with an emphasis on reducing communicable disease-related health disparities among vulnerable populations in the region. There is growing need to address the increasing number of outbreaks, and negative health outcomes associated with those outbreaks, in Long Term Care Facilities (LTCF) and to reduce the two-year old immunization exemption rates in the region.

The Deschutes County Health Services Department will work in partnership with Crook and Jefferson County Public Health agencies to improve the expertise and capacity for communicable disease prevention, surveillance, and coordinated response in Central Oregon. It will provide funding to: 1) reduce the incidence and spread of communicable disease in the region's LTCF; and 2) reduce two-year-old immunization exemption rates in child care facilities with high exemption rates.

FISCAL IMPLICATIONS: \$500,000

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 16, 2017

DATE: October 11, 2017

FROM: Matthew Martin, Community Development, 541-330-4620

TITLE OF AGENDA ITEM:

Continued - Consideration of Commenting on Nomination of the Central Oregon Canal for National Register of Historic Places

ATTENDANCE: Matthew Martin, Senior Planner

SUMMARY: On October 11, 2017, the Board of Commissioners (Board) discussed the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places. The Board continued the discussion to October 16, 2017, to conduct a site visit, consult Central Oregon Irrigation District, and allow Commissioner Baney to provide input.



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
 (541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

MEMORANDUM

DATE: October 11, 2017

TO: Deschutes County Board of Commissioners

FROM: Matthew Martin, AICP, Senior Planner

RE: Central Oregon Canal Nomination for the National Register of Historic Places –
Continued Board of Commissioners Review

On October 11, 2017, the Board of Commissioners (Board) discussed the nomination of a segment of the Central Oregon Canal for the National Register of Historic Places. The Board continued the discussion to October 16, 2017, to conduct a site visit, consult Central Oregon Irrigation District, and allow Commissioner Baney to provide input.

As directed, staff will draft a letter incorporating the points raised today by the Board. In addition, staff will provide the final recommendation of the Historic Landmarks Commission. Both documents will be presented at the work session on the 16th.

Attachment: BOCC Memo RE CO Canal Nomination 10 16 17 work session (1600 : Consideration of Commenting on Nomination of the Central



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
 (541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

October 12, 2017

Oregon State Historic Preservation Office
 ATTN: National Register Coordinator
 725 Summer Street NE, Suite C
 Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

To Whom It May Concern:

Thank you for the opportunity to comment on the nomination of a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places. The Deschutes County Historic Landmarks Commission (HLC) received public testimony regarding the nomination at a meeting on October 2, 2017. The HLC chose to not complete review of the nomination at the meeting. Instead, each commissioner independently reviewed the nomination, considered the testimony, and submitted comments to staff to compile and summarize.

First, it is important to emphasize that the HLC recognizes the historic importance and significant role irrigation canal systems have had in the region. These water delivery systems most certainly contributed to the overall development of Deschutes County since the early 20th century by increasing the viability of agricultural uses that enabled homestead settlement and resulted in rural and urban development present today. With that said, the HLC recognizes that review and consideration of a nomination for the National Register of Historic Places is based on the merits of the application and review criteria.

Enclosed is the completed National Register Nomination Evaluation Sheet. The Evaluation Sheet indicated "Concerns" if any one of the Commissioners specifically expressed concerns regarding a category. Regarding a recommendation, 1 commissioner supports listing the district on the National Register and 3 commissioners (including one ex-officio member) do not. Based on these opinions, the Evaluation Sheet indicates the commission does not recommend listing the nomination segment of the Central Oregon Canal as historic district on the National Register of Historic Places.

For additional context and detail, the following summarizes Commissioner comments on each evaluation category.

Attachment: Deschutes HLC Letter and Evaluation Sheet Central Oregon Canal Nomination (1600 : Consideration of Commenting on

INTEGRITY:

- Period of Significance – the property has been altered since its original design in early 1905. Some of the original design features can still be identified, but the irrigation district has altered the original design of the canal through years of maintenance. This raises a critical question of whether the alterations have significantly altered the original character or not. I do not have photos to indicate to support a decision on the impact of the major alterations nor access to any revised dates for the period of significance.
- From the research stated in the nomination, there appears to be significant revisions and improvements done to the canal (particularly beginning in the 1960s) in order for its continued function as a water utility. Few features, despite what the writer is considering 'historic' (headgates, flumes, piers, catwalks, etc.) don't particularly stand out in significance for construction practices or unique features that are already found elsewhere as better examples in the irrigation canal systems. The proposer claims that this segment is the most 'unmodified' portion of the Central Oregon Canal remaining in existence, but the constant upgrades and repairs of the canal indicate that few original (or historic) components still exist.
- Too many alterations and new materials have been added to this canal to meet integrity criteria.
- This portion of the canal, I believe, is historic with regard to construction, materials, design and location.

DESCRIPTIONS:

- In the original application, several elements (examples include Bear Creek Ranch Bridge and Burt Chute) are referenced that were built outside the period of significance for this nomination. Therefore, they cannot be classified as contributing to the district. Without access to the revised application and supporting documents to see if these concerns have been met, I cannot make a recommendation to approve.
- The property is adequately described. There seems to be superfluous information about other parts of the canal system not under consideration for nomination, making the Ward to Gosney segment difficult to interpret. It is also difficult to determine what the proposed 'boundary' (north and south) edges are, even with the accompanying map sources.
- In reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified.

SIGNIFICANCE AND CONTEXT:

- Criterion A - The canal does tell an important part of Central Oregon and Oregon's history. The application clearly presents evidence to support this criteria. The question is whether this is the only section that tells that important story or not.
- Criterion D – The remaining elements for the original canal may tell an important part of our history in Central Oregon. Again, not sure if this same information is available in another section of the canal.
- Although the miles of irrigation canals built throughout Central Oregon have, in small part, contributed to the overall development of the area, the nomination fails to make direct connection to events in the early history of the Deschutes Project with respect to this particular segment under consideration. With Criterion A "requiring events that have

made a *significant* contribution to the broad patterns of our history," this canal does not appear to match much to that criterion.

- One needs to merely reference the above books and memories [*The Oregon Desert, Desert Sage Memories, The River Flows as the Mountains Watch, The Pioneer Spirits of Bend, and It Is Too Cold To Snow*] written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923.

FACTS & SOURCES:

- The nomination presents the appropriate and best sources to support this nomination. As presented, the facts and sources seem accurate. The research is excellent.
- It is obvious that an exhaustive amount of research and a plethora of sources were used in creating this nomination. However, there doesn't seem to be strong connection to the area under consideration and those sources. Multiple references to the Carey Act, and a synopsis of local figures, and other various irrigation projects don't seem to be directly connected to this portion of the canal.
- The data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

SUPPORTING MATERIALS:

- The information needed to support this application is included with the nomination. We cannot review and address the revisions raised by SHPO since we do not review the revised application. Supporting material is presented through the application to help support the application.
- Despite a number of photos and maps, very few historic photos seem to be of this part of the canal being considered for nomination. Map sources don't accurately define the north and south boundaries of the proposed District either.

In closing, it is important to reiterate that the HLC recognizes the historic importance and role irrigation canal systems contributed to the overall development of area since the early 20th century. However, outstanding concerns and the lack of historic integrity and significance of this segment of canal prevent the majority of commissioners from supporting the nomination.

Sincerely,



Rachel Stemach,
Commissioner/Designee of Chair
Deschutes County Historic Landmarks Commission

Enclosure

NATIONAL REGISTER NOMINATION EVALUATION SHEET

Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOSNEY ROAD SEGMENT)**

ADDRESS:
BEND, DESCHUTES COUNTY

OK Concerns **INTEGRITY:** Major alterations or additions? New materials? Altered setting? Moved? etc.

OK Concerns **DESCRIPTION:** Is the property adequately described? Have contributing and non-contributing features been clearly identified?

OK Concerns **SIGNIFICANCE and CONTEXT:** Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance?

OK Concerns **FACTS AND SOURCES:** Are the appropriate and best sources used? Are key dates and facts accurate?

OK Concerns **SUPPORTING MATERIALS:** Adequate photos, maps, drawings, etc.?

The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register.

The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register.

Paul M. Stroman 10/12/17
Signature of Commission Chair (or Designee) Date

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

DESCHUTES COUNTY HISTORIC LANDMARKS
Name of Local Historic Preservation Commission COMMISSION

Attachment: Deschutes HLC Letter and Evaluation Sheet Central Oregon Canal Nomination (1600 : Consideration of Commenting on

October 12, 2017

Jason Allen
Oregon State Historic Preservation Office
725 Summer Street NE Suite C
Salem, OR 97301-1266

Re: Central Oregon Irrigation District's Comments on Proposed Central Oregon Canal Historic District, Ward-to-Gosney Road

Dear Mr. Allen:

Please accept these comments on behalf of Central Oregon Irrigation District (COID) in opposition to the proposed nomination of the Ward Road to Gosney Road section of Central Oregon Canal to the National Register of Historic Places. The nomination does not meet the criteria for listing. More significantly, the State Historic Preservation Office (SHPO) is in breach of its Memorandum of Agreement with COID and the Bureau of Reclamation by considering this nomination outside of the detailed process agreed upon by the parties for the study, documentation, and preservation of these historic resources.

BACKGROUND & CONTEXT FOR THIS NOMINATION

COID serves nearly 3,600 patrons in Central Oregon. It operates two main canals, the Central Oregon Canal and the Pilot Butte Canal, that provide irrigation water to family farms, municipalities and school districts, and business and residential properties located in and outside of Bend, Redmond and surrounding Central Oregon communities.

COID is pursuing a long-term plan to responsibly manager its water resources for the benefit of its patrons and the Deschutes Basin. Piping open irrigation canals is an important aspect of COID's overall plans, and provides numerous benefits for the region, the state, and the United States. The piping of COID's water delivery system is a priority for COID in order to protect and improve water quality, conserve water, and increase instream flows in the Deschutes River for species listed under the Endangered Species Act.

There are locations along the COID canals with potential for hydroelectric development, which can create sustainable renewable energy for the community and a sustainable income for COID to implement further conservation measures. The Ward-to-Gosney section of the Central Oregon Canal, however, does not provide hydroelectric potential. Rather, this is a stretch of canal that presents significant water loss due to seepage and evaporation, as well as ongoing maintenance challenges. COID will eventually pipe this section of canal to conserve water and meet its obligations to increase instream flows and improve habitat for listed species.

The Ward-to-Gosney nomination is brought by a group of homeowners who enjoy a water feature on their property when the canals are operating. This is a classic Not-In-My-Backyard ploy to create procedural and substantive hurdles to make it more difficult for COID to modernize its system and conserve water for the benefit of the Deschutes Basin. SHPO should recognize that this is an abuse of the nomination process, and that it is entirely inconsistent with the collaborative process envisioned by the Memorandum of Agreement between SHPO, COID and the U.S. Bureau of Reclamation.

SHPO IS IN BREACH OF THE SHPO-COID-BUREAU MEMORANDUM OF AGREEMENT

In February 2014, the Oregon State Historic Preservation Office joined a Memorandum of Agreement (MOA) with the U.S. Bureau of Reclamation and COID. *See* Exhibit A, MOA No. R14MA13733. That MOA provided a model for the comprehensive study, analysis, and preservation of historic resources and for cooperation among different public agencies. The MOA arose out of the mutual recognition of the parties that COID would be undertaking to convert significant portions of its open canal system to a subterranean, piped system. Among other things, the MOA provided for development of a Multiple Property Document (MPD), followed by a Programmatic Agreement. Notably, the parties agreed that “All parties shall use the Multiple Property Document ... to identify contributing segments of the canal system....”

The parties to the MOA also agreed that following completion of the MPD COID would consult with Reclamation and SHPO and select “appropriate, contributing segments to be listed in the National Register of Historic Places through the MPD.”

Through this MOA, COID hired experts and conducted a detailed study of the historic resources of its irrigation systems, explaining how those fit with the history of the region and cataloguing the type and nature of the supporting elements within the historic district. COID’s MPD is an ambitious and comprehensive historic study. Out of the MPD

process, and consistent with its obligations under the MOA, COID then nominated two canal segments, at the Redmond Homestead and Brasada Ranch, for placement on the National Register of Historic Places.

SHPO has now violated both the letter and spirit of the methodical, holistic approach embodied in the MOA by considering a piecemeal nomination of the Ward-to-Gosney section of the Central Oregon Canal outside of a Programmatic Agreement and outside of the process SHPO agreed to in the MOA. The entire point of the MOA was to engage in a comprehensive study of these resources, to select important and representative sections for preservation, and to acknowledge that much of the remainder of the system would ultimately be piped to promote water conservation projects. SHPO's failure to live up to its end of the bargain in the MOA is extremely concerning, and may require legal action. At minimum, SHPO should consider whether its conduct on this nomination will discourage parties in the future from entering into agreements with the agency or from engaging in expensive programmatic studies for Multiple Property Documents.

THE NOMINATION DOES NOT MEET THE INTEGRITY CRITERION FOR LISTING

The nomination is factually incorrect when it asserts that this section is uniquely representative of the original Central Oregon Canal. To the contrary, this section has required substantial maintenance and reconstruction that has affected its historic integrity.

As detailed in the attached report marked as Exhibit B, and the attachments thereto, the geology and topography in this area has created difficult maintenance challenges for COID. As a consequence, several sections of the canal in the nominated section have been subject to excavation and fill activities, installation of rip rap, spreading of silt materials, and other ongoing modifications. These activities go beyond mere routine maintenance and have required substantial physical alteration and reconstruction of stretches of the canal. Attached to Exhibit B are engineering reports and other documents that identify some of this substantial reconstruction effort from the recent past. The nomination ignores these events, and makes almost no attempt to discuss the likely reconstruction events that occurred in this section of canal over the last century. The canal is an operating utility conveyance, and as such has been in a state of constant modification and improvement over the last century. The nomination is factually wrong to claim this section is unaltered or representative of the original canal. The challenging geology and geography of this particular section means that it has required more maintenance, construction, and reconstruction by COID than any other section along the Central Oregon Canal.

When considering this history of construction activities and how it impairs the historic integrity of this section of canal, SHPO should also consider the practical and safety problems with a nomination. As documented in the exhibits to these comments, COID has repeatedly had to perform emergency construction activities to address canal collapse, burrowing animals, and erosion. Under local law, some of these construction activities would require prior approval from the Deschutes Historic Landmark Commission if the section is to be nominated. Yet the Deschutes County Historic Landmark Commission meets only quarterly. If a canal is in imminent danger of collapse and could pour hundreds or millions of gallons of water onto a private property or residence in this area, is COID supposed to submit an application to the Landmark Commission and wait a few months for permission to act?

In evaluating the Integrity of the proposed nomination, SHPO should consider such factors including the Location, Design, Setting, Materials, Workmanship, Feeling, and Association. These factors also weigh against the proposed nomination.

- **Location.** The nomination makes the inconsistent claim that the Ward-to-Gosney section of the Central Oregon Canal is both unique and representative of the entire canal. Which is it? In truth, there is nothing terribly significant about the location. Unlike the Redmond Homestead nomination for the Pilot Butte Canal, where the nominated linear feature was linked directly to the founding of the City of Redmond and its early homesteading, there is no such link between the Ward-to-Gosney section and adjacent land parcels, most of which were developed only in recent decades. Indeed, much of the discussion about adjacent use of land is outside the period of significance, seeing as this area was developed and inhabited decades after the canal was constructed.
- **Design.** The Brasada Ranch nomination is an example of a nomination where Design was a significant contributing factor to the nomination's integrity. In that nomination for a segment of the original Central Oregon Canal, there are significant engineering accomplishments that reflect important design innovation and ingenuity. In contrast, the Ward-to-Gosney section is primarily a large ditch. The purpose of the National Registry of Historic Places is not to celebrate our ability to dig a ditch, but rather to cherish those important and significant structures from our past. The Design factor weighs against the nomination.

- **Setting.** The nomination does not establish a reason why the Setting of this proposed canal section is significant. There is nothing distinguishing the nominated section from sections immediately east or west along the linear feature. In addition, the Setting is entirely along private land parcels, such that it does not provide easy public access. Rather, the Setting is important to the proponents primarily because the canal runs through their backyard.
- **Materials & Workmanship.** The nominated canal section is essentially a large ditch. Neither the Materials nor the Workmanship reflect noteworthy or important accomplishment. Unlike, for example, the Brasada Ranch nomination that included important engineering accomplishments in the structures built in the area to convey water across a dry creek canyon, this section of canal does not. In addition, the substantial re-construction activities, along with frequent re-distribution of silt bars along the canal, means that much of the canal has been altered and does not reflect its original materials or workmanship. These factors weigh against finding sufficient Integrity to support the nomination.
- **Feeling.** “Feeling” is an admittedly subjective criterion for evaluating Integrity, and different people may have different feelings about whether the Central Oregon Canal “feels” historic. But the reality is that this section of canal is an operating utility conveyance that has required reconstruction and heavy maintenance, such that regardless of subjective feeling the section is objectively not an historic structure.
- **Association.** A final factor in evaluating Integrity is whether the nominated structure has a clear Association to historic events. The nomination provides a lot of words cut and pasted from prior nominations that discuss the general historic events in Central Oregon, but there is very little that ties the specific Ward-to-Gosney Road section to these events. The nomination does not meet the burden of proving that its Association to historic events warrants inclusion on the National Register.

COID IS THE OWNER OF CENTRAL OREGON CANAL AND OBJECTS TO ITS INCLUSION ON THE NATIONAL REGISTER

National Park Service lacks authority to include private property on the National Register if the owner of the property objects by notarized statement before the property is listed. 36 C.F.R. § 60.6(r). Under National Park Service regulations, “[t]he term owner or

owners means those individuals, partnerships, corporations or public agencies holding fee simple title to property. Owner or owners does not include individuals, partnerships, corporations or public agencies holding easements or less than fee interest (including leaseholds) of any nature.” *Id.* § 60.3(k). As explained below, COID falls within this definition of “owner” and objects to the inclusion of Central Oregon Canal on the National Register.

COID (as successor to the Pilot Butte Development Company and the Deschutes Irrigation and Power Company) acquired a right of way for Central Oregon Canal under the Act of March 3, 1891 (the “Right of Way Act”). As required by the Right of Way Act, the Deschutes Irrigation and Power Company filed with the local land office an as-built map of the canal. Our understanding is that the Department of the Interior approved the map on March 3, 1903.

The Right of Way Act granted a “right of way ... to the extent of the ground occupied by the water of any reservoir and of any canals and laterals and fifty feet on each side of the marginal limits thereof.” 43 U.S.C. § 946. The U.S. Supreme Court described the scope and nature of the property interest granted under the Right of Way Act in *Kern River Co. v. United States*, 257 U.S. 147 (1921). In *Kern River*, the Court explained: “The right of way intended by the [Right of Way] Act was neither a mere easement nor a fee simple absolute, but a limited fee on an implied condition of reverter in the event the grantee ceased to use or retain the land for the purpose indicated in the act.” *Id.* at 152.

Lower courts have further explained the concept of a “limited fee.” The Arizona Court of Appeals, in a case regarding the Right of Way Act, described the characteristics of a limited fee as follows:

It is a right to use the surface of the land for a specific purpose. Such land has definite boundaries which must be recorded with the Federal Government. The limited fee cannot be conveyed to be used for any purpose other than that specified in the grant and cannot be taken by adverse possession for any other purpose. If the limited fee is abandoned or forfeited it can only be by virtue of Federal statute or regulation and the fee reverts back to the United States. The limited fee owner has a superior right to the surface of the land against anyone else. The limited fee is used for railroads, pipelines, power plants, irrigation ditches and reservoirs, canals, etc.

Wiltbank v. Lyman Water Co., 477 P.2d 771, 774 (Ariz. Ct. App. 1970). Based on this description, a limited fee involves only two ownership interests: the grantee’s current interest and the United States’ reversionary interest.

The Wyoming Supreme Court distinguished between the grantee’s current interest in the ground occupied by water – the reservoir, canal, or lateral – and the 50-foot right of way that extends from the margins of such reservoir, canal, or lateral. *See Johnson Irrigation Co. v. Ivory*, 24 P.2d 1053, 1057-58 (Wyo. 1933). Regarding the ground occupied by water, the grantee has “the right to the exclusive and continuous use and possession of the land so occupied and, therefore, has a fee and not a mere easement.” *Id.* Although the grantee’s ownership interest is subject to a condition that the property be used for the purpose of irrigation and purposes subsidiary to irrigation, the grantee “may, while the estate continues, have *the same rights and privileges as an owner in fee simple.*” *Id.* at 1058 (emphasis added). Regarding the additional 50-foot right of way, the grantee’s right “is for uses which may be only intermittent and occasional, and is not a proprietary interest in the land itself. It is in the nature of an easement appurtenant to the ‘ground occupied’ by the [water].” *Id.* at 1057.

Here, COID holds a limited fee in the Central Oregon Canal and a 50-foot right of way that extends from the margins of the canal. With respect to the canal, this means COID has the same rights and privileges as an owner in fee simple. In addition, COID owns as a private property owner several tax lots, both underneath sections of the nominated canal and adjacent thereto.

Because the National Park Service defines “owner” to include entities holding fee simple title to property, COID has the right to object to the inclusion of Central Oregon Canal on the National Register. This interpretation is consistent with 54 U.S.C. § 302105, which required the Secretary of the Interior to “promulgate regulations requiring that before any property may be included on the National Register ... , the owner of the property ... shall be given the opportunity (including a reasonable period of time) to concur in, or object to, the nomination of the property for inclusion or designation.” 54 U.S.C. § 302105(a). Failure to recognize COID’s ownership of the canal would be contrary to Congress’ intent that the owner be given the opportunity to object to the nomination.

The nomination form fails to distinguish between COID’s ownership of Central Oregon Canal and the ownership of the real property underlying the canal. The nomination form includes some description of the boundaries of the properties adjacent to, and in some cases underlying, Central Oregon Canal, but it fails to identify COID as the owner of the canal itself. COID is the owner of the “primary structure” identified in the nomination

form and objects to its inclusion on the National Register. On this basis alone, the nomination should be rejected.

In addition, COID owns a number of private parcels of land along the nominated canal. These parcels are held in fee simple and are managed as private property. COID therefore also objects as a private property owner. COID's Notarized Owner Objection Statements, pursuant to 36 C.F.R. parts 60.1-60.15, are attached hereto and incorporated herein as Exhibit C.

Very truly yours,

HOLLAND & KNIGHT LLP



Matt Singer

MS/jmh

Enclosures – Exhibits A-C

#53909862_v1

MEMORANDUM OF AGREEMENT
No. R14MA13733
AMONG
THE U.S. BUREAU OF RECLAMATION,
THE OREGON STATE HISTORIC PRESERVATION OFFICE
AND
CENTRAL OREGON IRRIGATION DISTRICT

For
Piping of a Segment of the I-Lateral

ALFALFA VICINITY, DESCHUTES COUNTY, OREGON

This Memorandum of Agreement (MOA) is entered into by Bureau of Reclamation, Columbia-Cascades Area Office (Reclamation), the Oregon State Historic Preservation Office (SHPO) and the Central Oregon Irrigation District (District) to define their respective roles in mitigation efforts related to the piping of the I-Lateral of the Central Oregon Irrigation District System (System). This MOA outlines separate, but related mitigation for the current undertaking (subterranean piping of a Segment of I-Lateral) and the proposed future piping of the remainder of the canals, laterals, sub-lateral and ditches within the District. This MOA replaces MOA No. R12MA13723 thereby canceling it in its entirety.

1. Background

The District is located in Deschutes County. The District provides irrigation water within the Central Oregon Tri-county area with 43,000 acres delivered to water users in the vicinity of Bend, Alfalfa, Powell Butte, Redmond, and Terrebonne, within the upper Deschutes River basin.

A. I-Lateral Piping

Under the current undertaking, the District intends to protect and improve water quality and improve water delivery by converting approximately 4,800 feet of open ditch laterals within the I-Lateral of the System to pipe, in T17S R14E Sections 25, 26 and 36.

The District has been awarded a grant through Reclamation's WaterSMART Program to perform the work. Because Reclamation-administered Federal funds will be involved in this project, the Section 106 process of the National Historic Preservation Act was applied to identify affected historic properties.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the District has documented the extent of the Lateral within the current undertaking's Area of Potential Effects for historic and archaeological resources to standards acceptable to Reclamation and SHPO.

Reclamation, in consultation with SHPO, determined that replacement of the open I-Lateral with the pipe will have an adverse effect upon the historic integrity of the Lateral. Reclamation notified the Advisory Council on Historic Preservation (Council) of the adverse effect on the I-Lateral pursuant to the Code of Federal Regulations (CFR) 36 CFR Section 800.6(a)(1), and in a letter dated September 17, 2012, the Council indicated that their participation is not needed in the consultation for resolution of adverse effects from this undertaking.

Specific mitigation strategies designed to address the adverse effect of this undertaking are identified below, in section 3.A.

B. Future Piping of Canals, Laterals, sub-Laterals, and Ditches

Through discussions between Reclamation, SHPO, and the District related to future project planning and the stated intentions of the District, a proposal to programmatically mitigate for future adverse effects related to the future piping of canals, laterals, sub-laterals, and ditches throughout the District has been developed. This MOA is intended to provide mitigation for such future piping efforts.

Specific mitigation strategies designed to address the adverse effects of these future undertakings are identified below, in section 3.B.

C. Interim Management

Until the Programmatic Agreement is signed and in place, all consultation regarding non-Federal undertakings will be reviewed by SHPO under standard State review practices, as defined in Oregon State Regulations (ORS) 358.653.

This MOA is entered into under the authority of the National Historic Preservation Act of 1966 as amended, as specified in the regulations in 36 CFR 800, and specifically in Section 6(c) – Resolution of Adverse Effects without the Council.

2. Purpose and Applicability

This MOA will serve to define the necessary actions for documentation of the System in its current state, define in more detail the historical significance, contextual setting, character-defining characteristics and the contributing properties within the System, and set the parameters by which future actions to pipe the System can be accomplished. This MOA will reduce the need to consult with the SHPO on a case-by-case basis when qualifying future activities (defined as subterranean piping of canals, laterals, sub-laterals, and ditches) take place on the System, and provides for a schedule that allows the SHPO to be updated on implemented actions.

This MOA does not apply to projects affecting any feature or element that is or may be individually eligible for listing in the National Register of Historic Places. Federal undertakings that affect these elements of the District will continue to be reviewed under standard Section 106 review processes (36 CFR 800). Non-Federal projects will continue to be reviewed under ORS 358.653.

3. Implementing Actions

A. Piping of I-Lateral

The SHPO, Reclamation, and the District agree that the current undertaking, consisting of the subterranean piping of approximately 4,800 feet of the I-Lateral, currently an open-ditch structure, represents an adverse effect to the National Register-eligible District water conveyance system. In order to mitigate that adverse effect, the following shall be implemented:

1. Reclamation will:

- (a) Consult with the proper interested parties, such as the Council, SHPO, and the Confederated Tribes of the Warm Springs Reservation.
- (b) Ensure that mitigation efforts defined in this MOA as part of the current undertaking (identified below, Section 3.A.2) are completed to the standards set forth below.

2. The District will:

- (a) Perform or cause to be performed the Historic Documentation of the System:

- Following all applicable guidance provided by the National Park Service and SHPO, the District will conduct a historic properties inventory of the entirety of the District facilities and infrastructure related to water conveyance (i.e., not to include district offices and equipment/vehicle maintenance or storage facilities). This inventory will document all water-conveyance system buildings and structures, provide locational information (in GIS format, using lines to represent canals, etc., and points or polygons, as appropriate, to represent features) for all water conveyance-related buildings and structures, as well as associated features. The inventory will meet the requirements set forth for Reconnaissance Level Surveys, as defined in the document, “Guidelines for Historic Resource Surveys in Oregon.” Prior to initiation of the survey, a written, detailed survey design will be submitted to SHPO for review and concurrence.
- This inventory will be completed and submitted to Reclamation and SHPO for draft review within three (3) years of the date of the final signature on the document. Comments and revision requests from Reclamation and/or SHPO will be addressed, and a final version of the inventory will be submitted within one (1) year of the receipt of such comments.

B. Future Piping of Canals, Laterals, sub-Laterals, and Ditches Elsewhere Within the District

SHPO, Reclamation, and the District understand that it is the intention of the District to convert significant portions of the system of open canals, laterals, sub-laterals and ditches within the District to a subterranean, piped system. In order to mitigate for future adverse effects that would arise from these efforts, Reclamation, SHPO and the District have agreed to mitigate programmatically through the following measures in order to reduce time, effort, and resources required to conduct standard Section 106 and/or ORS 358.653 consultation:

1. Develop a Programmatic Agreement (PA)

- (a) Reclamation, SHPO, and the District shall enter into a PA to allow for the more efficient fulfillment of the entity’s obligations under Section 106 of the National Historic Preservation Act, as amended, and Oregon Revised Statute 358.653, as applicable.
- (b) All parties shall use the Multiple Property Document (see Section 3.B.2., below) to identify contributing segments of the canal system to be managed under the PA and any subsequent documents created as part of the process. The PA will include, at minimum:
 - A list of routine maintenance and minor construction activities and actions that do not adversely affect the historic resource and that are exempt from regular review by SHPO;
 - A provision to address emergency situations where catastrophic breach of the canal or other unforeseen event or eminent threat endangers human life or property. Such a provision shall allow the District to act on the immediate situation without consultation and address compliance with applicable cultural resource laws in consultation with appropriate federal agencies and stakeholders within 30 days of the incident.
 - An inadvertent discovery clause, which will outline procedures to be followed when unknown, unanticipated cultural resources are discovered due to District activities;
 - A description of annual reporting requirements and timetable for reporting activities undertaken by the District where the provisions of the PA were applied;

- A defined effective period of ten (10) years with provisions for the document to be reviewed at five years from last date of signature, amended as necessary, and the effective period continued, based on consultation. If appropriate, the effective period can be extended for an additional ten (10) years (with an additional five-year review), subject to the agreement of Reclamation, SHPO, and the District.
- (c) The PA may also include a probability model for subsurface archaeological sites, cultural resource treatment plans, and preservation plans, as agreed to by the signing Parties.
- (d) Reclamation, SHPO, and the District, as well as any other interested, consulting parties, will be signatories to the PA.
- (e) Until the PA is signed and in place, all consultation regarding future federal undertakings (those not covered under Stipulation A) affecting the District water conveyance system will be reviewed by Reclamation and SHPO under standard Section 106 review practices, as defined in 36 CFR 800.

2. Develop Multiple Property Document (MPD)

- (a) Following all applicable guidance provided by the National Park Service and SHPO for the preparation of MPDs, the District will edit the MPD, *Historic Agricultural Resources in Central Oregon*, which is currently in draft form, as prepared by Claeysens and Tomlinson (2006) under a previous Reclamation water conservation grant. The MPD will be prepared sufficiently such that subsequent Irrigation Districts are able to add their district-specific contexts and registration requirements. The MPD elements will be based on the results of the Reconnaissance Level Survey inventory created as a result of Stipulation A.2. (above). The MPD elements to be developed include:
1. General framework for the functioning of the MPD, once registered, including Sections A through D (complete), Sections E-I such that deal specifically with the District, but that includes general introductions, contexts, and registration requirements that will be applicable across all irrigation districts included in the final MPD;
 2. Establishment of the various historic contexts pertaining to the history and significance of the District. The historic context(s) will be based on historical research, and supported by historical documents and images;
 3. Development of associated property types and general and type-specific registration requirements through which identified elements of the system can be evaluated for eligibility (including consideration of significance and integrity) for inclusion in the NRHP through the framework of the MPD; and
 4. A GIS-based map of the entire system identifying the location, extent, and features of the District, and any other necessary appendices, shall be included. The map should identify elements and sections of the System as either contributing or non-contributing to the District as a comprehensive historic resource.
- (b) The draft MPD (including all GIS information) will be submitted to Reclamation and SHPO for review and comment within three (3) years of the date of the final signature of this MOA. Draft MPD and nomination materials will be submitted to Reclamation and SHPO for review by SHPO and the Oregon State Advisory Committee on Historic

Preservation (SACHP). The District will address any SHPO and SACHP comments prior to forwarding the document to the National Park Service for final consideration.

3. Preservation and Interpretation

- (a) Following completion of the draft MPD elements described above (Stipulation B.2.a-b), the District, in consultation with Reclamation and the SHPO, shall select appropriate, contributing segments to be listed in the National Register of Historic Places through the MPD. These segments will be selected based on the following criteria:
1. The segments will be high-integrity, substantial, contributing segments (minimally, one substantial segment each in the Pilot Butte Canal and the Central Oregon Canal) to the overall eligible District;
 2. The segment should include a variety of features, such that it well-represents the function and appearance of the water conveyance system, as it appeared as an intact system;
 3. The segment should be of sufficient length that on-site interpretation (see Stipulation B.3 (b), below) can be achieved in an attractive, well-organized fashion, without crowding or overwhelming the resource itself.
- (b) Once selected, the identified segment will be cleaned, repaired, and returned to working condition in a way that meets the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the immediate vicinity prepared such that it creates a welcoming, attractive environment for the public visitation and interpretation of the resource.
- (c) The interpretation of the resource will be achieved through the use of static or active displays that relate the history, function, and significance of the Central Oregon Irrigation District water conveyance system. Such displays will be presented in a format that is weather- and vandal-resistant, attractive, and engaging. Draft content and layout of the interpretive display(s) will be submitted to Reclamation and SHPO for review and comment, and if any revisions are requested, revised versions will be submitted for a second review prior to fabrication. Upon acceptance of the draft content by Reclamation and SHPO, the District will cause the interpretive display to be constructed.
- (d) Once constructed, the interpretive site and displays must be maintained by the District in an attractive and functioning condition.

4. Completion of this MOA

The terms of this MOA will be considered to be completed when the above implementing actions (A-B) have been completed to the satisfaction of Reclamation and SHPO. Upon completion of the implementing actions, all adverse effects resulting from subterranean piping of *all canals, laterals, sub-laterals, and ditches will be considered to be fully mitigated*, and may proceed without Section 106 or ORS 358.653 (as appropriate) consultation with Reclamation or SHPO.

5. Period of Performance

This MOA shall become effective on the date of the last signature hereto and extend three years after the date of the last signature. The MOA will also be considered terminated once all stipulations are complete, or five years after the date of the last signature on this MOA. Any party may terminate this MOA by providing 30

days written notice to the other party(ies). Any party may formally request modification of the MOA by providing a written request to the other party(ies).

If this MOA is terminated prior to completion of the above stipulations, then all projects undertaken from the date of the final signature not covered by the PA (should it be in effect) on this MOA must be reviewed under standard review practices under Section 106 of the National Historic Preservation Act, or under ORS 358.653, as appropriate.

6. Modifications

Reclamation, SHPO or the District may formally request modification of this MOA. Modifications shall be made by mutual consent of Reclamation, SHPO and the District by the issuance of a written modification to this MOA, signed and dated by all parties prior to any changes being performed.

7. Principal Contacts

The principal contacts for this MOA are:

For Reclamation:

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Archeologist
1375 SE Wilson Ave. #100
Bend, OR 97701
Phone (541) 389-6541
Fax (541)-389-6394
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For the District:

Laura Wollam
Grant Specialist
Central Oregon Irrigation District
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Redmond, OR 97756
Phone (541) 504-7577
Fax (541) 548-0243
Email: lauraw@coid.org

For SHPO:

Jason Allen
Historic Preservation Specialist
State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301-1266
Phone (503) 986-0579
Fax (503) 986-0793
Email: Jason.Allen@state.or.us

8. General Provisions

a. Reclamation’s responsibility for ensuring completion of consultation with SHPO for future undertakings identified in Section 3.B. is limited only to those that qualify as Federal undertakings. Projects identified in Section 3.B. that do not qualify as Federal undertakings are subject to review by the SHPO under ORS 358.653, and the responsibility for consultation and completion will rest with the District.

b. Completion of the mitigation stipulations will be considered to satisfy the requirements for mitigation of adverse effects for a previous undertaking (Pilot Butte Canal Juniper Ridge Piping Project Phase 2 [SHPO Case# 10-1873]) that has not yet been mitigated as of the date of the final signature on this MOA.

c. This MOA is neither a fiscal nor a funds-obligating document for Reclamation. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties of this MOA will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This MOA does not provide such authority.

d. Nothing herein shall be construed to obligate Reclamation to expend or involve the United States of America in any contract or other obligation for the future payment of money in excess of the appropriations authorized by law and administratively allocated for the purposes and projects contemplated hereunder.

e. No member of or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of the MOA or to any benefit that may arise out of it.

f. Any information furnished to Reclamation, under this MOA, is subject to the Freedom of Information Act (5 U.S.C. 552).

g. All parties to this MOA agree to comply with all Federal statutes relating to nondiscrimination, including but not limited to: Title VII of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, religion, sex, or national origin; Title IX of the Education amendments of 1972, as amended, which prohibits discrimination on the basis of sex; the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990, as amended, which prohibit discrimination on the basis of disability; the Age Discrimination in Employment Act of 1967, as amended, which prohibits discrimination based on age against those who are at least 40 years of age; and the Equal Pay Act of 1963.

9. Signatures


Reclamation, SHPO and the District will abide by the terms and provisions expressed or referenced herein.

BUREAU OF RECLAMATION

by: Gerry Kelso
Gerry Kelso, Manager
Columbia-Cascades Area Office

DATE: 2/12/14

OREGON STATE HISTORIC PRESERVATION OFFICE

BY: 

Roger Roper
Deputy State Historic Preservation Officer

DATE: 2-25-14

CENTRAL OREGON IRRIGATION DISTRICT

BY: 

Steven Johnson
Secretary-Manager

DATE: 14 Feb. 2014

~ End of Document ~

COC SIGNIFICANT MAINTENANCE/EVENTS, WARD RD. to GOSNEY RD.

The 3.4 mile stretch of the Central Oregon Canal (COC) between Ward and Gosney Roads is a high fill section of open canal that was constructed some 115 years ago. This section has generally required more maintenance and reconstruction activities than any other section of the COC, due to the geography and topography. This report catalogues recent major reconstruction and emergency maintenance activities in the past 25 years. While COID does not have institutional recollection or records for maintenance and reconstruction activities between the original construction and the 1990s, we believe that the below report is representative of efforts that would have been necessary throughout the history of this canal due to the difficulty posed by the lava rock in this area.

The native silt type soil available on site was used to construct the canal along a sloped hill side along most of this stretch. The canal sits at an average of 20 feet above the adjacent lands on the low side of the system. At Ward Road the canal water flow is approximately 400 cubic feet per second (cfs). At Gosney Road the canal flow is reduced to approximately 335 cfs due to diversions feeding into other laterals and deliveries within that 3.4 mile stretch. This segment of canal is monitored daily by the ditch rider during Irrigation Season (April through October), and during COID's off season one-week long livestock water runs (normally scheduled for November, January, February, March, weather and other factors permitting).

Included for use with the bullet point notes below is an aerial map pinpointing numbered locations (1 through 9) along this stretch of canal where significant reconstruction, maintenance work, events, and/or additional routine maintenance work has occurred. Photographs of locations 1; 2; 3; 4 (included in Siemens geologist report); 5; 7; 8; and 9 are also included.

- Location 1:** Burrowing animal (marmot) damage resulted in a minor breach several years ago in the high fill embankment on the canal road side. Per the ditch rider, an area of land approximately 150 feet by 150 feet was submerged under about 1 foot of water until the repair could be made. If not attended to immediately, a major breach of the canal could have potentially occurred, and potentially spilling approximately 200 cubic feet per second (90,000 gallons per minute) of water onto the adjacent land on the lower side of the high fill embankment. The repair consisted of using a track excavator to excavate down approximately 4 feet in the center of the embankment canal road for a length of about 20 feet to find the burrow hole. Approximately 10 cubic yards of clay was mixed with the existing excavated soil to produce a suitable backfill material. This material was compacted into the hole to seal off the burrow hole water flow. (Note: see location 1 site photograph)¹
- Location 2:** Embankment erosion had gradually occurred overtime in a bend in the canal on the south (off-road) side of the channel causing adjacent landowners on the south side some concern in 2007/2008. COID contracted with Geologist Andy Siemens (Siemens & Associates) to evaluate the land owner concerns. Per his recommendation, rip-rap (rock armoring) was placed along the south side embankment to help prevent further erosion. Approximately 200 lineal

¹ This emergency repair required alteration to the exterior of the structure, and so would have posed a significant challenge to COID and safety risk to adjacent properties if listed as a Goal 5 historic resource such that reconstruction had first required obtaining a permit from the Deschutes Historic Landmark Commission that meets only quarterly.

feet of the embankment was armored. Note: see enclosed location 2 Siemens & Associates report dated April 11, 2008, and location 2 site photograph) The addition of rip-rap in this section substantially altered the appearance of the canal.

- **Location 3:** During the 2007 off season COID performed some rock breaking work at this location to reduce the height of a basalt rock outcropping in the canal channel. This allowed for more free flow of the water in the channel, and reduced the risk of ice damming on the rock outcropping and the ditch rider walk bridge crossing the canal during the off season livestock water runs occurring during frigid conditions. The size of the rock outcropping removed was approximately 15 feet long, by 20 feet wide, by 2 feet high. Some minimal rock breaking occurred immediately downstream of the walk bridge as well removing some rock points allowing for less obstruction and improved flow. The busted rock was used to add more armoring to the canal embankment adjacent to the rock outcropping removal work. (Note: see location 3 site photograph). Again, this effort required substantial modification to the exterior of the canal structure.
- **Location 4:** During the January 2010 off season livestock water run (approximately 200 cubic feet per second), the canal floor and a portion of the canal embankment on both sides of the channel collapsed and exposed large underground fissures and cavern type geology extending well into the embankments. A segment of the canal road was also swallowed by the collapse. Geologist Andy Siemens (Siemens & Associates) was contracted to evaluate the collapse and to design an appropriate repair. JAL Construction was contracted to perform the repair. See enclosed Siemens & Associates Reports with photographs dated January 29, January 21, and April 5, 2010, and related invoices. (Additional note: Interestingly, a landowner's pond located approximately one-half mile due north of the COC collapse had twice collapsed and been repaired during the 2009 irrigation season. That collapse revealed similar underground characteristics as the canal collapse event).
- **Location 5:** "Burt's Chute" is a 100 foot long narrow concrete channel constructed within the canal channel some decades ago, likely built to span the canal over a high loss area, or sink hole, due to fissures in the basalt. The long wide ponding/stilling pool below Burt's Chute required embankment rip-rapping (armoring) previously to lessen embankment erosion caused by the force of the swirling water after it exits the chute. Both sides of the channel were rock armored for approximately 200 feet in length. This location will require additional armoring reinforcement repairs in the near future. Some rock armoring has fallen away from the embankment and will need to be reset. Additional rock may need to be imported to improve the existing armoring. (Note: see photographs of site)
- **Location 6:** According to the ditch rider, a serious breach had occurred at this location during the 1993 irrigation season as a result of burrowing animal damage. He recalls being told that the breach was approximately 15 feet wide by 3 feet deep, by 30 feet in length, spilling approximately 50 cubic feet per second of water (about 22,500 gallons per minute). Water was flowing across the bare property below the high fill embankment between the canal and Bear Creek Road and the county road bar ditch was filled with water for several hundred feet in each direction with some water reaching the height of the asphalt road surface and crossing over the road. Per the dimensions provided by the ditch rider, it would have taken a minimum of 70 cubic yards of clay-soil mix to backfill the breach and make the repair. (Note: No photograph)
- **Location 7:** On July 8, 2017, a burrowing animal (gopher) caused a leak at the base of the high fill slope into a resident's back yard. This was reported by the landowner to COID's after-hours/weekend call service. Due to its hidden location (back yard, behind a fence and at the base of a tree), COID's daily monitoring would not have observed the leak. COID responded promptly and performed the repair. The repair was made by excavating down 3 feet deep for 20 feet in length in the center of the embankment canal road until encountering the burrow hole water

flow. 5 cubic yards of clay was mixed with the excavated soil to make the repair. (Note: See photograph Location 7)..

- Location 8:** “Sterns Waste” was constructed several decades ago as an emergency canal spill should a catastrophic event occur downstream of location 8 that required the canal flow be rapidly reduced and/or eliminated. At this location, there are three 4 foot diameter “Waterman” wheel type headgates for managing an emergency canal spill. The last time the gates were used was in January of 2013 during an off season livestock water run. The temperatures dropped dramatically during the night within a few hours resulting in ice dams forming in the main canal and laterals in the Powell Butte area. The COC head works gates in Bend were closed immediately and both the Sterns Waste gates, and the Dry Canyon spill gates (located downstream adjacent to Brasada Ranch), were opened to rapidly reduce the water flow, helping to prevent further overtopping of the COC embankment and flooding of the Powell Butte Highway. Simultaneously, the COID crew worked through the night with heavy equipment breaking ice dams in an attempt to keep water flowing and in the canal. The Crook County Road Department assisted with traffic control and sanding during the hours that freezing water was on present on the Powell Butte Highway. Sterns Waste is essential to COID’s emergency response needs. (Note: see location 8 photographs)
- Location 9:** Historically this location, about 500 feet upstream of Gosney Road, is well known for canal embankment seepage. In July 2015, the land owner owning property under the high fill embankment reported to COID that they perceived the amount of seepage had increased compared to previous years. COID promptly responded and found no signs of burrowing animal activity. COID more closely monitored this location and contracted with the Wallace Group to perform a geotechnical evaluation. See the enclosed Wallace Group report dated July 21, 2015. COID’s further monitoring observed that the seepage lessened throughout the remainder of the 2015 irrigation season and the standing water dried up significantly. COID monitoring this 2017 irrigation season observed some increased seepage but not to the degree first observed in 2015. Note: see location 9 site photograph)
- Other:** Throughout this entire 3.4 mile stretch of main canal (Ward Road to Gosney Road) silt bar accumulations must be routinely removed every 3 – 5 years using heavy equipment (dozers, track excavators, dump trucks). As the work occurs, several hundreds of cubic yards of silt spoils are placed along segments of the embankment where extra widening is a benefit to further reinforce the high fills, or stock piled to be exported and used as bedding/backfill material on COID construction/improvement projects at other locations.






COC SIGNIFICANT MAINTENANCE/EVENTS, WARD ROAD TO GOSNEY ROAD



NOTE: MAINTENANCE AREAS ARE NOT TO SCALE

Legend

-  SIGNIFICANT MAINTENANCE/EVENTS
-  CENTRAL OREGON CANAL
-  STREETS

Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)



Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central

LOCATION 2

SIEMENS & ASSOCIATES

Central Oregon Irrigation District
1055 SW lake Court
Redmond, Oregon 97756
Attention: Larry Roofener

April 11, 2008
Project No. 1081018

Project: Central Oregon Canal
Bend, Oregon

Subject: Geotechnical Observations

Dear Larry,

We met you the afternoon of April 3, 2008 to review a select portion of the canal for the purpose of offering our opinion concerning bank stability. The area that we reviewed is along the right bank a short distance downstream from Ward Road adjacent the property owned by Rudy & Margaret Molzan and James Ristoff (tax lots TRS 18-12-01, TL 2300 and TRS 18-12-01 TL 2400, respectively).

At the time of our visit the canal was essentially dry and the areas of interest were readily available for review. The normal high-water mark was easily discerned from mineral precipitate on both large and small rock embedded within the canal bank. In this area the canal appears to offer a moderate gradient such that flow velocity is likely above average. The canal flows east through most of the Molzan property and then bends to the northeast. Canal depth appears to be on the order of 6 to 8 feet. The area hosts thin soils underlain by basalt – basalt is exposed throughout the canal bottom and appears fresh and clean with very little sand or silt deposition supporting our conclusion of moderate velocity flow. The canal is mostly in cut although low soil berms are built up on both sides.

We observed several areas along the Molzan property where it is our opinion that light erosion has promoted the upper foot or so of the canal bank to slump down about that same distance. These are fairly minor disturbances likely promoted by the undermining of soils near the high-water line held together by vegetation that slowly degraded and finally became too weak to support the weight in a saturated condition. These types of slumps often occur shortly following a rapid drawdown of the canal as the seepage forces toward the canal promote movement of weakened embankment. We did not observe indication of a larger instability such as a deep seated bank failure or reason to suspect that such a situation is imminent. Further, it is our view that the condition is one that has been developing for a long time and we do not assign a great urgency to the repair as it is our view that

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19134 River Woods Drive, 97702

Bend, Oregon
fax: 503-296-2271

even if uncorrected future years are likely to see a similar slow degradation of the bank rather than a rapid or catastrophic failure. However, it is also our opinion that stabilization efforts should be performed and the sooner, the better.

During our visit, we pointed out the areas where we think stabilization would be beneficial in the form of a simple armoring from just below the high-water up to the top of the embankment. Such protection can easily be established by excavating a solid bench into the existing riprap to form the foundation for additional riprap placement. Care should be observed when placing the new riprap to assure that it is firmly seated on the slope and well supported at its base. The riprap sizes can range from the largest rocks available to cobble sized rock with the smaller constituents best used to chink the void space between the larger rocks. Suitable riprap materials were stockpiled on site and can be gathered from the canal bottom and other areas where loose rock occurs.

At some time we suggest improving the bank armor at the northeast bend. While currently offering reasonably stable banks the soils along the bend can be expected to slowly degrade if not maintained by suitable riprap or other means of slowing erosion.

In areas such as these, it is our opinion that COID would benefit from establishing control points on each canal side that can be used to monitor the canal cross-section with time. This will help determine the effectiveness your stabilization efforts and serve as a record of success or a basis to justify additional effort. Methodology of such monitoring was discussed in the field.

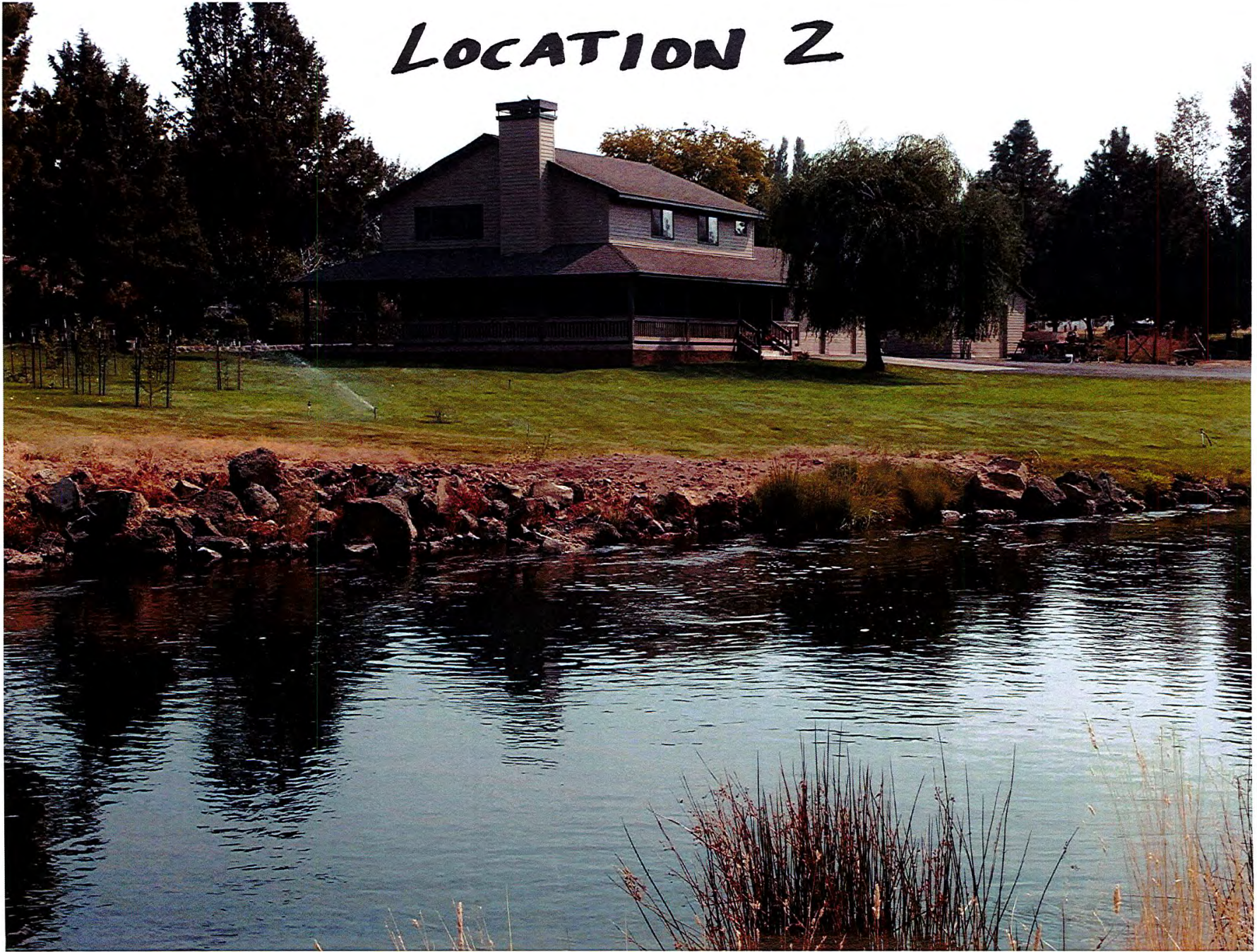
This report presents our professional opinion based upon a quick site visit, discussion and visual observation of surface conditions. The conclusions generated are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar work – we make no other warranty express or implied.

We appreciate the opportunity to provide this review and would be delighted to expand any of the topics as necessary. If you have any questions, just ask.

Respectfully submitted,
Siemens & Associates

J. Andrew Siemens, P.E., G.E.
Renews 6/30/2008
Addressee: 3 hard copy

LOCATION 2



Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central

LOCATION 3



Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central

LOCATION 4

SIEMENS & ASSOCIATES

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

January 21, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance

Gentlemen,

This letter presents our findings, conclusions and discussion of repair options to return service through a short section of canal that recently collapsed during a winter stock run. The affected area is located about $\frac{3}{4}$ miles east of Ward Road and $\frac{1}{4}$ mile south of Bear Creek Road.

We have explored the canal collapse through non-destructive means including basic field observation, geophysical methods using DC electrical imaging combined with limited research into readily available geologic information bearing on the area. The geology of the zone is dominated by a thin layer of silty sand soil placed by wind and water that conceals layers of basalt related to the Newberry volcanic center to the distant south. The basalt offers highly variable characteristics in terms of degree of fracturing, jointing and inflation and is disrupted by numerous faults that typically follow a northwest-southeast alignment. In addition, the area is known to host many air-filled lava tube caves some identified where the roof structure has collapsed due to natural causes, others remain concealed below thin layers of basalt.



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COID Canal Collapse: January 2010
Bend, Oregon

Project Number 110010
Siemens & Associates



The canal likely crosses numerous lava tube caves and faults as well as other anomalous zones such as boundaries between flow lobes and inflation features – most being harmless. Although we are not 100 % certain for reasons discussed later, we have not discovered any compelling reason to think that an air-filled lava tube collapsed. Rather, our findings suggest a less dramatic geologic anomaly probably associated with a heavily fractured, porous and inflated lava system that inflated differentially during its emplacement and the depressed surface sequentially filled with soil prior to the original canal construction. This depression includes an indurated (hardened) surface layer resembling volcanic tuff that provided reasonably good resistance to erosion over the years.

Cracks and other disconformities in this hardened surface layer along with clefts adjacent the more resistant basalt allowed seepage and subterranean erosion of the less competent underlying soil that was gradually flushed into large cracks and fissures of the supporting basalt below. The process has been ongoing for many years and although the collapse may have been precipitated by recent construction activity that included rock chipping in the area, the bridged erosion voids would have eventually failed anyway.

In our view, a variety of options are available to restore service with the primary objective being the sealing of subterranean voids such that future seepage energy is reduced to a degree that will not erode soil from either the canal bottom or embankments. This can be done effectively by building a graded filter from the bottom of the



Siemens & Associates

page 2

Bend, Oregon

Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)

cleaned out collapsed zone that is integrated with the intact margins of the existing canal. Physical exploration to determine the extents of the repair should be done as loose debris is removed. We anticipate that much of the spoil will be suitable for reuse in the reconstruction.



The completed surface through the collapsed zone could be finished with a lean concrete (the Cadillac repair) or we think that a less expensive soil floor and embankment armored with rip rap would also be acceptable providing that the flow is not so turbulent as to promote new erosion. Based on our findings, we estimate that a length of canal on the order of 100 feet will require reconstruction.

A rough Site Plan is attached to this letter along with the interpretations from two electrical imaging lines that extend along the top of each embankment. Although we ran a third electrical imaging line down the center of the canal, the effort was unsuccessful in developing a robust description due to poor electrical contact in the rock and failure to inject high current levels. Therefore, the results from that survey are not presented. We have conducted many similar surveys with electrodes set directly in rock and this is the first time that the method failed. This promotes our concern that some unusual (and undiscovered) geologic condition prevails to influence the effectiveness of the method through the bottom of the canal. As a result, we recommend conducting the clean out with caution to potential unidentified geologic hazard.



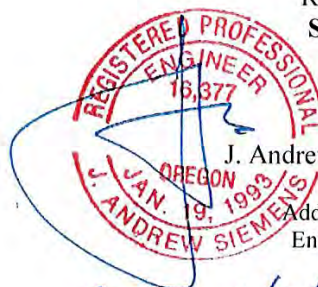
COID Canal Collapse: January 2010
Bend, Oregon

Project Number 110010
Siemens & Associates

This report presents our professional opinion based upon geophysical measurement and interpretation presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar work in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct this exploration and look forward to assisting you work out an effective repair. If you have any questions, just ask.

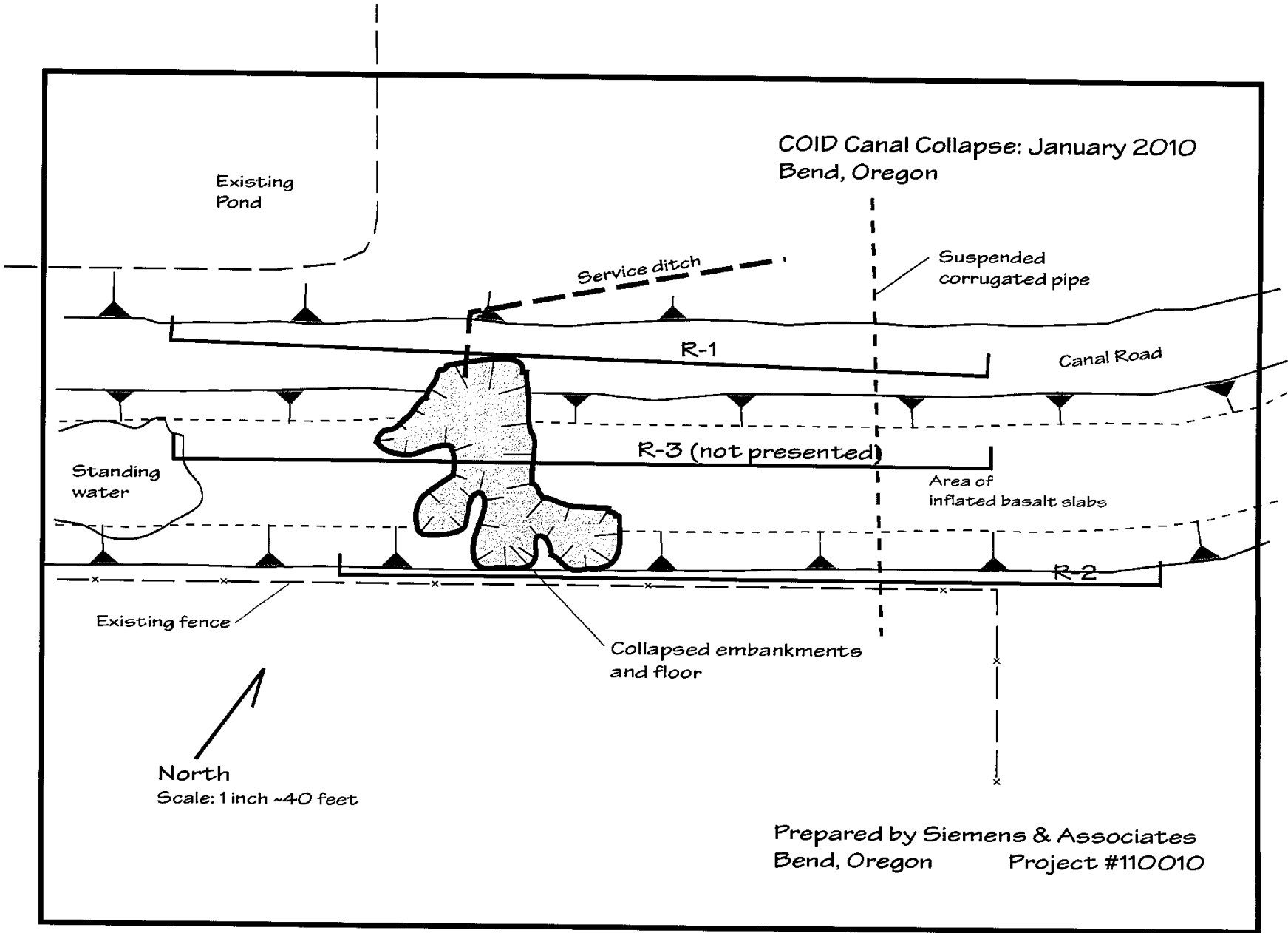
Respectfully submitted,
Siemens & Associates



J. Andrew Siemens, P.E., G.E.

Addressee: 1 electronic
Enclosures: Site Plan,
R-1, R-2

Renews 4/30/2010

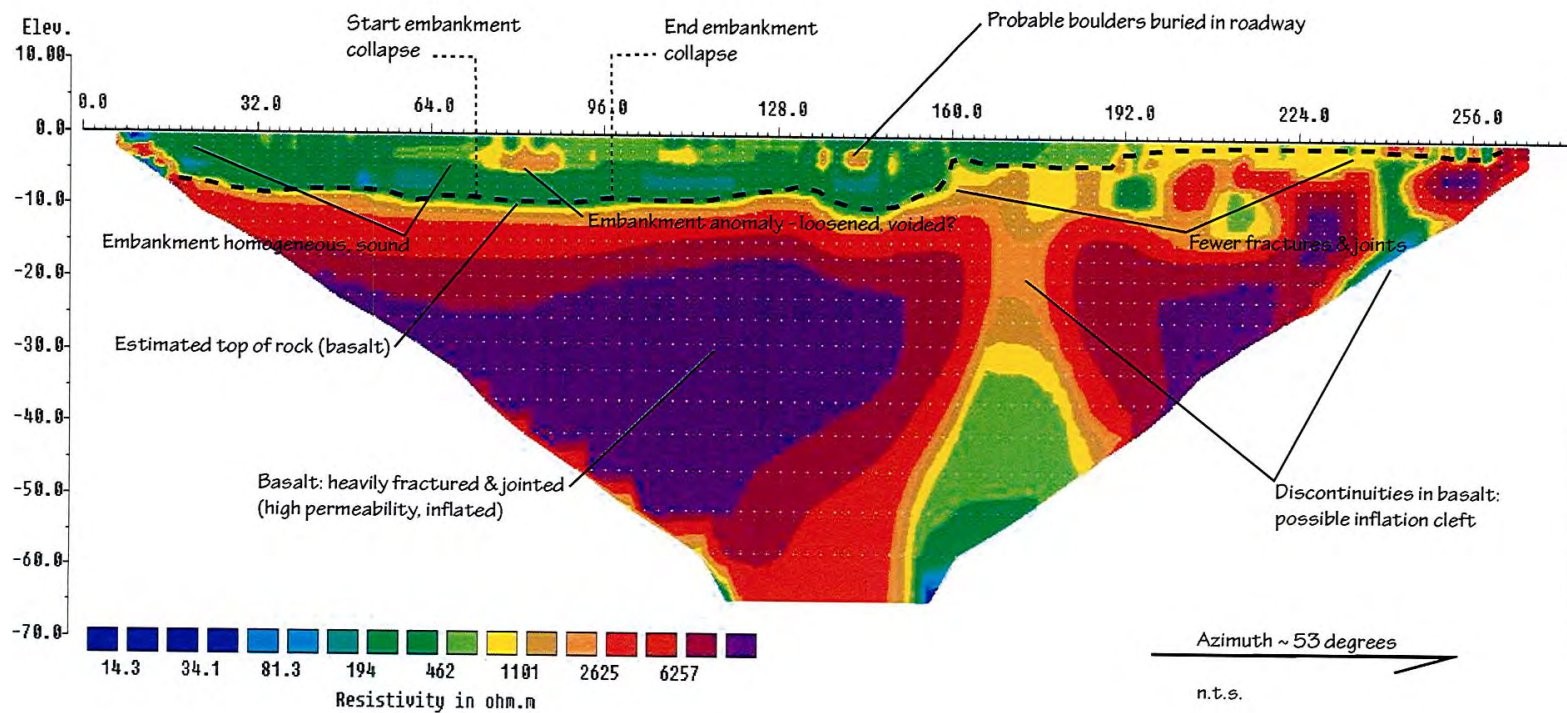


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COID Canal Collapse
Bend, Oregon

January 2010

Electrical Resistivity Tomography: R-1
Left embankment: 56 electrodes on 5 foot spacing, Dipole-Dipole array



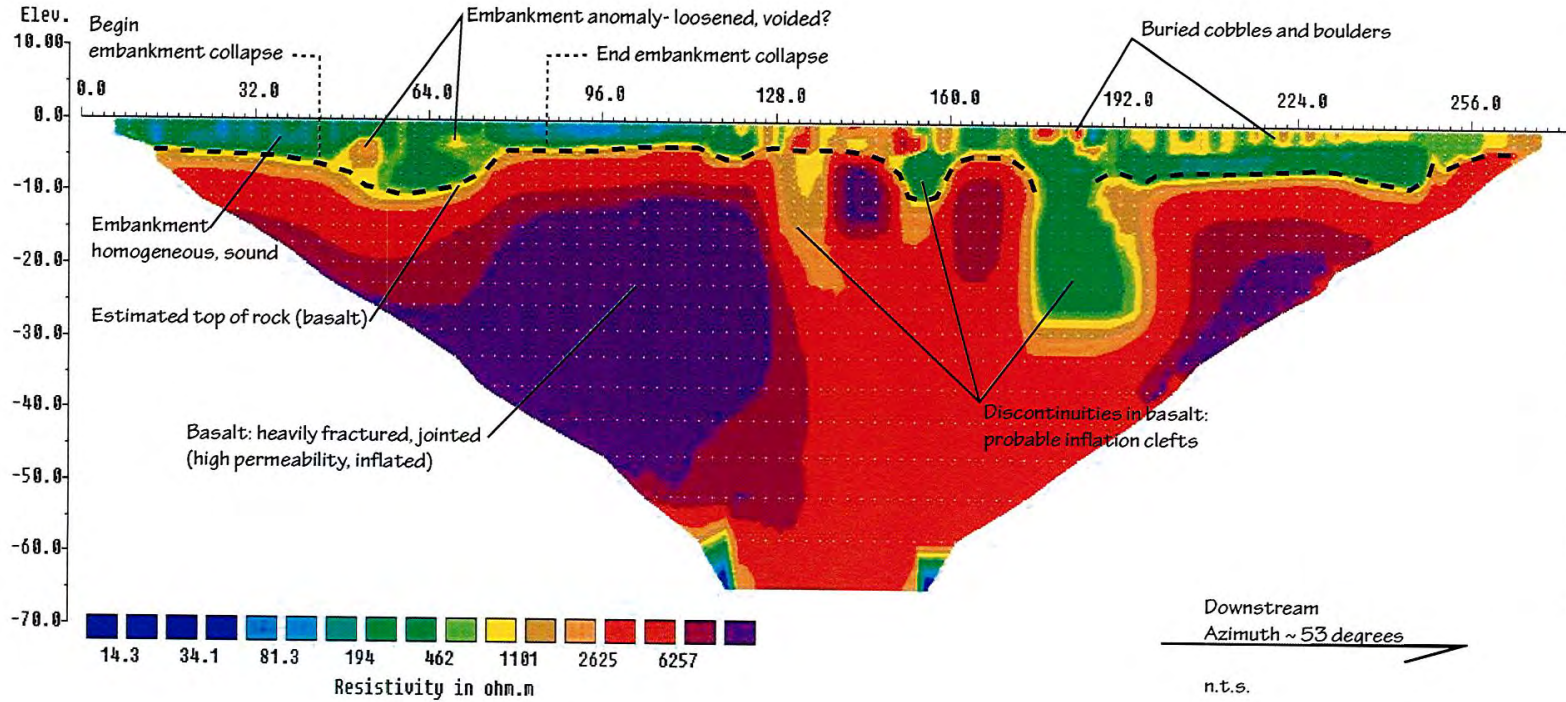
Prepared by: Siemens & Associates
Bend, Oregon

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COID Canal Collapse
Bend, Oregon

January 2010

Electrical Resistivity Tomography: R-2
Right embankment: 56 electrodes on 5 foot spacing, Dipole-Dipole array



Prepared by: Siemens & Associates
Bend, Oregon

Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central

LOCATION 4

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

January 29, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance During Repair

Gentlemen,

Since our meeting at your office last Friday, January 22, 2010 we have been assisting with the repair effort that is currently underway. This letter is prepared as an update concerning findings and repair strategy.

The effort has progressed essentially as envisioned during our meeting beginning with an exploratory effort that included verification of collapse boundaries and probable cause. In our view, the conclusion that the collapse is a result of subterranean erosion of loose soils into underlying basalt cracks and fissures (clefs) remains to be the most likely cause of the collapse.

A recent snow fall promoted an approximate one day delay while the temperatures climbed and the snow was removed by spraying with water. The effort was very successful and as a result, the collapse soils that are removed will be free of snow and suitable for reuse.



A significant volume of very loose and erosion vulnerable soil is being removed from the collapse zone resulting in excavation depth through a small area on the left side that was about 13 feet deep as measured from the canal bottom. Although difficult to

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judge, we estimate that the average excavation depth was probably on the order of about 6 to 8 feet from canal bottom. Total volume to be restored is expected to be on the order of 1000 to 1200 cubic yards, a large portion of which will be made up from excavation spoils. The remainder will be import mostly from JAL's West Butte Pit near Millican, Oregon.



We have visited and sampled materials from West Butte Pit and based on our data, visual review, and with test results provided by JAL, we judge that suitable materials are available to complete the repair. An additional import source for clayey material has yet to be defined for the recommended low permeability zone.

Soils and collapse debris are being removed to expose either a rock subgrade as judged from bucket refusal or to an apparently firm combination of rock and soil in apparently undisturbed condition. From this point, we recommend proceeding with a sequence of repair tasks as follows:

1. Continue loose soil removal to expose firm subgrade composed of either rock or competent soil.
2. Moisture condition the thin layer of soil remaining at the subgrade level while washing soil into suspect areas likely to host large cracks and fissures.
3. Hoe-pack subgrade.
4. Place primary protective filter: Use 3 inch minus basalt from stockpile at JAL's West Butte Pit, Millican, Oregon. This layer should be distributed to achieve an approximate 2 foot thickness (or greater) over the entirety of the subgrade. The primary filter should be nestled into place with vibratory energy delivered by a hoe-pack.
5. Place secondary protective filter: use ODOT ¾ inch minus crushed aggregate – acceptable material includes JAL's stockpile at West Butte Pit. The thickness of the secondary filter should be at least 1 foot and the layer should be moisture conditioned and heavily compacted using a hoe-pack.
6. Restore left and right embankments – the left embankment (looking downstream) should be

rebuilt using the reject fines tested from West Butte Pit. Select spoils are acceptable for restoring the right embankment. Restoration soils should be moisture conditioned, placed in thin, horizontal lifts (about 1 foot) and heavily compacted while integrating the contact with the existing embankment. The embankment lines should consider the volume necessary for clay and rip rap finishes.

7. Place low permeability (clayey) layer over top of secondary filter layer and up the restored embankment slopes approximately 1 foot above high water line. Acceptable source to be researched by contractor (JAL) and approved by geotechnical engineer (Siemens). Low permeability layer should be 1 foot thick or greater and heavily compacted.
8. Refill remaining area using onsite spoils separating boulders as is reasonably practical for later use as onsite rip rap. Refilling should commence to within about 1 ½ foot of finished canal grade.
9. Restore rip rap protection throughout repaired zone and integrate with undisturbed areas.
10. Rebuild flow gate and check structure as directed by COID at left embankment

This report presents our professional opinion based upon visual review of the conditions encountered combined with previous geophysical measurement and interpretation. The conclusions and recommendations are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar repair in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct be of service and look forward to assisting you work out an effective repair. If you have any questions, just ask.



Respectfully submitted,
Siemens & Associates

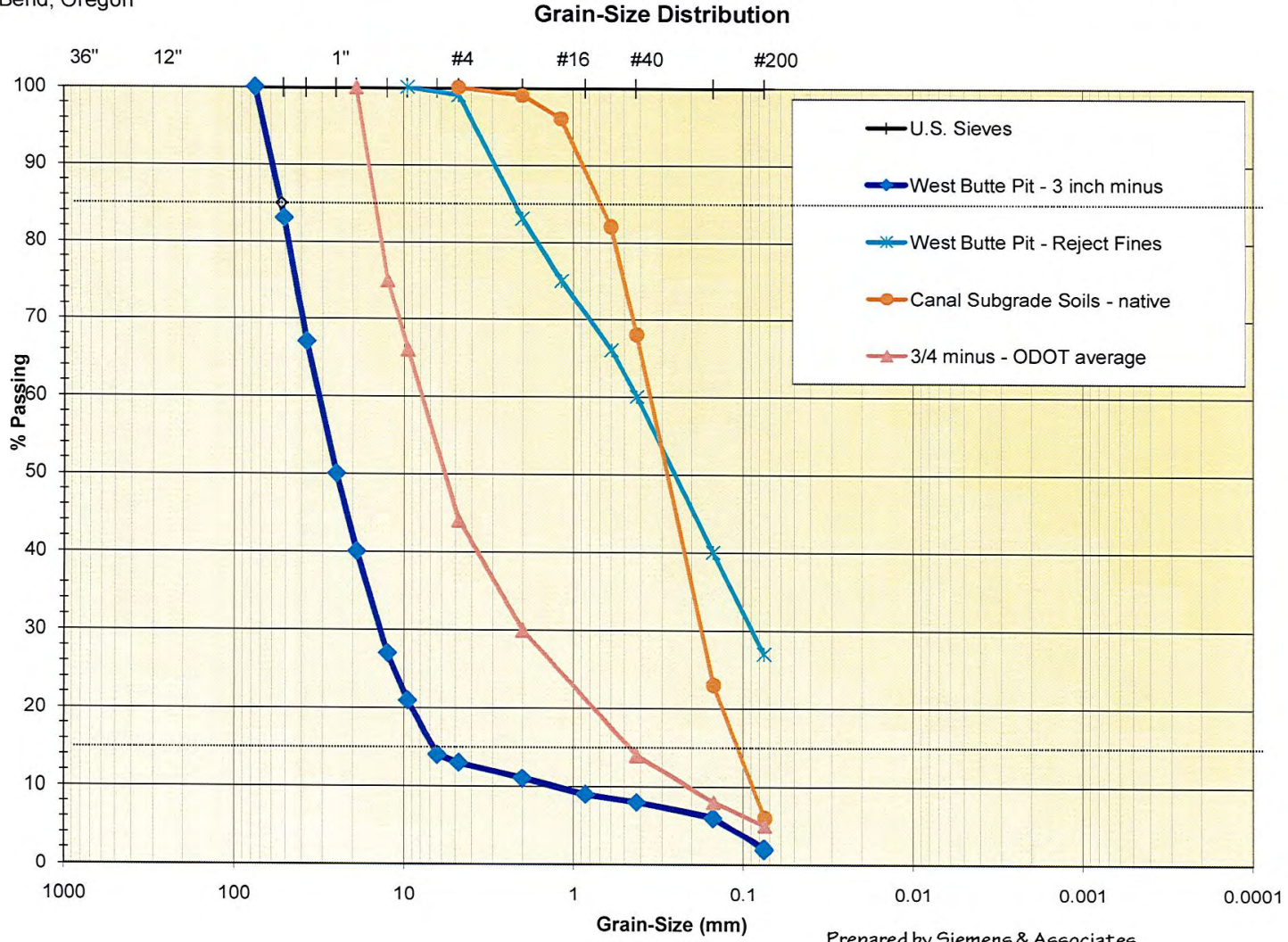
J. Andrew Siemens, P.E., G.E.

Renews 4/30/2010

Addressee: 1 electronic
Enclosures: Grain-Size Distribution Curves

COID Canal Collapse - January 2010
Bend, Oregon

Project Number: 110010



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Bend, Oregon

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LOCATION 4

SIEMENS & ASSOCIATES

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

April 5, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance – Final Observations

Gentlemen,

We have assisted your contractor (JAL Construction, Inc.) with the repair process which has taken place over the past few months. Our observations support a conclusion that the effort has resulted in an effective and efficient restoration likely to offer many years of service.

The conditions encountered as the work progressed were consistent with those anticipated as a result of the original reconnaissance and the repair process itself advanced in general accordance with our recommendations (described in letter to COID dated 1-29-'10) with a few modifications. It is our opinion that the contractor performed the work diligently to complete the task on time for a reasonable cost.

Before and after photographs:



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The repair included removal of erodible soils through the affected zone, replacement of the materials with a graded filter composed of successively finer layers from the bottom up all capped with a layer of basalt cobble and boulder rip rap. In addition, both canal banks were reconstructed using fine grained spoils from onsite excavation or from a silty import. Following completion of the repair, small erosion disturbance developed where the flow swept around the end of the check structure within the repaired area. We suspect that the current exposed an area where the rip rap was not as thick as planned (18 inches or more). This situation was addressed by excavation, placement of geotextile and thicker rip rap and then extending the check all the way across the canal. Finally, the check structure was added additional security by concrete slurry. The fix appears to have corrected the weakness following observations from a subsequent stock run.



Based on our exploration and observations through the reconstruction process, it is our opinion that the District should anticipate some minor adjustments in surfaces as flow through the repaired area identifies minor deficiencies; however, we are confident that the deep seated erosion potential has

COID Canal Collapse: January 2010
Bend, Oregon

Project Number 110010
Siemens & Associates

been fully addressed such that the opportunity for future development of large scale cavities and subsequent canal collapse has been effectively blocked through this interval.

This report presents our professional opinion based upon visual review of the conditions encountered combined with previous geophysical measurement and interpretation. The conclusions and recommendations are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar repair in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct be of service and look forward to a long and prosperous flow through this section of canal. If you have any questions, just ask.

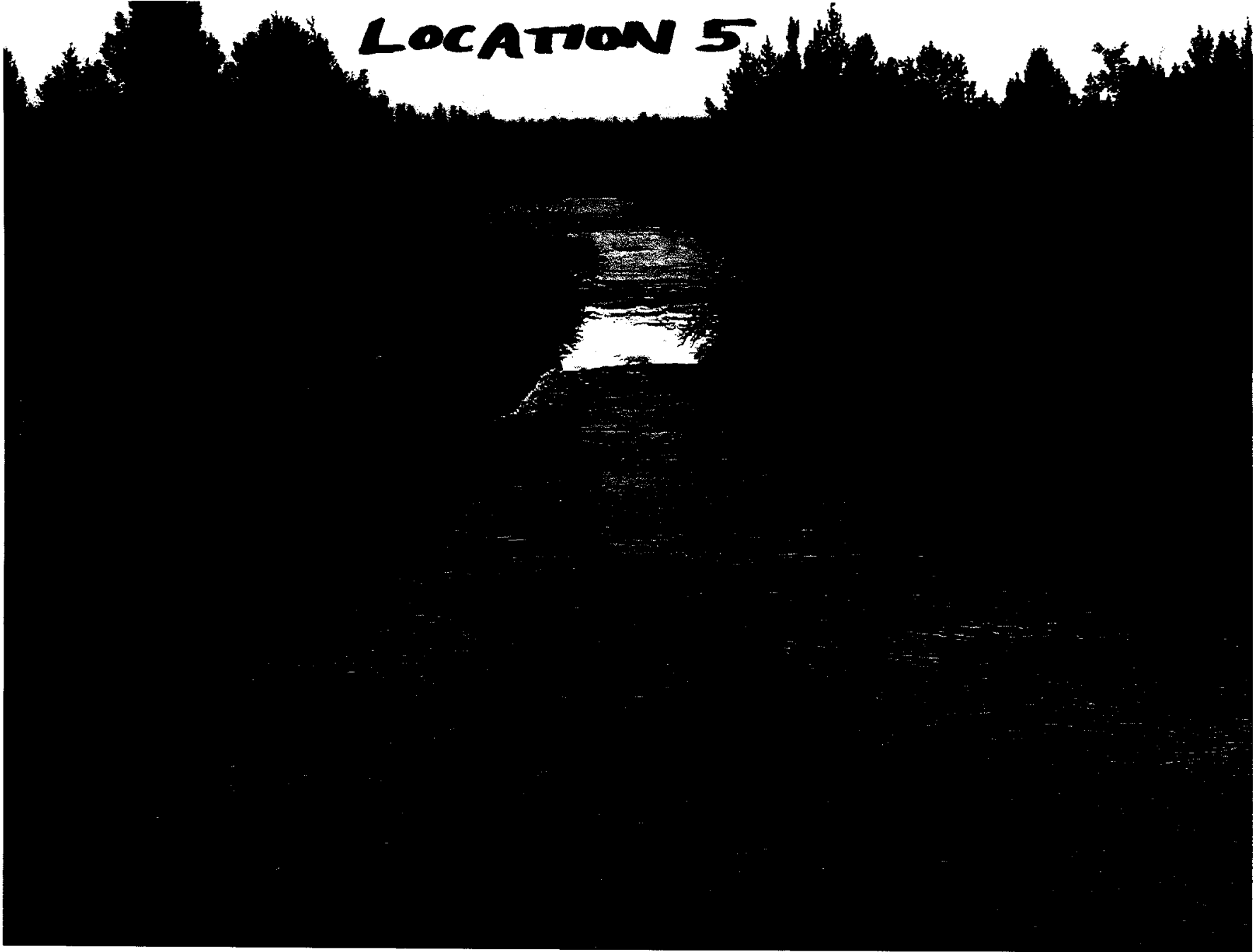
Respectfully submitted,
Siemens & Associates



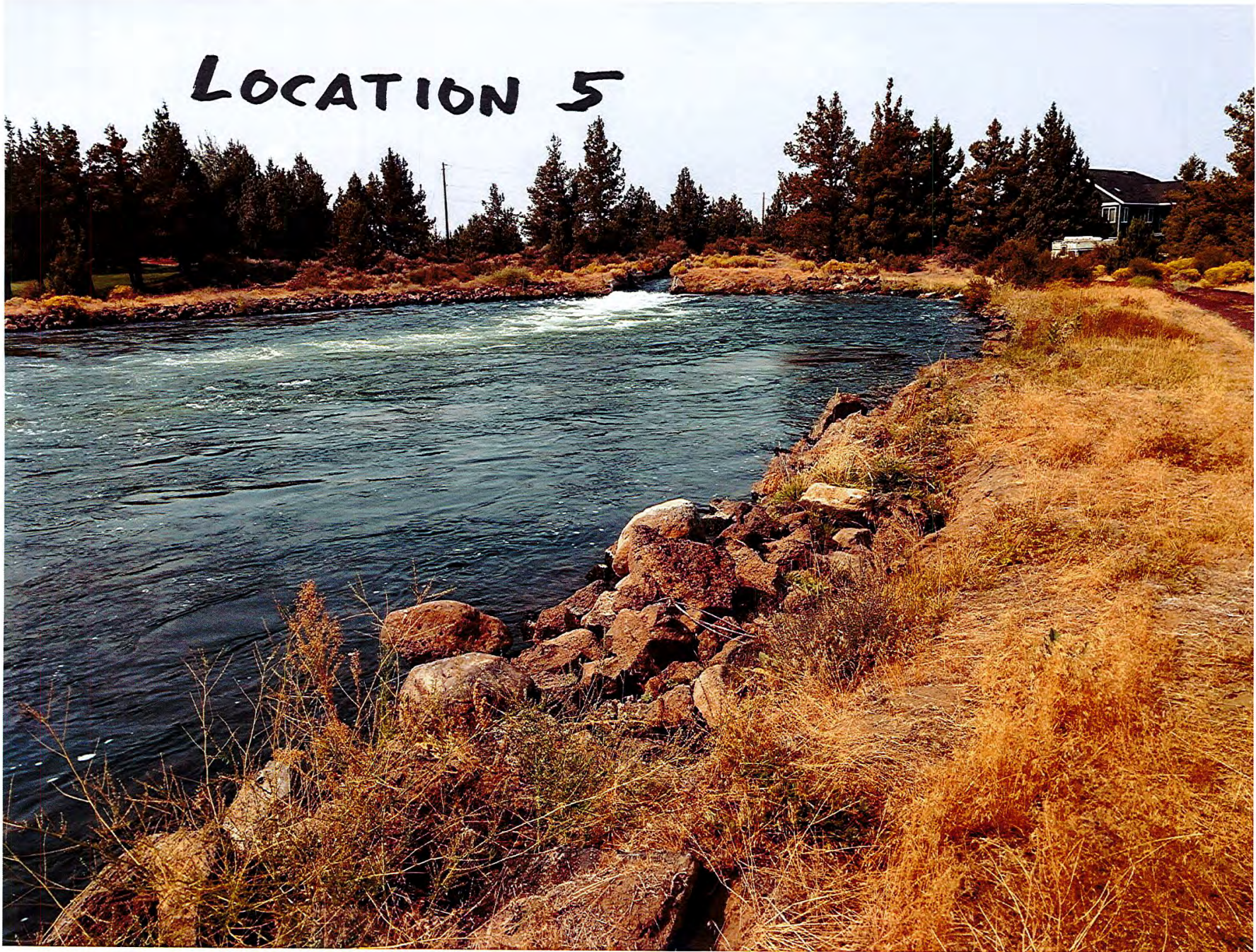
J. Andrew Siemens, P.E., G.E.

Addressee: 1 electronic

Renews 4/30/2010



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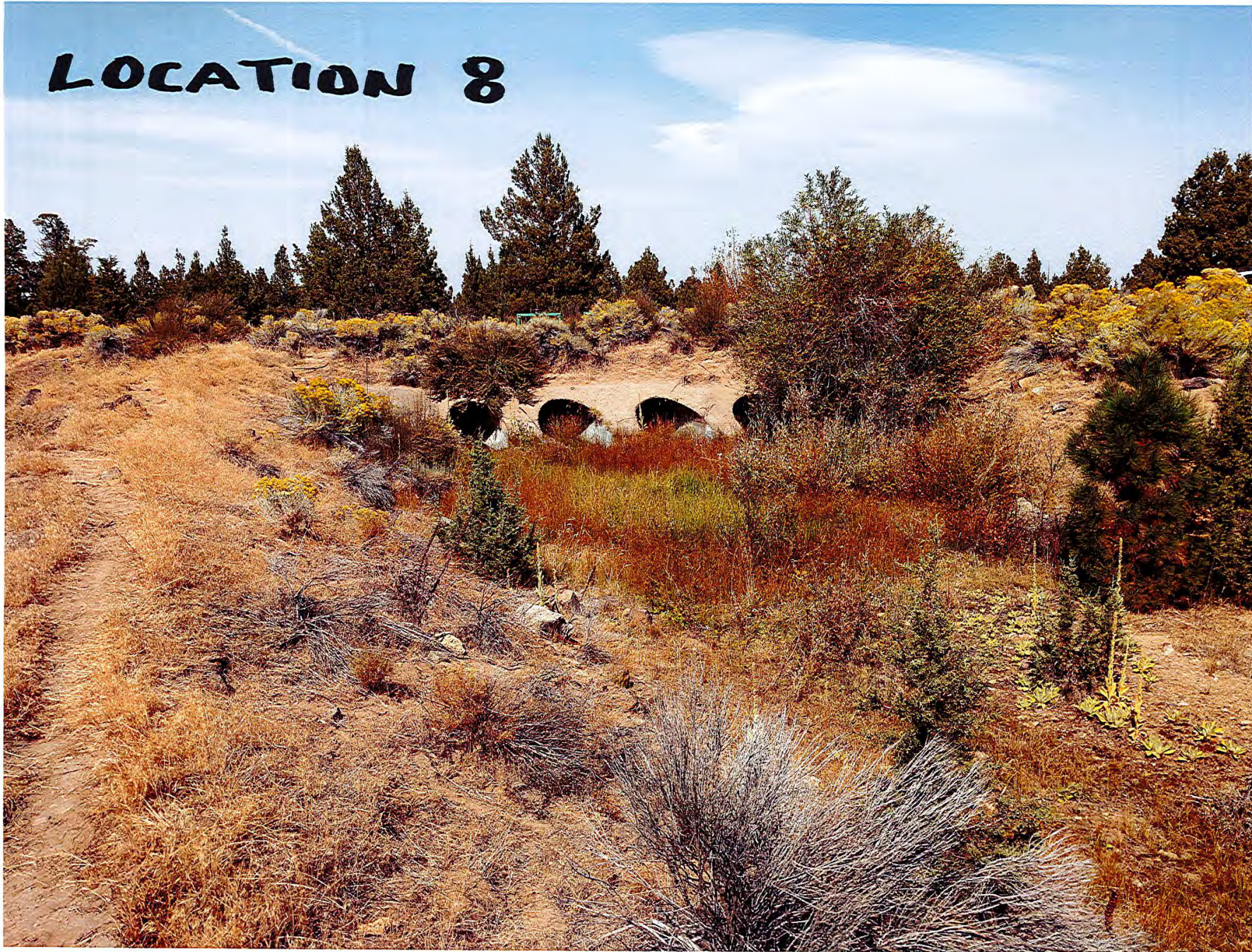
LOCATION 8



Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central



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Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central

LOCATION 9

LarryRoofener

From: Mark Herbert <mherbert@wallacegroup-inc.com>
Sent: Tuesday, July 21, 2015 4:58 PM
To: Larry Roofener
Subject: Central Oregon Canal Report
Attachments: TWG15L033 Central Oregon Canal.pdf

Hi Larry:

Attached is our Geotechnical Reconnaissance Report for the Central Oregon Canal section we observed near Gosney Lane.

Thanks for providing this opportunity to help COID with its risk management effort on this section. Would you please have Craig review and sign our services agreement, or send us a different form of agreement if you prefer.

Please call if you have questions.

Best regards,

Mark

Mark V. Herbert, PE, GE
Principal Geotechnical Engineer

The Wallace Group, Inc.
 62915 NE 18th St, Ste 1
 Bend, OR 97701
 P: 541.382.4707
 F: 541.383.8118
 C: 541.410.9800
mherbert@wallacegroup-inc.com



Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)



TECHNICAL MEMORANDUM

Date: July 21, 2015

To: Mr. Larry Roofener, Operations Manager
Central Oregon Irrigation District
1055 SW Lake Road
Redmond, OR 97756

From: Mark V. Herbert, P.E., G.E., Principal Geotechnical Engineer

Subject: **Geotechnical Reconnaissance Report
Central Oregon Canal, Upstream from Gosney Lane
Bend, Oregon**

Project No. 10574, Task 1



Background

Wallace Group, Inc. (Wallace Group) was retained by the Central Oregon Irrigation District (COID) to conduct a geotechnical reconnaissance of the Central Oregon Canal embankment, located approximately 500 feet upstream of the canal's intersection with Gosney Lane, about five miles east of Bend. We understand the canal embankment in this reach has leaked continually during irrigation season for several years, however, the seepage rate reportedly has increased recently. A section of embankment has reportedly slumped, indicating some movement of the embankment has occurred. The purpose of our reconnaissance was to evaluate the canal embankment to assist COID in both temporary monitoring and long-term repair efforts. The canal in this reach was formerly a raised flume, which was later replaced with a raised embankment.

A summary of the conditions encountered during our reconnaissance and preliminary recommendations are presented below.

OBSERVATIONS

The canal embankment ranges from about 6 to 12 feet above the surrounding topography. Embankment construction records are not known to exist, however, most regional canals were built with basalt rock rubble produced during canal excavation. Some native soil was likely blended with the rock rubble, otherwise, seepage would be

excessive. We observed seepage at several locations about 5 to 10 feet below the adjacent ditch rider road. Several, shallow Tee-handle probes revealed up to three feet of soft, saturated soils overlying what is likely basalt bedrock. A shallow pool of water was observed on an adjacent irrigation pasture, about 25 feet north of the embankment toe. The property owner reported the pool has existed in past years, but the volume of ponded water is greater this year. We did not observe flowing water, however, standing water was observed along the embankment slope. The water also relatively appeared clear, indicating erosion of fine soil particles was not significant.

Along the canal bank where the ponded water is located, we observed a section of embankment that appeared to have slumped about 1½ feet vertically. The soils below the slump are saturated and very soft. The COID ditch rider reported this earthen slump is relatively recent. The ditch rider road along this section appears that it may also be settling, although the magnitude may only be a few inches.

The canal embankment and bottom in this section appear to be of similar, basaltic boulder construction, so it is likely that seepage is occurring laterally through the northern embankment and through the canal bottom. COID reported that seepage has not been observed on the south side of the canal embankment, even though it is also raised several feet above the surrounding terrain.

CONCLUSIONS AND RECOMMENDATIONS

Based on our observations, it appears that failure of the northern canal embankment in the area observed is not imminent. Therefore, repair efforts can be completed when the current irrigation season ends. However, if seepage increases or if flowing water is observed on the canal bank, some short-term remedial measures may be required. We assume the seepage area will be monitored daily or at least weekly by the ditch rider. Evidence of increased seepage or fresh embankment sloughing should be reported to Wallace Group immediately.

We also recommend 6 to 8 survey hubs be placed on the ditch rider road and northern embankment in wet areas to allow periodic survey monitoring. We recommend 3 to 4 hubs be placed on the north edge of the ditch rider road, and a similar number placed on the embankment. We recommend the hubs be monitored monthly, with results of lateral and/or downward movement reported to Wallace Group.

Long-term solutions include piping this section of canal, and lining the canal with roller-compacted concrete and/or shotcrete. Short-term measures to reduce seepage include placing impervious fabric against the canal bank and bottom, however, this would require a temporary shutdown of the canal, if needed during irrigation season.

After irrigation season ends, we should re-evaluate the inside of the canal bank and bottom to provide additional insight concerning the observed seepage. Ideally, we should observe the canal just after the water is shut off, to observe for areas where water may be funneling through sinkholes or porous rock areas. It may be warranted to excavate a few test pits into the canal ditch rider road, or on the northern canal bank. However, backhoe exploration will disturb the existing embankment, thus any subsurface exploration should proceed with caution.

LIMITATIONS

Wallace Group's scope of services included a visual geotechnical evaluation of the existing conditions at the subject site and were performed using a mutually agreed upon scope of services. Our opinions, conclusions and recommendations are based on our observations and local experience with similar soil conditions. Variations from the conditions reported herein are possible and are sometimes sufficient to alter our conclusions. The Client must recognize that it is impossible to predict every subsurface condition that could be present. If new or additional information becomes available, we should be notified to evaluate the information and recommend an appropriate alternative course of action. The professional judgments expressed in this report meet the standard of care of our profession; however, no warranty is expressed or implied.

LOCATION 9



Attachment: Exhibit B_53971008_1 (1600 : Consideration of Commenting on Nomination of the Central

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130500 Tax Lot: 01200, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

10.11.17

Sign Full Legal Name

Date

CRAIG HORRAN

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) or Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756

Mailing Address - Street

City

State

Zip

State of Oregon

County of Multnomah

Signed or attested before me on October 11, 2017 by

[Handwritten Signature]

Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Attachment: Exhibit C_53971105_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 181201B0 Tax Lot: Canal Lot, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature] 10.11.17
Sign Full Legal Name Date

CRAIG HORIZELL
Print Full Legal Name

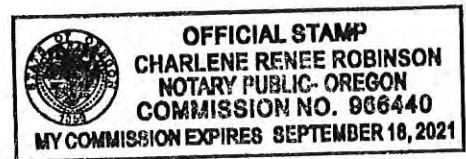
Central Oregon Irrigation District
Legal Name(s) on Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND, OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah

Signed or attested before me on Oct 11, 20 17 by

[Signature]
Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Attachment: Exhibit C_53971105_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130300 Tax Lot: 01600, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature] 10.11.17
Sign Full Legal Name Date

CRAIG HORZELL
Print Full Legal Name

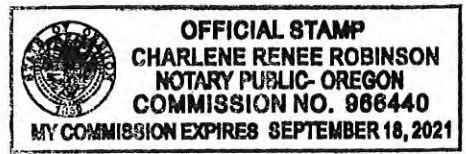
Central Oregon Irrigation District
Legal Name(s) or Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah

Signed or attested before me on Oct. 11, 20 17 by

[Signature]
Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Attachment: Exhibit C_53971105_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130800 Tax Lot: 00500, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature] 10.11.17
Sign Full Legal Name Date

CRAIG HORZELL
Print Full Legal Name

Central Oregon Irrigation District
Legal Name(s) on Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah

Signed or attested before me on Oct. 11, 20 17 by

[Signature]
Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Attachment: Exhibit C_53971105_1 (1600 : Consideration of Commenting on Nomination of the Central Oregon Canal)

AGENDA REQUEST & STAFF REPORT

For Board of Commissioners Work Session of October 16, 2017

DATE: October 9, 2017

FROM: Cynthia Smidt, Community Development, 541-317-3150

TITLE OF AGENDA ITEM:

Discussion of Application for Outdoor Mass Gathering for 4 Peaks Music Festival

ATTENDANCE: Cynthia Smidt, Community Development

SUMMARY: The Deschutes Board of County Commissioners is conducting a work session on October 16, 2017 in preparation for their public hearing on October 23 to consider a proposal by 4 Peaks Presents, LLC for an Outdoor Mass Gathering permit. The applicant, 4 Peaks Presents, LLC, is proposing to hold the 2018 - 4 Peaks Music Festival at 21085 SE Knott Road, Bend, in June. The music festival is a multi-day event that would include RV and tent camping, parking, and food and drink for an estimated 3,000 people, including staff and volunteers.

From: [JOHNSON Ian * OPRD](#)
To: [CURRAN Chrissy * OPRD](#)
Subject: FW: Brasada Ranch
Date: Tuesday, October 17, 2017 1:40:39 PM
Attachments: [image002.png](#)

FYI



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 1:39 PM
To: Matt.Singer@hklaw.com
Cc: chorrell@coid.org; Chris Horting-Jones
Subject: RE: Brasada Ranch

Matt,

Thanks for contacting me. Yes, please do let us know if the owner of Bradsada Ranch changes their mind. It is a very straight-forward process to list a property in the National Register once it has been officially determined eligible for listing.

Because of COID's ongoing concerns with how our agency has proceeded with the MOA we believe that a meeting with the all the signatories of that document is necessary. I have not yet heard back from Chris Horting-Jones on this topic, copied above.

We look forward to working with the parties on this ongoing project.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Matt.Singer@hklaw.com [<mailto:Matt.Singer@hklaw.com>]
Sent: Tuesday, October 17, 2017 10:30 AM
To: JOHNSON Ian * OPRD
Cc: chorrell@coid.org
Subject: Brasada Ranch

Mr. Johnson,

COID was surprised to hear of Brasada's objection to the historic designation. Brasada had long been supportive of the nomination, but apparently recently had a change in management. We will be reaching out to them to see if there may be some willingness to reconsider. If not, then we think proceeding in accord with the MOA would be appropriate and that a meeting involving the parties to the MOA should be scheduled. Nothing about these events changes COID's many objections to the Ward-to-Gosney objection. Nor does it alleviate our concerns about how SHPO has proceeded with that nomination despite the terms of the MOA.

Sincerely,

Matthew Singer | Holland & Knight

Partner

Holland & Knight LLP

Alaska | Oregon

Mobile 907.830.0790 | Office 907.263.6318

matt.singer@hklaw.com | www.hklaw.com

[Add to address book](#) | [View professional biography](#)



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From: [JOHNSON Ian * OPRD](#)
To: [ZELLER Tracy * OPRD](#); [ALLEN Jason * OPRD](#); [CURRAN Chrissy * OPRD](#); [Deborah Schallert](#); [Dow Beckham](#); [Stephen](#); [Gallagher, Mary](#); [Oberst, Mary](#); [Osborne, Julie](#); [Peting, Don](#); [Trice Gwendolyn](#); [Tveskov, Mark](#)
Subject: RE: COID - Comments on Ward-to-Gosney Nomination
Date: Wednesday, October 18, 2017 9:53:15 AM
Attachments: [image002.png](#)

Hello All,

Steve sent an email to me this morning asking about COID's comments Tracy forwarded yesterday.

According to the federal regulations any individual can nominate any property to the National Register of Historic Places. The questions COID raises regarding ownership and the MOA will be addressed by our office, but have no bearing on the part of the process that the SACHP is asked to complete, specifically determining if the documentation is adequate and if the property is indeed eligible for listing. Further, even in the event that the majority of the owners object to listing, the proponents may petition to send the nomination to NPS for an official Determination of Eligibility. In this process, the property is not in the Register, but NPS makes a decision about whether the property is or is not eligible for listing. The issues COID raise in their letter are not cause to halt the process.

I encourage the Committee to read the letter and accompanying documentation carefully, paying special attention to COID's evaluation of the property's eligibility for listing. Please weigh their opinions against your own knowledge and other testimony received.

As part of our regular public meeting we already have a session scheduled to talk about National Register eligibility. If the group would like to expand this discussion to talk generally about the nomination process and the rules for counting objections we can certainly make time for that.

I look forward to seeing you all on Friday.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: ZELLER Tracy * OPRD
Sent: Tuesday, October 17, 2017 2:54 PM
To: ALLEN Jason * OPRD; CURRAN Chrissy * OPRD; Deborah Schallert; Dow Beckham, Stephen; Gallagher, Mary; JOHNSON Ian * OPRD; Oberst, Mary; Osborne, Julie; Peting, Don; Trice Gwendolyn; Tveskov, Mark; ZELLER Tracy * OPRD
Subject: FW: COID - Comments on Ward-to-Gosney Nomination

More comments regarding the Central Oregon Canal Historic District.

From: [JOHNSON Ian * OPRD](#)
To: Matt.Singer@hklaw.com
Cc: chorrell@coid.org; [CURRAN Chrissy * OPRD](#)
Subject: RE: MOA-SHPO/COID/BOR
Date: Tuesday, October 31, 2017 4:17:34 PM
Attachments: [image002.png](#)
[BrasadaDOE_notice.pdf](#)

Matt,

Thanks for contacting me, yes, we would be interested in meeting with COID and BOR. We're happy to come to the Redmond area for the day.

A quick look at calendars shows that November 16, 17, and 27-30 are open. After that we are looking at the second full week in December. Let me know if any of these dates work. If not, let me know and I can look into pushing appointments.

I've also attached our notification letter for the Brasada Ranch nomination for your records.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Matt.Singer@hklaw.com [mailto:Matt.Singer@hklaw.com]
Sent: Tuesday, October 31, 2017 11:21 AM
To: JOHNSON Ian * OPRD
Cc: chorrell@coid.org
Subject: MOA-SHPO/COID/BOR

Ian,

Is SHPO still interested in scheduling a meeting to discuss COID's concerns about the MOA between SHPO, COID, and BOR? Please advise if you would still like to meet, and if so, when and where would be convenient.

Sincerely,

Matthew Singer | **Holland & Knight**

Partner

From: [JOHNSON Ian * OPRD](#)
To: Matt.Singer@hklaw.com
Cc: [CURRAN Chrissy * OPRD](#)
Subject: RE: MOA-SHPO/COID/BOR
Date: Wednesday, November 01, 2017 11:48:30 AM
Attachments: [image002.png](#)

Thanks Matt, I will begin shopping that week with the folks we would like to attend. At this point, possible attendees include myself, Jason Allen, and my supervisor Christine Curran.

We are also asking our Director, Lisa Sumption and Annette Liebe from the Governor's office if they would like to attend. Annette had previously asked us to include her in any discussions. I am not sure if either Lisa or Annette will attend. I have let both know that the meeting will be sometime the week of the December 11th.

I'll get back to you once I have confirmed who would like to attend.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Matt.Singer@hklaw.com [mailto:Matt.Singer@hklaw.com]
Sent: Wednesday, November 01, 2017 9:44 AM
To: JOHNSON Ian * OPRD
Cc: chorrell@coid.org; CURRAN Chrissy * OPRD
Subject: RE: MOA-SHPO/COID/BOR

Ian,

Your proposed November dates conflict with some out-of-state travel for Craig Horrell. The week of December 11-15 should work for us and COID would be happy to host the meeting at COID's office in Redmond. Let's reach out to BOR and see if that week works for it, and then we can select a specific day and time. Tuesday, December 12 is the regular monthly board meeting for COID, so it would probably work best to pick Monday or Wed-Friday for COID to avoid a scheduling conflict.

Thank you and we look forward to a productive discussion.

Matthew Singer | **Holland & Knight**

Partner

Holland & Knight LLP

Alaska | Oregon

Mobile 907.830.0790 | Office 907.263.6318

From: [JOHNSON Ian * OPRD](#)
To: [LIEBE Annette * GOV](#)
Cc: [CURRAN Chrissy * OPRD](#)
Subject: Oregon State Historic Preservation Office to meet with Central Oregon Irrigation District week of Dec 11th
Date: Wednesday, November 01, 2017 11:46:56 AM
Attachments: [image001.png](#)

Hello Annette,

My name is Ian Johnson. We met previously at your office at a meeting regarding an NRCS canal piping project. My supervisor, Christine Curran, asked that I contact you.

At our request, the Central Oregon Irrigation District, Bureau of Reclamation, and OPRD will be meeting sometime the week of December 11th to talk about the Memorandum of Agreement between our offices and current citizen efforts to list segments of the Pilot Butte and Central Oregon Canal in the National Register of Historic Places.

I am curious if you are interested in attending this meeting, and if so, what your availability is that week.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Oregon Parks and Recreation Department, Heritage Division
State Historic Preservation Office
Desk: 503.986.0678 cell: 971.718.1137

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Like us on Facebook: <https://www.facebook.com/OregonHeritage>

Visit our Blog, The Oregon Heritage Exchange: <http://oregonheritage.wordpress.com/>

From: [JOHNSON Ian * OPRD](#)
To: [CURRAN Chrissy * OPRD](#); [SHIPSEY Steve](#); [LIEBE Annette * GOV](#); [ALLEN Jason * OPRD](#)
Cc: [SUMPTION Lisa * OPRD](#)
Subject: FW: Meeting between COID, BoR, and OPRD
Date: Monday, November 06, 2017 2:21:57 PM
Attachments: [image001.png](#)

Hello All:

It looks like Friday, December 15th will be the tentative date for our joint meeting with the Central Oregon Irrigation District, Bureau of Reclamation, and OPRD to discuss the Memorandum of Agreement between our offices and ongoing nominations of sections of COID-administered canals to the National Register of Historic Places. Lisa will not be able to join us.

I will know sometime early this week what time the meeting will be and will send out a meeting invitation.

I have requested a mid-morning meeting time to allow us to travel that morning and return the same day. However, given that the weather can be challenging in December some may want to leave Thursday afternoon.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: JOHNSON Ian * OPRD
Sent: Monday, November 06, 2017 2:16 PM
To: Matt.Singer@hklaw.com
Cc: chorrell@coid.org
Subject: Meeting between COID, BoR, and OPRD

Hello Matt,

Thanks again for reaching out to us. It looks like the Friday the 15th will work best for us. If possible, something mid-morning that allows us to leave and return in the same day would be appreciated. Our director, Lisa Sumption, will not be able to attend. However, my supervisor, Chrissy Curran; Annette Liebe from the Governor's Office; Stephen Shipsey from DOJ, and myself and Jason Allen will also attend.

Please confirm the date and a time that works for COID.

I've copied Craig because I noted that you have done this in the past.

From: CURRAN Chrissy * OPRD
To: [AUNAN Lauri * GOV](#); [LIEBE Annette * GOV](#)
Subject: RE: Meeting on historic designation process?
Date: Friday, November 03, 2017 3:04:47 PM

That works for me. Lauri, should I come your way?

Chrissy

Christine Curran

Division Director, Heritage Programs
Deputy State Historic Preservation Officer

State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer Street NE, Suite C
Salem, Oregon 97301
Tel: 503-986-0684
Email: chrissy.curran@oregon.gov

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www.facebook.com/OregonHeritage

Blog - <http://oregonheritage.wordpress.com/>

From: AUNAN Lauri * GOV
Sent: Friday, November 03, 2017 3:03 PM
To: LIEBE Annette * GOV
Cc: CURRAN Chrissy * OPRD
Subject: Re: Meeting on historic designation process?

How about 10:15 am on 11/8

Lauri Aunan
Policy Advisor
Office of Governor Kate Brown
503-373-1680
Lauri.aunan@oregon.gov

Sent from my iPhone

On Nov 3, 2017, at 2:56 PM, LIEBE Annette * GOV <Annette.LIEBE@oregon.gov> wrote:

Chrissy Curran and I were just discussing a variety of SHPO issues in Central Oregon. Chrissy mentioned that she intended to set up a meeting to discuss with you. I offered to help by setting up the meeting. Chrissy has valuable perspective on the recent rule change and potential solutions.

Are you available the morning of November 8th before 11 for a meeting (I will participate via conference call)? I'd like to participate since I'm also planning to attend the meeting in Redmond with COID.

Thanks

Annette Liebe
Regional Solutions Coordinator
Office of Governor Kate Brown
1011 SW Emkay Dr., Suite 108
Bend, OR 97702
(541) 610-7215

From: [JOHNSON Ian * OPRD](#)
To: [Lisa Deline](#); paul_lusignan@nps.gov
Subject: Certified Local Government - Objections to National Register nominations
Date: Monday, December 18, 2017 11:39:21 AM

Hello,

Do either of you know what the citation is for the provision that allows CLGs to block a nomination to the National Register of historic places when the chief elected official and the landmarks commission object in writing? We are updating our grant materials and I have misplaced my notes on this topic and Google is not turning anything up.

Thanks.

Ian

From: [Lusignan, Paul](#)
To: [JOHNSON Ian * OPRD](#)
Cc: [Lisa Deline](#)
Subject: Re: Certified Local Government - Objections to National Register nominations
Date: Monday, December 18, 2017 11:49:52 AM
Attachments: [nhpa.pdf](#)

NHPA Title 54

Section 302504. Participation of certified local governments in National Register nominations.

302504. Participation of certified local governments in National Register nominations
(a) NOTICE.—Before a property within the jurisdiction of a certified local government may be considered by a State to be nominated to the Secretary for inclusion on the National Register, the State Historic Preservation Officer shall notify the owner, the applicable chief local elected official, and the local historic preservation commission.
(b) REPORT.—The local historic preservation commission, after reasonable opportunity for public comment, shall prepare a report as to whether the property, in the Commission's opinion, meets the criteria of the National Register. Within 60 days of notice from the State Historic Preservation Officer, the chief local elected official shall transmit the report of the commission and the recommendation of the local official to the State Historic Preservation Officer.
(c) RECOMMENDATION.— (1) PROPERTY NOMINATED TO NATIONAL REGISTER.—Except as provided in paragraph (2), after receipt of the report and recommendation, or if no report and recommendation are received within 60 days, the State shall make the nomination pursuant to section 302104 of this title. The State may expedite the process with the concurrence of the certified local government. (2) PROPERTY NOT NOMINATED TO NATIONAL REGISTER.—If both the commission and the chief local elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action, unless, within 30 days of the receipt of the recommendation by the State Historic Preservation Officer, an appeal is filed with the State. If an appeal is filed, the State shall follow the procedures for making a nomination pursuant to section 302104 of this title. Any report and recommendations made under this section shall be included with any nomination submitted by the State to the Secretary

<http://www.achp.gov/nhpa.pdf>

Paul R. Lusignan
Historian, National Register of Historic Places
National Park Service
1849 C St., NW - Mail Stop 7228
Washington, DC 20240
202-354-2229

On Mon, Dec 18, 2017 at 2:39 PM, JOHNSON Ian * OPRD

<Ian.Johnson@oregon.gov> wrote:

Hello,

Do either of you know what the citation is for the provision that allows CLGs to block a nomination to the National Register of historic places when the chief elected official and the landmarks commission object in writing? We are updating our grant materials and I have misplaced my notes on this topic and Google is not turning anything up.

From: [ALLEN Jason * OPRD](#)
To: [Craig Horrell](#); Matt.Singer@hklaw.com; [Chris Horting-Jones](#)
Cc: [JOHNSON Ian * OPRD](#)
Subject: COID/SHPO/BoR Programmatic Agreement and MOA completion
Date: Wednesday, December 20, 2017 3:26:19 PM

Hello Craig, Matt, and Chris

Ian and I spoke this morning about the outcome of the meeting between SHPO and COID on Friday, and I wanted to reach out to you to begin direct coordination on the outstanding matters before us.

There are three, by my understanding: (1) the Programmatic Agreement, which needs to be fully drafted and signed; (2) the outstanding elements of the MOA (aside from the PA), specifically the outstanding nomination on Central Oregon Canal (I understand there will be discussions with the expected owner of Brasada once that transaction is complete) and the interpretive elements to be installed; and (3) the current and expected National Register nominations of canal segments. If I have missed something, please let me know.

Ian has assigned me as your single point of contact at our office moving forward. While I will be coordinating our office's actions on these, I will be relying on our staff in the relevant program areas to assist me. These include our regulatory program coordinator Jessica Gabriel (Section 106 and ORS 358.653 compliance), and Robert Olguin, our newly hired National Register Program Coordinator (nominations for listing in the National Register). Robert will be starting here on January 2, and I will be meeting with him and Jessica to bring them up to speed early in January.

As currently signed, the MOA extends to February 25, 2019. That gives us about 14 months to get things completed, though we have the option of extending again if need be.

Regarding each, by point:

1. Programmatic Agreement – my understanding is that COID is currently reviewing Chris Hetzel's September 2016 draft of the PA. Ian and I reviewed that draft as well, and have marked up a copy (pen, in the margins). Because this was given a lower priority when the MPD and nominations began to approach completion, that's as far as it got. Once you have completed your review, perhaps we can schedule a call or meeting after the New Year to consider how to move forward. COID, Reclamation, and our office should be working closely together on this, and I will make it a priority on my end to make sure this happens as quickly as possible.
2. MOA items – besides the PA, there are two items left to complete in the MOA, the listing of a segment of the Central Oregon Canal (such as Brasada), and the installation of interpretive elements at that location, and at the Downtown Redmond segment of the Pilot Butte Canal. With the PBC already listed and done, it is completely reasonable to do the interpretive element there in order to get that element completed and out of the way. Presumably, the Brasada segment will be worked out, but it may be worth considering what alternatives may be available if an agreement cannot be reached. Bear in mind, they will need to be okay with the interpretation element being installed there.
3. Current and future nominations by outside parties – I understand from Ian that COID is aware

of more nominations being considered/prepared by private parties. In my capacity as interim National Register Program Coordinator since June 2017, I have not heard anything about these, so I can't speak to where they are, what they comprise, or how close they are to draft submission. As of right now, the absolute earliest any such nomination could be heard by the SACHP would be the June 2018 meeting. My expectation is that I will be reading and reviewing any such nomination concurrently with Robert Olguin, the new NR coordinator, and that we will be working together to draft revision requirements.

Chris, I assume you will continue to represent Reclamation on this, please correct me if that is not the case.

Matt, please let me know if you wish to be copied on all correspondence relating to this as we move ahead, or if you wish to be notified at specific benchmarks.

Craig, please let me know if you wish to coordinate personally, or if there is someone on your staff with whom we should be coordinating directly.

Cheers,
-Jason

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: [ZELLER Tracy * OPRD](#)
To: [JOHNSON Ian * OPRD](#); [ALLEN Jason * OPRD](#)
Subject: RE: Deschutes County Landmarks Commission Comments on COC
Date: Thursday, December 21, 2017 3:35:23 PM
Attachments: [image001.png](#)

We have not yet received anything from them.

Tracy Zeller, National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: JOHNSON Ian * OPRD
Sent: Wednesday, December 20, 2017 12:21 PM
To: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: Deschutes County Landmarks Commission Comments on COC
Importance: High

For the nominated segment of the Central Oregon Canal, did we receive comments from the Landmarks Commission for the February meeting. And if so, where are they? I cannot find them in paper or on the website. If we didn't get them, Jason, can you follow up with Matt Martin at the County to see if they did send something and we just lost it.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Oregon Parks and Recreation Department, Heritage Division
State Historic Preservation Office
Desk: 503.986.0678 cell: 971.718.1137

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From: JOHNSON Ian * OPRD
To: ["Peter Gutowsky"](#)
Cc: [Nick Lelack](#); [Zechariah Heck](#); [Matt Martin](#)
Bcc: ["JOHNSON Ian * OPRD"](#)
Subject: RE: State Historic Preservation Nominations / Roles and Responsibilities
Date: Thursday, December 28, 2017 10:13:16 AM
Attachments: [nhpa.pdf](#)
[image001.png](#)

Hello Peter, thanks for contacting me. I had planned to contact you and your staff about this very topic in the New Year. At this time I am fairly wide open the first two weeks of January. Please propose some days and times that work for you and your staff.

As you know we made a number of administrative errors in the last mailing for this district. We've corrected those this time around and will not make them again. We can discuss this further when we chat in January.

Yes, you are correct. There is an objection process for local governments. For our discussion, I have attached a copy of the federal law, as well as the relevant excerpted section, see below under my signature line. The Code of Federal Regulations that governs appeals, referenced in the law, is 36CFR60.12. You can find that here: <https://www.gpo.gov/fdsys/granule/CFR-2012-title36-vol1/CFR-2012-title36-vol1-part60/content-detail.html>.

In our collective memory this provision has not been used before in Oregon. I currently have a call into NPS to clarify a couple of points, including if the objection filed by the CLG and chief elected official must be substantive, meaning based on the National Register Criteria or not. I will press to get answers before our meeting.

Thanks.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

Excerpt:

Section 302504. Participation of certified local governments in National Register nominations.

302504. Participation of certified local governments in National Register nominations (a) NOTICE.— Before a property within the jurisdiction of a certified local government may be considered by a State to be nominated to the Secretary for inclusion on the National Register, the State Historic Preservation Officer shall notify the owner, the applicable chief local elected official, and the local historic preservation commission. (b) REPORT.—The local historic preservation commission, after reasonable opportunity for public comment, shall prepare a report as to whether the property, in the

Commission's opinion, meets the criteria of the National Register. Within 60 days of notice from the State Historic Preservation Officer, the chief local elected official shall transmit the report of the commission and the recommendation of the local official to the State Historic Preservation Officer. (c) RECOMMENDATION.— (1) PROPERTY NOMINATED TO NATIONAL REGISTER.—Except as provided in paragraph (2), after receipt of the report and recommendation, or if no report and recommendation are received within 60 days, the State shall make the nomination pursuant to section 302104 of this title. The State may expedite the process with the concurrence of the certified local government. (2) PROPERTY NOT NOMINATED TO NATIONAL REGISTER.—If both the commission and the chief local elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action, unless, within 30 days of the receipt of the recommendation by the State Historic Preservation Officer, an appeal is filed with the State. If an appeal is filed, the State shall follow the procedures for making a nomination pursuant to section 302104 of this title. Any report and recommendations made under this section shall be included with any nomination submitted by the State to the Secretary

From: Peter Gutowsky [mailto:Peter.Gutowsky@deschutes.org]
Sent: Wednesday, December 27, 2017 10:03 AM
To: JOHNSON Ian * OPRD
Cc: Nick Lelack; Zechariah Heck; Matt Martin
Subject: Re: State Historic Preservation Nominations / Roles and Responsibilities

Ian,

I hope this email finds you well. Happy Holidays.

In January, at your convenience, I would like to schedule a conference call with your staff and mine to discuss nominations to the National Register of Historic Places. As you know, Pat Kliewer is nominating a section of COID's canal to the National Register. Our HLC and Board previously recommended denial. It will be helpful for us to know how SHPO handles recommendations of local decision makers. Additionally, it was brought to our attention that there is a federal law that may be applicable to this type of process:

- <https://www.law.cornell.edu/uscode/text/54/302504>

Thanks.

Peter Gutowsky, AICP
Planning Manager
Deschutes County Community Development Department
117 NW Lafayette
Bend, OR 97701
Tel: (541) 385-1709
Web: www.deschutes.org/cdd

From: JOHNSON Ian * OPRD
To: [NR--NPS: LISA DELINE \(E-mail\); "Andrus, Patrick"](#)
Cc: [NR--NPS: PAUL LUSIGNAN \(E-mail\)](#)
Bcc: ["JOHNSON Ian * OPRD"](#)
Subject: Question about CLG Objections to nominations.
Date: Thursday, December 28, 2017 10:23:56 AM
Attachments: [image001.png](#)

Hello,

While you were out I asked Paul Lusignan to send me the information for the Certified Local Government objection. He is copied above.

I have a couple of questions about how this provision actually functions. Some of these questions may be better addressed by our DOJ. If so, just let me know.

1. Does the CLG's objection from the commission and chief elected official need to be substantive? Meaning, do they need to couch their objection in the National Register Criteria or can they simply say that they object or object for a reason not based on the Criteria?
2. Is there any specific language that needs to be in an objection statement, or any other required item other than a signature from the Chair of the local landmarks commission and the chief elected official?
3. The law requires a "reasonable opportunity for public comment." Is there any practical definition of this? In Oregon, our land use laws would lead many to interpret this to be a noticed public hearing.
4. Does the "reasonable opportunity for public comment" apply to both the chief elected official and the landmarks commission, meaning, does there need to be two separate comment opportunities?
5. I read the law to mean that if the CLG objects to the nomination then it is removed from the agenda for the review board meeting pending appeal. I would then understand the CFRs to mean that I would have to re-notice the nomination if the appeal was sustained, meaning that the nomination could not be heard at the meeting that it was scheduled for.
6. The law, Section 302504, states that the appeal is to the "State;" however, the referenced section 32104 references the appeal process per the CFRs, which is to NPS directly. How does the appeal process actually function?

Thanks in advance for your consideration of these questions. If it is easier to discuss this by phone let me know when you are available.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Oregon Parks and Recreation Department, Heritage Division
State Historic Preservation Office
Desk: 503.986.0678 cell: 971.718.1137

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From: Matt.Singer@hklaw.com
To: [CURRAN Chrissy * OPRD](#); steve.shipsey@doj.state.or.us; [JOHNSON Ian * OPRD](#); [ALLEN Jason * OPRD](#)
Cc: [LIEBE Annette * GOV](#); chorrell@coid.org
Subject: Central Oregon Canal Nomination
Date: Tuesday, January 02, 2018 4:11:11 PM
Attachments: [2018.01.02 - Curran Shipsey ltr re Central Oregon Canal Nomination.pdf](#)

Ms. Curran and Mr. Shipsey:

Please see the attached correspondence on behalf of our client Central Oregon Irrigation District. After meeting with you last month, we had expected to hear further from SHPO by now on the two matters discussed in the attached letter, and so we appreciate your prompt attention. I am available at your convenience if you wish to talk by telephone.

Best regards,

Matt Singer | Holland & Knight

Partner

Holland & Knight LLP

Alaska | Oregon

Phone 907.263.6318 | Fax 907.263.6345 | Mobile 907.830.0790

matt.singer@hklaw.com | www.hklaw.com

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From: [JOHNSON Ian * OPRD](#)
To: chorrell@coid.org
Cc: [ALLEN Jason * OPRD](#); [Shipsey Steven](#); [CURRAN Chrissy * OPRD](#)
Subject: Your Phone Call
Date: Tuesday, January 02, 2018 4:56:17 PM

Hello Craig,

I left a voicemail for you today, January 2nd, concerning your call earlier today to Jason Allen. This email is a follow up.

I chatted with Matt Singer on December 20th or 21st last about where we were on the follow up items from our meeting on December 15th. At that time, I was still researching the outstanding questions raised at that meeting.

I sent an inquiry into NPS on how local governments may object to nominations and the interpretation of our own administrative rules. NPS replied today saying that they will respond next week, and I need to touch a couple of bases before responding to the question on our administrative rules. Unfortunately, many of the people I needed to speak to have been out on vacation the last couple of weeks. I have a teleconference scheduled with the staff of Deschutes County for the 12th to go over the objection process with the expectation that NPS will have an answer to me by that time. I have a teleconference scheduled with the SACHP chair for the 5th to share with her COID's concerns about fairness at the meetings.

I see that we just received a letter from Matt this afternoon that he noted would be sent when we chatted the week before last. We'll respond to that soon.

I will be in the office this week if you have other questions.

Thanks.

Ian

From: [JOHNSON Ian * OPRD](#)
To: [SHIPSEY Steve](#)
Cc: [CURRAN Chrissy * OPRD](#); [ALLEN Jason * OPRD](#); [LIEBE Annette * GOV](#)
Subject: RE: Central Oregon Canal Nomination
Date: Tuesday, January 02, 2018 5:02:05 PM

All,

I have been actively following up with NPS, Steve, and others on these issues. I talked to Matt Singer, COID's attorney on December 20th or 21st and provided an update at that time as well. Unfortunately, I was unable to move much farther with folks vacationing over the holidays. Unless there are any objections, I will draft a response tomorrow and circulate it. I do not yet have complete answers from NPS, but likely have enough to respond adequately.

Ian

From: Shipsey Steven [Steve.SHIPSEY@state.or.us]
Sent: Tuesday, January 02, 2018 4:33 PM
To: Matt.Singer@hklaw.com
Cc: CURRAN Chrissy * OPRD; JOHNSON Ian * OPRD; ALLEN Jason * OPRD; LIEBE Annette * GOV; chorrell@coid.org
Subject: Re: Central Oregon Canal Nomination

Thank you Matt; confirming receipt.

Steven Shipsey
971.673.3866 (direct)
503.302.3006 (mobile)

On Jan 2, 2018, at 4:11 PM, "Matt.Singer@hklaw.com<<mailto:Matt.Singer@hklaw.com>>" <Matt.Singer@hklaw.com<<mailto:Matt.Singer@hklaw.com>>> wrote:

Ms. Curran and Mr. Shipsey:

Please see the attached correspondence on behalf of our client Central Oregon Irrigation District. After meeting with you last month, we had expected to hear further from SHPO by now on the two matters discussed in the attached letter, and so we appreciate your prompt attention. I am available at your convenience if you wish to talk by telephone.

Best regards,

Matt Singer | Holland & Knight
Partner
Holland & Knight LLP
Alaska | Oregon
Phone 907.263.6318 | Fax 907.263.6345 | Mobile 907.830.0790
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<2018.01.02 - Curran Shipsey ltr re Central Oregon Canal Nomination.pdf>

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From: CURRAN Chrissy * OPRD
To: [JOHNSON Ian * OPRD](#)
Cc: [SUMPTION Lisa * OPRD](#)
Subject: COID Attorney Chat
Date: Friday, January 05, 2018 2:22:22 PM

Ian,

I phoned Matt Singer, COID atty, and told him we are going to respond to his letter by agreeing to remove the latest canal segment from the February SACHP agenda. This decision is based on the opposition to the nomination by both the chief elected official (county commission) and the county landmarks commission per 54 USC 302504.

I told him we'd like to wait to make that public until we have some answers back from the NPS about appeal rights and other clarifications, so we can answer the questions we will inevitably face from the proponents. He said that's fine, but we ought to notify before the commissions have their next meetings, as the most recent version of the nomination is on both their agendas.

Do you think we can get some answers, at least on how to appeal, from NPS early next week?

Christine Curran

Division Director, Heritage Programs
Deputy State Historic Preservation Officer

State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer Street NE, Suite C
Salem, Oregon 97301
Tel: 503-986-0684
Email: chrissy.curran@oregon.gov

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www.facebook.com/OregonHeritage

Blog - <http://oregonheritage.wordpress.com/>

From: CURRAN Chrissy * OPRD
To: [SUMPTION Lisa * OPRD](#)
Cc: [SHIPSEY Steve](#); [HAVEL Chris * OPRD](#)
Subject: FW: National Register nomination for the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment)
Date: Tuesday, January 09, 2018 1:20:25 PM
Attachments: [image001.png](#)
[SHPOLetter_8January2018.pdf](#)

Lisa,

FYI, we pulled the latest canal nomination off the February SACHP agenda based on a little-known, rarely used, but perfectly legitimate provision of the National Historic Preservation Act. Details are summarized in the attached letter, which was sent out today. This is going up on our website today as well.

Chrissy

Christine Curran

Division Director, Heritage Programs
Deputy State Historic Preservation Officer

State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer Street NE, Suite C
Salem, Oregon 97301
Tel: 503-986-0684
Email: chrissy.curran@oregon.gov

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From: JOHNSON Ian * OPRD
Sent: Tuesday, January 09, 2018 1:15 PM
To: Matt.Singer@hklaw.com
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD; Olguin Robert * OPRD; Peter Gutowsky; Matt.Martin@deschutes.org; Pat Kliewer; CURRAN Chrissy * OPRD; Craig Horrell
Subject: National Register nomination for the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment)

All,

Please see the attached letter from the Oregon SHPO regarding our office's administrative action to halt the nomination process for the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment) per the recommendation of the Deschutes County Board of Commissioners and Deschutes County Landmarks Commission per the provisions of the National Historic Preservation Act, 54 USC 302504.

A paper mailing is going out to the residents along the canal today, as well as to each of the individuals included on this email. The attachment will be available on our website within the next hour. That address is <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Central-Oregon-Canal-Historic-District.aspx> .

Please contact me with any questions. I will be available after 3pm on my cell.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Oregon Parks and Recreation Department, Heritage Division

State Historic Preservation Office

Desk: 503.986.0678 cell: 971.718.1137

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Matt Singer
(907) 830-0790
matt.singer@hklaw.com

January 2, 2018

VIA EMAIL

Chrissy Curran, Deputy State Historic Preservation Officer
State Historic Preservation Office
725 Summer St. NE, Suite C
Salem, OR 97301
Chrissy.Curran@oregon.gov

Steven Shipsey
Sr. Assistant Attorney General
Natural Resources Section
105 SW Market Street
Portland OR 97201
steve.shipsey@doj.state.or.us

Re: Central Oregon Canal Nomination – Ward-to-Gosney Road

Dear Ms. Curran and Mr. Shipsey:

In reviewing the historic nomination of the Ward-to-Gosney Road section of the Central Oregon Canal, we have analyzed the requirements of the National Historic Preservation Act, 54 USC 302504, with regard to participation by certified local governments. That statute requires:

If both the [local historic landmark] commission and the chief local elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action, unless, within 30 days of the receipt of the recommendation by the State Historic Preservation Officer, an appeal is filed with the State.

On October 17, 2017, the Deschutes County Board of Commissioners wrote to SHPO and stated “we recommend that the Ward-to-Gosney Road section of the Central Oregon Canal not be listed on the National Register of Historic Places...” Likewise, the Deschutes County Historic Landmark Commission wrote on October 12, 2017 that “the

Holland & Knight

Chrissy Curran, Deputy SHP Officer
Steven Shipsey, Sr. Ass't Attorney General
January 2, 2018
Page 2

commission does not recommend listing the nomination segment of the Central Oregon Canal as historic district on the National Register of Historic Places.”

Thus, both the local commission and the chief local elected official have provided SHPO with clear written recommendations that the property should not be nominated to the National Register. Pursuant to 54 USC 302504, SHPO should have taken “no further action” on the nominations upon receipt of these local government recommendations. Instead, SHPO convened a hearing of the State advisory commission, tabled the nomination to February, and has worked with the petitioner on several rounds of edits to the nomination.

We are troubled by SHPO’s disregard for the local landmark commission and the board of county commissioners. In response to each objection letter that SHPO received to this nomination, Ian Johnson of SHPO wrote to say that “ultimately it is a local decision whether this segment of the canal will or will not be preserved.” We are puzzled how SHPO on the one hand claims that preservation decisions are “local,” yet at the same time seems to be ignoring the recommendations of local governments in contradiction of federal law.

In addition, we are troubled that SHPO is not following its own rules. SHPO published that any nominations for its February meeting were due on November 1, 2017. But with regard to the Ward-to-Gosney Road section, we understand that SHPO waived the deadline and accepted a newly revised nomination on November 12, 2017. SHPO then issued public notice three-days later, on November 15, of its intent to hold a hearing before the State advisory committee on February 15-16. This process violates SHPO’s own regulations. Specifically, OAR 736-050-026(2) requires: “(2) Due dates for receipt of nominations are not less than 80 days prior to a scheduled meeting and are published in the Handbook.” The Ward-to-Gosney Road nomination was received by SHPO less than 80 days prior to a scheduled meeting.

We would like to know what SHPO proposes to do about the above legal requirements. Could you please explain your position to us? Under the federal statute, it appears that SHPO should take this matter off its February agenda and simply take no further action. Under the state regulation, SHPO should at least push the matter so that the nomination arrives at least 80 days prior to a scheduled meeting. *See Vier ex rel. Torry v. State Office for Servs. to Children & Families*, 159 Or. App. 369, 374-75 (Or. Ct. App. 1999) (noting that an agency is “bound by the practices and policies declared by its rules . . .”).

Holland & Knight

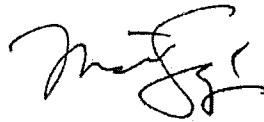
Chrissy Curran, Deputy SHP Officer
Steven Shipsey, Sr. Ass't Attorney General
January 2, 2018
Page 3

COID does not wish to be in a dispute with SHPO. We recognize that SHPO has a dedicated staff that seeks to serve the public, and COID wishes to collaborate with SHPO on several important initiatives. But in fairness to all who come before a state agency, we need a level playing field where all comers are bound by the same rules. And the rules include specific federal statutory requirements that direct SHPO to give credence and deference to the local governments who are most familiar with local historic resources within their jurisdictions. We ask that SHPO please respond to this letter by January 8, 2018. We appreciate your thoughtful consideration.

I am available to discuss this matter at your convenience.

Very truly yours,

HOLLAND & KNIGHT LLP



Matt Singer

MS/jmh

#54792229_v2



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



January 8, 2018

Matt Singer
Holland and Knight LLP
111 S.W. Fifth Avenue
2300 U.S. Bancorp Tower
Portland, OR 97204

RE: Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment)

Mr. Singer:

Thank you for your January 2nd letter regarding the nomination of the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment) to the National Register of Historic Places. Your letter points out, that prior to the review of the nomination on October 20, 2017 by the State Advisory Committee on Historic Preservation (SACHP), both the chief local official and the Certified Local Government (through its preservation commission) recommended against listing of the segment in the National Register, thus triggering a provision of the National Historic Preservation Act (NHPA) that should have compelled the State Historic Preservation Office (SHPO) to take no further action on the nomination.

Our office reviewed the letters provided by the chief local official, in this case, the Deschutes County Board of Commissioners (letter dated October 17, 2017) and the Certified Local Government, in this case, the Deschutes County Historic Landmarks Commission (letter dated October 12, 2017). We have also examined the provisions of the National Historic Preservation Act (54 USC 302504) that provides in part:

“If both the [local historic preservation] commission and the chief elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action[.]” 54 USC 302504

Although neither of these letters cite to the federal law at 54 USC 302504, we agree with your assessment that based on the substance and language of those two letters, the threshold for applying the provisions of 54 USC 302504 has been met and that the NHPA prohibits the SHPO from taking further action on this nomination.

Therefore, in accordance with federal law, the Oregon SHPO is halting the nomination process and removing the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment) nomination from consideration at the February 2018 SACHP meeting, where it was scheduled to receive a second hearing after being “tabled” for major revisions at the October 2017 meeting.

The objections of the Deschutes County Board of Commissioners and Deschutes County Landmarks Commission may be appealed to the Oregon SHPO by submitting a written statement within 30 calendar days of the date of this letter. Appeals are subject to the provisions of the National Historic Preservation Act, 54 USC 302104 and Chapter 36 of the Federal Code of Regulations, Part 60.



Page 2

It is important to the Oregon SHPO to administer the National Register of Historic Places with as much consistency as possible, and we are grateful when we are alerted to nuances in this complex federal program. We have asked the National Park Service to provide additional clarification around the application of 54 USC 302504, and will incorporate what we learn into our administrative process moving forward.

Sincerely,



Christine Curran
Deputy State Historic Preservation Officer

cc:

(By email)

Craig Horrell, Director, Central Oregon Irrigation District
Deschutes County Board of Commissioners, c/o Peter Gutowsky
Deschutes County Landmarks Commission, c/o Matt Martin
Patricia Kliewer, nomination preparer

(By post mail)

Property owners along the nominated segment of the Central Oregon Canal Historic District

Attachments:

Deschutes County Board of Commissioners letter dated October 17, 2017
Deschutes County Historic Landmarks Commission letter dated October 12, 2017



Board of County Commissioners

PO Box 6005, Bend, OR 97708-6005
TEL (541) 388-6570 • FAX (541) 385-3202

www.deschutes.org

Tammy Baney
Anthony DeBone
Philip Henderson

October 17, 2017

Jason Allen
Oregon State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

Dear Mr. Allen:

Thank you for the opportunity to comment on the nomination of the Ward Road to Gosney Road segment of the Central Oregon Canal as a historic district on the National Register of Historic Places.

The Board of County Commissioners (Board) has reviewed and considered the nomination, comments from property owners, the Central Oregon Irrigation District (COID), and stakeholder organizations, and toured the canal. We recognize the historic value of irrigation canal systems in the settlement of Central Oregon, as well as the scenic, wildlife habitat, and quality of life benefits canals provide to our residents and communities.

However, we recommend the proposed Ward-to-Gosney Road segment of the Central Oregon Canal not be listed on the National Register of Historic Places at this time for the following reasons:

- A majority of our Deschutes County Historic Landmarks Commissioners find this segment of the Central Oregon Canal lacks historic integrity and significance sufficient to warrant the listing. They detailed these and other concerns in a letter to your office that was sent on Oct. 12.
- Previously, COID hired experts to conduct a historic study of the district's entire irrigation canal system, including the subject segment, as part of a Multiple Property Document (MPD) process. Based on the MPD, COID nominated two canal segments for listing on the National Register of Historic Places, but did not nominate this segment of the canal.
- Irrigation districts manage canals as water delivery systems to serve their patrons, conserve water, and increase instream flows in the Deschutes River. Historic designations may impose regulatory burdens, barriers, and costs in performing these essential functions, which provide public and private benefits. In this case, with so much of the irrigation system downstream in terms of the number of acres and patrons served, a listing would substantially degrade the District's ability to serve their needs if there was a break or leak in the canal that needed to be fixed.

Thank you for your consideration.


Tammy Baney, Chair


Anthony DeBone, Vice Chair


Philip G. Henderson, Commissioner



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
(541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

October 12, 2017

Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

To Whom It May Concern:

Thank you for the opportunity to comment on the nomination of a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places. The Deschutes County Historic Landmarks Commission (HLC) received public testimony regarding the nomination at a meeting on October 2, 2017. The HLC chose to not complete review of the nomination at the meeting. Instead, each commissioner independently reviewed the nomination, considered the testimony, and submitted comments to staff to compile and summarize.

First, it is important to emphasize that the HLC recognizes the historic importance and significant role irrigation canal systems have had in the region. These water delivery systems most certainly contributed to the overall development of Deschutes County since the early 20th century by increasing the viability of agricultural uses that enabled homestead settlement and resulted in rural and urban development present today. With that said, the HLC recognizes that review and consideration of a nomination for the National Register of Historic Places is based on the merits of the application and review criteria.

Enclosed is the completed National Register Nomination Evaluation Sheet. The Evaluation Sheet indicated "Concerns" if any one of the Commissioners specifically expressed concerns regarding a category. Regarding a recommendation, 1 commissioner supports listing the district on the National Register and 3 commissioners (including one ex-officio member) do not. Based on these opinions, the Evaluation Sheet indicates the commission does not recommend listing the nomination segment of the Central Oregon Canal as historic district on the National Register of Historic Places.

For additional context and detail, the following summarizes Commissioner comments on each evaluation category.

INTEGRITY:

- Period of Significance – the property has been altered since its original design in early 1905. Some of the original design features can still be identified, but the irrigation district has altered the original design of the canal through years of maintenance. This raises a critical question of whether the alterations have significantly altered the original character or not. I do not have photos to indicate to support a decision on the impact of the major alterations nor access to any revised dates for the period of significance.
- From the research stated in the nomination, there appears to be significant revisions and improvements done to the canal (particularly beginning in the 1960s) in order for its continued function as a water utility. Few features, despite what the writer is considering 'historic' (headgates, flumes, piers, catwalks, etc.) don't particularly stand out in significance for construction practices or unique features that are already found elsewhere as better examples in the irrigation canal systems. The proposer claims that this segment is the most 'unmodified' portion of the Central Oregon Canal remaining in existence, but the constant upgrades and repairs of the canal indicate that few original (or historic) components still exist.
- Too many alterations and new materials have been added to this canal to meet integrity criteria.
- This portion of the canal, I believe, is historic with regard to construction, materials, design and location.

DESCRIPTIONS:

- In the original application, several elements (examples include Bear Creek Ranch Bridge and Burt Chute) are referenced that were built outside the period of significance for this nomination. Therefore, they cannot be classified as contributing to the district. Without access to the revised application and supporting documents to see if these concerns have been met, I cannot make a recommendation to approve.
- The property is adequately described. There seems to be superfluous information about other parts of the canal system not under consideration for nomination, making the Ward to Gosney segment difficult to interpret. It is also difficult to determine what the proposed 'boundary' (north and south) edges are, even with the accompanying map sources.
- In reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified.

SIGNIFICANCE AND CONTEXT:

- Criterion A - The canal does tell an important part of Central Oregon and Oregon's history. The application clearly presents evidence to support this criteria. The question is whether this is the only section that tells that important story or not.
- Criterion D – The remaining elements for the original canal may tell an important part of our history in Central Oregon. Again, not sure if this same information is available in another section of the canal.
- Although the miles of irrigation canals built throughout Central Oregon have, in small part, contributed to the overall development of the area, the nomination fails to make direct connection to events in the early history of the Deschutes Project with respect to this particular segment under consideration. With Criterion A "requiring events that have

made a *significant* contribution to the broad patterns of our history," this canal does not appear to match much to that criterion.

- One needs to merely reference the above books and memories [*The Oregon Desert*, *Desert Sage Memories*, *The River Flows as the Mountains Watch*, *The Pioneer Spirits of Bend*, and *It Is Too Cold To Snow*] written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923.

FACTS & SOURCES:

- The nomination presents the appropriate and best sources to support this nomination. As presented, the facts and sources seem accurate. The research is excellent.
- It is obvious that an exhaustive amount of research and a plethora of sources were used in creating this nomination. However, there doesn't seem to be strong connection to the area under consideration and those sources. Multiple references to the Carey Act, and a synopsis of local figures, and other various irrigation projects don't seem to be directly connected to this portion of the canal.
- The data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

SUPPORTING MATERIALS:

- The information needed to support this application is included with the nomination. We cannot review and address the revisions raised by SHPO since we do not review the revised application. Supporting material is presented through the application to help support the application.
- Despite a number of photos and maps, very few historic photos seem to be of this part of the canal being considered for nomination. Map sources don't accurately define the north and south boundaries of the proposed District either.

In closing, it is important to reiterate that the HLC recognizes the historic importance and role irrigation canal systems contributed to the overall development of area since the early 20th century. However, outstanding concerns and the lack of historic integrity and significance of this segment of canal prevent the majority of commissioners from supporting the nomination.

Sincerely,



Rachel Stemach,
Commissioner/Designee of Chair
Deschutes County Historic Landmarks Commission

Enclosure

NATIONAL REGISTER NOMINATION EVALUATION SHEET
Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOSNEY ROAD SEGMENT)**

ADDRESS:

BEND, DESCHUTES COUNTY

OK Concerns **INTEGRITY:** Major alterations or additions? New materials? Altered setting? Moved? etc.

OK Concerns **DESCRIPTION:** Is the property adequately described? Have contributing and non-contributing features been clearly identified?

OK Concerns **SIGNIFICANCE and CONTEXT:** Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance?

OK Concerns **FACTS AND SOURCES:** Are the appropriate and best sources used? Are key dates and facts accurate?

OK Concerns **SUPPORTING MATERIALS:** Adequate photos, maps, drawings, etc.?

The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register.

The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register.

Rebecca Staman 10/12/17
Signature of Commission Chair (or Designee) Date

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

DESCHUTES COUNTY HISTORIC LANDMARKS
Name of Local Historic Preservation Commission COMMISSION

Steven G. Liday
steven.liday@millernash.com
503.205.2362 direct line

January 23, 2018

VIA E-MAIL

Chrissy.Curran@oregon.gov

Ms. Christine Curran
Deputy State Historic Preservation Officer
Oregon Heritage
Oregon Parks & Recreation Department
725 Summer Street N.E., Suite C
Salem, Oregon 97301

Subject: Central Oregon Canal Historic District (Ward Road—Gosney Road Segment) (hereafter referred to as the "Nomination")

Dear Ms. Curran:

As you are aware, our law firm represents Aleta Warren. This is in response to your letter dated January 8, 2018, to Mr. Singer, the attorney for Central Oregon Irrigation District ("COID"), in which you announce the termination of further action on the Nomination.

Contrary to the conclusions in your letter, the October 12, 2017, document prepared by Deschutes County staff does not constitute an official act by the Deschutes County Historic Landmarks Commission ("Deschutes County HLC"), let alone a formal report under 54 USC § 302504. As explained below, the decision by the State Historic Preservation Office ("SHPO") to halt review of the Nomination is in violation of federal and state law. We request that your office reverse its decision immediately.

To avoid prejudicial delay to the Nomination preparer and proponents, please also consider this letter an appeal under 54 USC § 302504(c)(2). Under this section, such an appeal triggers SHPO's obligation to immediately continue with the standard nomination process. Accordingly, we request that SHPO reinstate review of the Nomination to the agenda for the February 16, 2018, meeting of the State Advisory Committee on Historic Preservation (the "SACHP").

Finally, we are concerned about SHPO's continuing uneven treatment of historic resources within the state. Accordingly, we also set forth below a public records request for all communications concerning the Nomination, including those that led to SHPO's decision to halt its review.

1. This Letter Qualifies as an Appeal, Triggering the Immediate Reinstatement of the Nomination's Review.

Your office's reliance on 54 USC § 302504(c)(2) to halt review of the Nomination is practically unprecedented inside or outside the state. A nationwide search for publications regarding past occurrences yielded a single result.¹ In fact, the process is entirely omitted from the federal and state regulations concerning review of nominations. 36 CFR § 60.6; 36 CFR § 60.11; OAR 736-050-0001, *et al.*

This limited authority is not surprising, given the narrow impact of the provision. While it is true that a certified local government ("CLG") can theoretically stop further action, the simple filing of an appeal by any person reinstates the standard review process. 54 USC § 302504(c)(2) states that:

"If an appeal *is filed*, the State shall follow the procedures for making a nomination pursuant to section 302104 of this title. Any report and recommendations made under this section shall be included with any nomination submitted by the State to the Secretary." (Emphasis added.)

"Section 302104 of this title" refers to 54 USC § 302104, "Nominations for inclusion on National Register," the primary review authority. Accordingly, once an appeal is filed with SHPO, it must continue the standard review process.

Your letter misstates the law in claiming that appeals of a CLG's recommendation "are subject to the provisions of the National Historic Preservation Act, 54 USC 302104 and Chapter 36 of the Federal Code of Regulations, Part 60." This assertion is contrary to the plain language of the cited code. Subsection d(2) of 54 USC § 302104 concerns only appeals to the Secretary of the National Park Service (the "NPS") when the "nominating authority fails to nominate a property in accordance with this chapter." Likewise 36 CFR § 60.12 relates only to appeals of a "decision of a nominating authority to not nominate a property for any reason when requested pursuant to § 60.11," or the "failure of a State Historic Preservation Officer to nominate

¹ Mark D. Brookstein, When History Is History: Maxwell Street, "Integrity," and the Failure of Historic Preservation Law, 76 Chi-Kent L Rev 1847, 1869 (2001).

Ms. Christine Curran
January 23, 2018
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a property recommended by the State Review Board." In other words, this appeal process to the NPS is only to challenge decisions by SHPO or the SACHP. None of the provisions relate to or even mention CLGs or their recommendations under 54 USC § 302504(c)(2).

Rather, 54 USC § 302504(c)(2) simply requires the state to restart the standard review process upon the filing of any appeal of the CLG's recommendations.² The NPS becomes involved only if the historic property is subsequently nominated by the state.³ Subsection 302504(c)(2) then requires the state to forward the CLG recommendations with the nomination to the NPS.

As other jurisdictions have recognized, the language in 54 USC § 302504(c)(2) is clear and simple to implement. *See, e.g.*, Colorado Certified Local Government Handbook.⁴ We therefore request that SHPO immediately reinstate consideration of the Nomination.

2. The Deschutes County Staff's Compilation of Comments Is Not an Act of the County's Historic Landmarks Commission.

No appeal is actually necessary in this case. The first paragraph of the October 12, 2017, letter from Deschutes County clearly demonstrates that the document is not an official act of the Deschutes County HLC:

"The Deschutes County Historic Landmarks Commission (HLC) received public testimony regarding the nomination at a meeting on October 2, 2017. The HLC chose to not complete review of the nomination at the meeting. Instead, each commissioner independently reviewed the

² The automatic continuation of review following the filing of an appeal is in conformance with the structure of the National Register law. If CLG recommendations were dispositive—or required a substantive appeal to the NPS—local governments could become the primary review body rather than the specialized state review board.

³ Of course, if SHPO failed to implement the plain language of the CLG statute (54 USC § 302504), that decision by the *state* would be subject to appeal to the NPS under 54 USC § 302104(d)(2).

⁴ "If the HPC and the chief elected official agree that the proposed nomination does not meet the criteria for listing in the National Register, the SHPO is not permitted to nominate the property to the National Register **unless an appeal is filed with the SHPO by any person. If an appeal is filed, the SHPO will forward the nomination and the CLG's recommendations to the Review Board.**" <https://www.historycolorado.org/sites/default/files/media/document/2017/1416.pdf> (emphasis added).

nomination, considered the testimony, and submitted comments to staff to compile and summarize."

A review of the video recording from the October 2 meeting⁵ confirms this description and further reveals that:

- No recommendation or other proposal was put before the board;
- No vote was taken by the board;
- The board viewed their comments as advisory only—there was no discussion or even awareness of 54 USC § 302504(c)(2); and
- The board members agreed to have staff compile their comments and forward on to SHPO without further review because they viewed their recommendations (as a whole or individually) as only advisory in nature.

Unfortunately, parts of the staff's compilation and completed review form did not fully capture the informal and unofficial approach adopted by the Deschutes County HLC. The documents are even misleading in that they appear to suggest that most of the participating board members were against the Nomination, which is factually incorrect. The chair of the Deschutes County HLC recused herself because of a conflict of interest; two voting members were against the Nomination (according to the staff summary); one voting member submitted comments to staff in favor of the Nomination; the fourth eligible member did not submit comments to staff, but wrote a letter directly to the SACHP in support. Thus, there was a split among the eligible commissioners.

This unofficial vote tallying, however, is purely academic. Under Oregon's public-meetings law, the staff's compilation of individual comments—without further review and vote at a public meeting—cannot constitute an official action by the Deschutes County HLC. ORS 192.630 et seq.; *see also* Deschutes County Code 2.28.060. Consequently, the document is not a "report of the commission" under 54 USC § 302504(c)(2).

⁵ Available at:

<https://deschutescountyor.iqm2.com/Citizens/SplitView.aspx?Mode=Video&MeetingID=1789&Format=Agenda>

Given the misleading nature of the compilation of comments, we request that SHPO remove the October 12, 2017, letter and review form from the public comments and instead work with Deschutes County to obtain the e-mails from each of the commissioners for individual review by the SACHP.

3. Public Records Request.

We are disappointed that COID and its attorney—who were both present at the Deschutes County HLC to observe the informal approach taken by the board—requested that SHPO adopt an incorrect view of the staff's compilation of comments. It is also disconcerting that SHPO failed to notice the obvious lack of official action under Oregon's public-meetings laws (in which it is well versed) prior to taking this unprecedented action. Simply reading the first paragraph of the compiled-comments letter should have prevented the application of 54 USC § 302504(c)(2). Should any doubt have remained, the video recording was readily available online.

Further, it is unclear why SHPO immediately removed the Nomination from the SACHP's meeting agenda and SHPO's website without offering the preparer and proponents a chance to respond to COID's interpretation of law—or file an appeal. To assist the public's understanding, we ask that—in addition to restarting the Nomination's review—SHPO also explain the scope and nature of its inquiry into the nature of the local meeting, its relevant internal and external communications about halting the Nomination, and the legal analysis relied on that led to its decision.

To that end, in accordance with ORS 192.410 et seq., this letter also serves as a request to SHPO for all public records that are communications (of any kind or format) regarding the Nomination. This request includes but is not limited to SHPO's discussions with COID representatives. SHPO's obligations in response to this request are set forth in ORS 192.440. Given the public interest in these records following SHPO's unprecedented action, we ask that you provide access and notice of availability to all interested parties, at no cost.

4. Conclusion.

It is clear that the compilation of comments does not constitute an official action of the Deschutes County HLC—neither by intent, nor under Oregon's public-meetings law. Even if it did, this appeal letter is sufficient to restart the standard review process. Accordingly, we request that the SACHP's review of the Nomination be reinstated to the agenda for the February 16, 2018, meeting. A decision to continue with the unlawful and unfair treatment of the Nomination would be without basis in law or

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fact, opening SHPO to judicial scrutiny (as well as the risk of an adverse judgment for payment of a petitioner's fees). See ORS 183.497(1)(b).

Please let me know if you have any questions regarding the matter addressed above.

Very truly yours,

A handwritten signature in blue ink, appearing to read "SGL", is centered on the page.

Steven G. Liday

cc (via e-mail):

Ms. Aleta Warren
Ms. Carrie Richter
Ms. Pat Kliever
Mr. Paul Loether

January 19, 2018

VIA EMAIL (Chrissy.Curran@oregon.gov and Ian.Johnson@oregon.gov)

Christine Curran, Deputy State Historic Preservation Officer
Ian Johnson, Associate Deputy State Historic Preservation Officer
State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, Oregon 97301-1266

Re: Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment)

Dear Ms. Curren and Mr. Johnson:

This firm represents Patricia Kliewer, the preparer of a nomination to designate a segment of the Central Oregon Canal as a National Register Historic District. This nomination was scheduled for consideration by the State Advisory Committee on Historic Preservation (SACHP) at its meeting in February, 2018. On January 9, 2018, Ms. Kliewer received notice that the Oregon State Historic Preservation Office (SHPO) would take no further action on this nomination. This determination was incorrect and for the reasons set forth below, SHPO should rescind its decision dated January 8, 2018, and place this matter back before the SACHP for review.

Restated here for parties' convenience, the federal law at issue in this matter provides, in relevant part:

"If both the [local historic preservation] commission and the chief elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action..." 54 USC 302504(c)(2).

As the January 8 SHPO letter explains, consistent with the previous sections of this same law, a determination by SHPO to take no further action is to be triggered by a report prepared by the "local historic preservation commission." More specifically, 54 USC 302504(b) provides, again, in relevant part:

"The local historic preservation commission, after reasonable opportunity for public comments, shall *prepare a report* as to whether the property, *in the Commission's opinion*, meets the criteria of the National Register." (emphasis added)

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SHPO determined that this threshold was satisfied as a result of “having reviewed the letters provided.” The letter at issue is a letter dated October 12, 2017 allegedly from the Deschutes County Historic Landmarks Commission (HLC or Commission). However, a closer examination of the letter makes clear that SHPO has failed to properly apply these requirements because it was neither prepared by the HLC, nor does it reflect the Commission’s opinion.

The HLC held a public meeting to consider the nomination on October 2, 2017. In written comments prepared shortly after this meeting and attached to this letter, Landmark Commissioner Bill Olsen summarized the DHLC next steps as follows:

“Regarding this referenced property nomination to the National Register of Historic Places, the action of the Board, 10/2/2017 public meeting, *was not to take action in support or against this request*, but rather to submit our concerns to you and you would then collectively submit our remarks to the State Advisory Committee on Historic Preservation (SACHP) at its meeting.” (Emphasis added)

Although the quality of the audio recording taken from the October 2, 2017 HLC is not good, the HLC deliberation supports Commissioner Olsen’s recollection in a number of respects: (1) the HLC decided not to take any action in response to the nomination at that meeting; (2) the individual commissioners were to draft written comments expressing their individual position, because they had not reviewed the nomination up to that point; (3) these individual comments were to be submitted to staff, who would “capture the comments” in a single letter and (4) staff would return the document to the HLC to confirm that it accurately summarized the comments. See hearing video at 1.24.28 through 1.26 available at: <http://deschutescountyor.iqm2.com/Citizens/SplitView.aspx?Mode=Video&MeetingID=1789&AgendaID=1712&FileFormat=pdf&Format=Agenda&MediaFileFormat=mpeg4>

There were a number of problems with this approach. Not only did the County fail to follow the steps identified by the HLC at its hearing, the resulting October 12 letter does not qualify as a “report” prepared by or based on the “Commission’s opinion” as required by federal law to trigger SHPO to take no further action on the nomination. The video and Commissioner Olsen comments make clear that: (1) the HLC took no position at the hearing; (2) the HLC never intended for the staff summary to serve as the HLC’s opinion; (3) the summary did not reflect the comments received and (4) although contrary to public meeting law and the instructions of the HLC, the tallying of votes, based on the comments, consistent with DCC requirement and state law, would not create a sufficient number of votes to take a position, in the first instance. Each of these defects are explained in further detail below.

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Under Oregon Public Meeting law, all meetings of the HLC are to be open to the public.¹ Further, the law provides:

(2) A quorum of a governing body may not meet in private for the purpose of deciding on or deliberating toward a decision on any matter except as otherwise provided by ORS 192.610 to 192.690. ORS 197.630

There is no exception to the public meetings law that would apply to excuse the HLC from taking any action occurring outside of a public meeting. The October 12 letter from the county, again, the only evidence relied on by SHPO, explains that a determination to not recommend listing was based on the following:

“Regarding a recommendation, 1 commissioner supports listing the district on the National Register and 3 commissioners (including one ex-offic[i]o member) do not. Based on these opinions, the Evaluation Sheet indicates the commission does not recommend listing the nomination segment of the Central Oregon Canal as [a] historic district on the National Register of Historic Places.”

Oregon public meetings law and federal regulation prohibit decision-making occurring outside of the public forum. Where a local government makes a decision in violation of public meetings law, the decision is “voidable” and must be corrected before it can be given effect. 192.680 (1)

¹ 36 CFR 61.6(e)(4) provides that Certified Local Governments must:

“Provide for adequate public participation in the local historic preservation program as a whole. The SHPO must provide each CLG with appropriate guidance on mechanisms to ensure adequate public participation in the local historic preservation program including the process for evaluating properties for nomination to the National Register of Historic Places.”

The Oregon State Historic Preservation Office Certified Local Government Program, Local Government Amended Procedures, Amended 2001 provides:

“Landmarks commission meetings of participating local governments must be held in conformance with State of Oregon public meetings statutes. A summary of public testimony and landmarks commission discussion about all nominations to the National Register of Historic Places generated from within the local government's jurisdiction must be forwarded to the SHPO when the nomination is forwarded.”

The National Park Service Manual for State Historic Review Boards, Part 6, encourages all nomination decision-making to occur in an open meeting where it states:

“In reviewing and commenting on nominations, board members should be particularly aware of strong citizen interest in nominations. Nominations are frequently prepared by citizens who may attend a public board meeting; their interest in preservation should be acknowledged and appropriately stimulated.”

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SHPO cannot conclude that a tally of opinions, based on comments that are not contained in the record, accomplished in private in violation of public meetings law, is somehow determinative of the HLC's opinion. There is no suggestion that the HLC reviewed the conclusions set forth in the October 12 letter and voted to agree that it accurately represented their collective position.

The County letter did not include copies of the individually-prepared commissioner comments as instructed by the HLC at its meeting. Commissioner Olsen's recollection from the meeting suggests that HLC decided not to take a formal position. 54 USC 302504(c)(1) provides that where no recommendation from a historic preservation commission is received, SHPO is to proceed with the nomination.

Further, comparing the October 12 letter with the Olsen comments that were supposed to form the basis for the record, there is no indication that the County letter and review form accurately reflected the diversity of positive and negative opinions of the individuals who submitted them. The October 12 letter is little more than an anonymous comment and does not reflect any decision made by the HLC, as a whole.

Although no tallying of positions was permitted without a subsequent blessing by the HLC in a public meeting, the vote tally was substantively flawed. Deschutes County Code (DCC) 2.28.040.A provides that the HLC shall consist of five voting members. As pointed out above, it would take three of these members or a quorum of members to take any action, consistent with public meeting law. The three commissioners identified in the letter as opposing the nomination included one ex-officio member. DCC 2.28.040.D.2 provides that "ex-officio members" are to "act in a non-voting advisory capacity" and "shall not be entitled to vote." As a non-voting member, interpreting the ex-officio member's comments to count as a vote in opposition was inconsistent with the County code. This ex-officio's "vote" should not be counted and as a result, the HLC lacked sufficient votes (or a quorum) necessary to take any action on the application.

The County's failure in the letter to clearly report the formal decision of "no position" taken by the HLC in the public meeting, the failure to convey the diversity of and nature of the personal comments sent to the staff and SHPO as just that, the personal comments of one or two commissioners, that does not represent a quorum, entirely undermines SHPO's conclusion that the HLC did not support the nomination.

In summary, the October 12, 2017 letter does not accurately state the opinion of the voting members of the HLC. There is no question that it was not prepared by the HLC, nor does it reflect an opinion that was reviewed or voted upon by a majority of the voting members of the HLC. It does not comply with the requirements of 54 USC 302504(b) and (c)(2). For these reasons, SHPO should rescind its January 8, 2018 determination and either continue to process

Christine Curran and Ian Johnson
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the nomination or request that the HLC provide a written report of its opinion of the proposal, which complies with public meetings requirements, as required by law.

Thank you for your consideration of this request.

Very truly yours,



Carrie A. Richter

cc: Mr. Paul Loether via email (paul_loether@nps.gov)
Ms. Patricia Kliewer via email

CAR:kms

Enclosures:

January 8, 2018 letter from SHPO including letters from Deschutes County
October 3, 2017 comments from Landmark Commissioner Bill Olsen
October 30, 2017 comments from Landmark Commissioner Bill Olsen



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



January 8, 2018

Matt Singer
Holland and Knight LLP
111 S.W. Fifth Avenue
2300 U.S. Bancorp Tower
Portland, OR 97204

RE: Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment)

Mr. Singer:

Thank you for your January 2nd letter regarding the nomination of the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment) to the National Register of Historic Places. Your letter points out, that prior to the review of the nomination on October 20, 2017 by the State Advisory Committee on Historic Preservation (SACHP), both the chief local official and the Certified Local Government (through its preservation commission) recommended against listing of the segment in the National Register, thus triggering a provision of the National Historic Preservation Act (NHPA) that should have compelled the State Historic Preservation Office (SHPO) to take no further action on the nomination.

Our office reviewed the letters provided by the chief local official, in this case, the Deschutes County Board of Commissioners (letter dated October 17, 2017) and the Certified Local Government, in this case, the Deschutes County Historic Landmarks Commission (letter dated October 12, 2017). We have also examined the provisions of the National Historic Preservation Act (54 USC 302504) that provides in part:

“If both the [local historic preservation] commission and the chief elected official recommend that a property not be nominated to the National Register, the State Historic Preservation Officer shall take no further action[.]” 54 USC 302504

Although neither of these letters cite to the federal law at 54 USC 302504, we agree with your assessment that based on the substance and language of those two letters, the threshold for applying the provisions of 54 USC 302504 has been met and that the NHPA prohibits the SHPO from taking further action on this nomination.

Therefore, in accordance with federal law, the Oregon SHPO is halting the nomination process and removing the Central Oregon Canal Historic District (Ward Road-to-Gosney Road Segment) nomination from consideration at the February 2018 SACHP meeting, where it was scheduled to receive a second hearing after being “tabled” for major revisions at the October 2017 meeting.

The objections of the Deschutes County Board of Commissioners and Deschutes County Landmarks Commission may be appealed to the Oregon SHPO by submitting a written statement within 30 calendar days of the date of this letter. Appeals are subject to the provisions of the National Historic Preservation Act, 54 USC 302104 and Chapter 36 of the Federal Code of Regulations, Part 60.



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It is important to the Oregon SHPO to administer the National Register of Historic Places with as much consistency as possible, and we are grateful when we are alerted to nuances in this complex federal program. We have asked the National Park Service to provide additional clarification around the application of 54 USC 302504, and will incorporate what we learn into our administrative process moving forward.

Sincerely,



Christine Curran
Deputy State Historic Preservation Officer

cc:

(By email)

Craig Horrell, Director, Central Oregon Irrigation District
Deschutes County Board of Commissioners, c/o Peter Gutowsky
Deschutes County Landmarks Commission, c/o Matt Martin
Patricia Kliewer, nomination preparer

(By post mail)

Property owners along the nominated segment of the Central Oregon Canal Historic District

Attachments:

Deschutes County Board of Commissioners letter dated October 17, 2017
Deschutes County Historic Landmarks Commission letter dated October 12, 2017



Board of County Commissioners

PO Box 6005, Bend, OR 97708-6005
TEL (541) 388-6570 • FAX (541) 385-3202

www.deschutes.org

Tammy Baney
Anthony DeBone
Philip Henderson

October 17, 2017

Jason Allen
Oregon State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

Dear Mr. Allen:

Thank you for the opportunity to comment on the nomination of the Ward Road to Gosney Road segment of the Central Oregon Canal as a historic district on the National Register of Historic Places.

The Board of County Commissioners (Board) has reviewed and considered the nomination, comments from property owners, the Central Oregon Irrigation District (COID), and stakeholder organizations, and toured the canal. We recognize the historic value of irrigation canal systems in the settlement of Central Oregon, as well as the scenic, wildlife habitat, and quality of life benefits canals provide to our residents and communities.

However, we recommend the proposed Ward-to-Gosney Road segment of the Central Oregon Canal not be listed on the National Register of Historic Places at this time for the following reasons:

- A majority of our Deschutes County Historic Landmarks Commissioners find this segment of the Central Oregon Canal lacks historic integrity and significance sufficient to warrant the listing. They detailed these and other concerns in a letter to your office that was sent on Oct. 12.
- Previously, COID hired experts to conduct a historic study of the district's entire irrigation canal system, including the subject segment, as part of a Multiple Property Document (MPD) process. Based on the MPD, COID nominated two canal segments for listing on the National Register of Historic Places, but did not nominate this segment of the canal.
- Irrigation districts manage canals as water delivery systems to serve their patrons, conserve water, and increase instream flows in the Deschutes River. Historic designations may impose regulatory burdens, barriers, and costs in performing these essential functions, which provide public and private benefits. In this case, with so much of the irrigation system downstream in terms of the number of acres and patrons served, a listing would substantially degrade the District's ability to serve their needs if there was a break or leak in the canal that needed to be fixed.

Thank you for your consideration.


Tammy Baney, Chair


Anthony DeBone, Vice Chair


Philip G. Henderson, Commissioner



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
(541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

October 12, 2017

Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

To Whom It May Concern:

Thank you for the opportunity to comment on the nomination of a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places. The Deschutes County Historic Landmarks Commission (HLC) received public testimony regarding the nomination at a meeting on October 2, 2017. The HLC chose to not complete review of the nomination at the meeting. Instead, each commissioner independently reviewed the nomination, considered the testimony, and submitted comments to staff to compile and summarize.

First, it is important to emphasize that the HLC recognizes the historic importance and significant role irrigation canal systems have had in the region. These water delivery systems most certainly contributed to the overall development of Deschutes County since the early 20th century by increasing the viability of agricultural uses that enabled homestead settlement and resulted in rural and urban development present today. With that said, the HLC recognizes that review and consideration of a nomination for the National Register of Historic Places is based on the merits of the application and review criteria.

Enclosed is the completed National Register Nomination Evaluation Sheet. The Evaluation Sheet indicated "Concerns" if any one of the Commissioners specifically expressed concerns regarding a category. Regarding a recommendation, 1 commissioner supports listing the district on the National Register and 3 commissioners (including one ex-officio member) do not. Based on these opinions, the Evaluation Sheet indicates the commission does not recommend listing the nomination segment of the Central Oregon Canal as historic district on the National Register of Historic Places.

For additional context and detail, the following summarizes Commissioner comments on each evaluation category.

INTEGRITY:

- Period of Significance – the property has been altered since its original design in early 1905. Some of the original design features can still be identified, but the irrigation district has altered the original design of the canal through years of maintenance. This raises a critical question of whether the alterations have significantly altered the original character or not. I do not have photos to indicate to support a decision on the impact of the major alterations nor access to any revised dates for the period of significance.
- From the research stated in the nomination, there appears to be significant revisions and improvements done to the canal (particularly beginning in the 1960s) in order for its continued function as a water utility. Few features, despite what the writer is considering 'historic' (headgates, flumes, piers, catwalks, etc.) don't particularly stand out in significance for construction practices or unique features that are already found elsewhere as better examples in the irrigation canal systems. The proposer claims that this segment is the most 'unmodified' portion of the Central Oregon Canal remaining in existence, but the constant upgrades and repairs of the canal indicate that few original (or historic) components still exist.
- Too many alterations and new materials have been added to this canal to meet integrity criteria.
- This portion of the canal, I believe, is historic with regard to construction, materials, design and location.

DESCRIPTIONS:

- In the original application, several elements (examples include Bear Creek Ranch Bridge and Burt Chute) are referenced that were built outside the period of significance for this nomination. Therefore, they cannot be classified as contributing to the district. Without access to the revised application and supporting documents to see if these concerns have been met, I cannot make a recommendation to approve.
- The property is adequately described. There seems to be superfluous information about other parts of the canal system not under consideration for nomination, making the Ward to Gosney segment difficult to interpret. It is also difficult to determine what the proposed 'boundary' (north and south) edges are, even with the accompanying map sources.
- In reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified.

SIGNIFICANCE AND CONTEXT:

- Criterion A - The canal does tell an important part of Central Oregon and Oregon's history. The application clearly presents evidence to support this criteria. The question is whether this is the only section that tells that important story or not.
- Criterion D – The remaining elements for the original canal may tell an important part of our history in Central Oregon. Again, not sure if this same information is available in another section of the canal.
- Although the miles of irrigation canals built throughout Central Oregon have, in small part, contributed to the overall development of the area, the nomination fails to make direct connection to events in the early history of the Deschutes Project with respect to this particular segment under consideration. With Criterion A "requiring events that have

made a *significant* contribution to the broad patterns of our history," this canal does not appear to match much to that criterion.

- One needs to merely reference the above books and memories [*The Oregon Desert*, *Desert Sage Memories*, *The River Flows as the Mountains Watch*, *The Pioneer Spirits of Bend*, and *It Is Too Cold To Snow*] written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923.

FACTS & SOURCES:

- The nomination presents the appropriate and best sources to support this nomination. As presented, the facts and sources seem accurate. The research is excellent.
- It is obvious that an exhaustive amount of research and a plethora of sources were used in creating this nomination. However, there doesn't seem to be strong connection to the area under consideration and those sources. Multiple references to the Carey Act, and a synopsis of local figures, and other various irrigation projects don't seem to be directly connected to this portion of the canal.
- The data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

SUPPORTING MATERIALS:

- The information needed to support this application is included with the nomination. We cannot review and address the revisions raised by SHPO since we do not review the revised application. Supporting material is presented through the application to help support the application.
- Despite a number of photos and maps, very few historic photos seem to be of this part of the canal being considered for nomination. Map sources don't accurately define the north and south boundaries of the proposed District either.

In closing, it is important to reiterate that the HLC recognizes the historic importance and role irrigation canal systems contributed to the overall development of area since the early 20th century. However, outstanding concerns and the lack of historic integrity and significance of this segment of canal prevent the majority of commissioners from supporting the nomination.

Sincerely,



Rachel Stemach,
Commissioner/Designee of Chair
Deschutes County Historic Landmarks Commission

Enclosure

NATIONAL REGISTER NOMINATION EVALUATION SHEET
Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOSNEY ROAD SEGMENT)**

ADDRESS:

BEND, DESCHUTES COUNTY

OK Concerns **INTEGRITY:** Major alterations or additions? New materials? Altered setting? Moved? etc.

OK Concerns **DESCRIPTION:** Is the property adequately described? Have contributing and non-contributing features been clearly identified?

OK Concerns **SIGNIFICANCE and CONTEXT:** Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance?

OK Concerns **FACTS AND SOURCES:** Are the appropriate and best sources used? Are key dates and facts accurate?

OK Concerns **SUPPORTING MATERIALS:** Adequate photos, maps, drawings, etc.?

The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register.

The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register.

Rebecca Staman 10/12/17
Signature of Commission Chair (or Designee) Date

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

DESCHUTES COUNTY HISTORIC LANDMARKS
Name of Local Historic Preservation Commission COMMISSION

October 3, 2017

TO: Matt Martin, Deschutes County Planning Dept (Landmarks Commission), staff

FROM: Bill Olsen, Deschutes County Landmarks commission Board Member

RE: National Register of Historic Places (Central Oregon Canal Historic District Ward Road –Gosney Road)

Regarding this referenced property nomination to the National Register of Historic Places, the action of the Board, 10/2/2017 public meeting, was not to take action in support or against this request, but rather to submit our concerns to you and you would then collectively submit our remarks to the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

Our Board was selected to work at the pleasure of the Deschutes County Board of Commissioners to make representations on behalf of said commissioners relating to DESCHUTES COUNTY LANDMARKS and HISTORIC SITE SELECTION. We are their eyes and ears and our charge is to "safeguard historic sites".

Yet, another Central Oregon Historic Site is being held hostage. A portion of the COID, an approximate 2.5 mile canal between Ward Road east to Gosney Road.

The fact remains, just like the Juniper Ridge canal portion, this particular site is a "historic site location" in nature. Constructed between 1906 and 1923 this irrigation canal structure allowed for homesteads and land development, which led to farming, crop production which supported animal production in the region, which in turn provided the force to drive commerce within developing Deschutes County. Some historians believe that Deschutes County was spun off from Crook County because of the creation of the COID and this unique and historic water delivery system. The Crook County area had the water with a natural water delivery system and the area which became Deschutes County had limited water and no delivery system.

One needs to merely read the many historic accounts from our early settlers to understand and realize the importance of those many historic sites, and structures which makes Deschutes County what it is today: THE OREGON DESERT, DESERT SAGE MEMORIES, THE RIVER FLOWS AS THE MOUNTAINS WATCH, THE PIONEER SPIRITS OF BEND, AND IT IS TOO COLD TO SNOW to name just a few of local literature.

Therefore, for the Record: I vote "OK" on Integrity: this portion of the canal, I believe, is historic with regard to construction, materials, design and location

I vote "OK" on Description: in reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified

I vote "OK" on Significance: Again, one needs to merely reference the above books and memories written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923

I vote "OK" on Facts and Sources: the data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

As an appointed Board Member I support this nomination- Bill Olsen



October 30, 2017

Memo of Understanding

TO: Tracy Zeller, Advisory Committee on Historic Preservation

FROM: Bill Olsen, Deschutes County Landmarks Commission Board Member

RE: Central Oregon Canal Historic District (Ward Road to Gosey Road 2.5 mile section)

Thank you for your return call this date and for the record the attached is my "personal" written testimony supporting the nomination to the National Register of Historic Places.

I understand that no decision was made in this regard at your previous October 20th Commission meeting, that the record is still open for written testimony in the regard.

The attached document dated October 3, 2017 is my personal endorsement supporting said COID Historic Request and as explained, I thought it would be submitted to the Advisory Committee as a supporting document, although contrary to the Deschutes County Landmarks Board's action.

However, I found later that my personal analysis and endorsement was not shared with your committee. Therefore, with this Memo of Understanding here is my personal endorsement as a Board Member to the Deschutes County Landmarks Commission, dated October 3, 2017.

Bill Olsen

(541) 480-5458 (email: bobo2@bendbroadband.com)

A handwritten signature in black ink, appearing to be 'Bill Olsen', with a long horizontal stroke extending to the right.

Steven G. Liday
steven.liday@millernash.com
503.205.2362 direct line

April 13, 2018

VIA E-MAIL

Matt.Martin@deschutes.org (for Commission)
Peter.Gutowsky@deschutes.org
Nick.Lelack@deschutes.org
Zechariah.Heck@deschutes.org

Deschutes County Historic Landmarks Commission
c/o Mr. Matt Martin

Deschutes County Community Development Department
Mr. Peter Gutowsky
Mr. Nick Lelack
Mr. Zechariah Heck
117 N.W. Lafayette Avenue
Bend, Oregon 97703

Subject: April 16, 2018, meeting regarding review of Central Oregon Canal
Historic District nomination (Ward-Road-to-Gosney-Road Segment)
("Nomination")

Dear Commissioners and Messrs. Gutowski, Lelack, and Heck:

Miller Nash Graham & Dunn LLP represents Aleta Warren, a proponent of the subject Nomination. This is a response to incorrect legal assertions made by Deschutes County Community Development Department (DCCD) staff concerning the nature of the Historic Landmarks Commission's (HLC) April 16, 2018, meeting. Contrary to staff's assertion in two emails sent April 11, 2018, the HLC's review is by law a quasi-judicial hearing, subject to all of the statutory requirements in ORS 197.763 and 215.416. This conclusion is mandated by the State Historic Preservation Office's (SHPO) interpretation of federal law to provide local governments with veto power over nominations to the National Register. The meeting is also subject to similar procedural requirements in the Deschutes County for HLC activities.

Further, as set forth in the fact section below, it is evident from public records produced by the County that the County Commissioners and DCCD staff have

had extensive and ongoing ex parte contacts with Central Oregon Irrigation District (COID) concerning the Nomination. Due to these interactions, it does not appear that either the HLC or Board of Commissioners can operate as impartial tribunal in this matter.

Accordingly, we request that the County fully disclose the extent of these communications, withdraw its earlier recommendations concerning the Nomination, and decline to provide further review.

If the County decides to continue with its planned hearings, all ex parte communication must be disclosed—including oral and written information and direction provided to commissioners by staff based on their communications with COID. Those commissioners who had extensive interaction with COID, or are biased for other reasons, must recuse themselves. Further, the hearing must be conducted with the procedural safeguards mandated by Oregon law for quasi-judicial hearings, and by Deschutes County code for this type of hearing. This means that the HLC's review of the Nomination must be postponed to allow for proper notice and dissemination of mandatory information, such as the applicable criteria for the HLC's review.

1. Overview of purpose for these requests.

Contrary to assertions by COID, the concerns of Deschutes County citizens like Ms. Warren are not simply to protect a "water feature." In fact, the listing of the proposed historic district on the National Register will not necessarily preclude its destruction someday. Rather, the listing merely recognizes the canal's historic nature and allows for public involvement in subsequent decisions about how and which portions should be preserved. Ms. Warren and other concerned citizens care not only about the historic canal system—and the preservation of the segments with the highest integrity—but also the proper application of historic preservation laws in general. The purposes of the historic preservation system is defeated if public involvement is not encouraged, the proceedings are not transparent, and the review is not fair and unbiased. If these elements are missing, the special interests favoring destruction will always win out, and the public good of our shared history will be destroyed forever.

COID's improper lobbying in this quasi-judicial process and concealed coordination with SHPO, state officials, and the County to undermine the Nomination is not about conservation, or even development, but attempting to exclude public citizens and local bodies from being involved in the discussion of how the history of Central

Oregon's canal system should be preserved.¹ In 2014, COID, SHPO, and the Bureau of Reclamation (BOR) entered into an agreement—both substantively and procedurally in violation of the National Historic Preservation Act—which purports to allow COID to unilaterally select the segments of canals to be preserved. Not surprisingly, COID selected segments with questionable historic integrity, but that did not interfere with the municipality's plans to maximize hydroelectric facility revenue. COID nominated these segments to the National Register, which were quickly advanced by SHPO. COID failed to disclose in its application or other comments to the reviewing state and federal commissions that these segments were intended to fulfill the 2014 agreement with BOR—perhaps because BOR and COID had represented to a federal court that the agreement had no present legal effect in order to obtain a dismissal of a lawsuit on ripeness grounds.² Contrary to that position, COID has now explicitly stated that the 2014 agreement is controlling, and that SHPO's consideration of any other nominations of canal segments violates the agreement.³ COID has acknowledged that it will not be able to prevent the Nomination on the merits (Ex. 1 at 22), and has therefore pushed SHPO to stop the Nomination through local recommendations. (Ex. 3.)

To date, it appears from public records that some County planning staff and local officials were involved in COID and SHPO's effort to undermine the Nomination. Nevertheless, the County still has an opportunity to correct these errors by now disclosing and rejecting this improper, *ex parte* influence—thus demonstrating that it cares more about the integrity of its legal and public process than COID's goals of maximizing its hydroelectric revenue.

¹ Much of COID's recent lobbying, political, and marketing efforts are aimed solely at excluding public participation and review. These activities—far outside COID's narrow statutory authority for an irrigation district—include express efforts to ignore, change, and undermine required public review processes. It is unclear why a public municipal entity, run by public officials, would spend hundreds of thousands of dollars on legal, lobbying, and marketing professionals rather than just submitting to public review.

² Ms. Warren had filed the suit to obtain an order for COID to correct its NHPA violations after it refused to address the violations and allow for public involvement.

³ Exhibit 2, work session minutes and meeting materials (irrelevant documents were removed from the meeting packets, except the cover page for that issue); see Ex.2, at 50, letter from COID attorney Matt Singer to SHPO stating "SHPO's failure to live up to its end of the bargain in the MOA is extremely concerning, and may require legal action."

2. Factual background and evidence of improper contacts between the County and COID.

a. The County improperly worked with COID in reviewing and rejecting the Nomination—without ever disclosing these ex parte communications and providing the preparer and proponents an opportunity to respond.

In August 2017, the DCCD staff began preparing materials for the County's review of the Nomination.⁴ At the very outset, DCCD staff reached out to COID to involve them in the process. DCCD's associate planner was instructed to "reach out" to COID to solicit a comment on: "1. Do you [COID] have a position (in favor/opposed) regarding this nomination? 2. Are there plans to pipe the nominated segment of canal in the foreseeable future?" *Id.* The associate planner asked COID to provide the comments within a few weeks so that they would be available prior to the HLC meeting and County Commissioner work session. *Id.* COID sent a memo with its comments attacking the Nomination a week later, which was included in the materials packets for both the HLC and Board work session. (Ex. 2.)

In stark contrast, when Pat Kliever, the preparer of the Nomination reached out to the same DCCD associate planner to ask if she and other proponents could provide comment to the HLC, she received a much different response. As the associate planner explains in an email to the chair of the HLC; "I informed her that I will relay this information to the commission but it is ultimately the [sic] at the discretion of the commission whether or not to take comments." (Ex. 1 at 6.) He states that he "assumes that COID would also be interested in commenting. In light of this, I think it would be beneficial to talk and/or meet to discuss procedure/process in preparation for the meeting." *Id.* Subsequently within the same email chain, the DCCD associate planner explains that an "aspect of the meeting will also be to prepare Sharon assuming you intend on recusing yourself as previously discussed."⁵ *Id.* at 5.

The information concerning the Nomination distributed by the DCCD to the Board of Commissioners (and almost certainly the HLC) only included materials that were opposed to the Nomination. (Ex. 1 at 8-9.) The first packet to the board for the October 4, 2017, work session included SHPO's July 21, 2017, memo to the

⁴ See Exhibit 1, compilation of public records produced by Deschutes County, at page 1.

⁵ The chair of the HLC is an employee of the BOR and was involved in the 2014 agreement with COID.

Nomination's preparer identifying issues and suggesting revisions (even though those revisions had already been completed), and the COID memorandum prepared at the request of the DCCD (Ex. 1 at 9, Ex. 2 at 17-23), but did not include comments in favor of the Nomination—or the Nomination itself.⁶ Despite the memo from COID, the minutes show that two of the Commissioners expressed that they "would like to hear from COID." (Ex. 2 at 1.)

During the next work session on October 11, 2017, the Commissioners discussed the prior and upcoming site visits to the area within the proposed historic district. (Ex. 2 at 26.) It appears, that while the DCCD staff originally attempted to have both the Nomination preparer and COID District Manager be present (Ex. 1 at 10), only COID was ultimately involved. This conclusion is based on the email from Commissioner Henderson's assistant stating that "[h]e would really like to have Craig Horrell at the tour[.]" (*Id.* at 14), and the email between Mr. Horrell and DCCD staff arranging a time for Mr. Horrell to be available for the tour by Commissioner DeBone. *Id.* at 15-17.

Throughout the Board and HLC's consideration of the Nomination, County officials repeatedly expressed their concerns for COID interests, and looked to COID as the expert in the history of the canals, frequently providing updates and requesting further information. For instance, while scheduling Commissioner DeBone's tour with Mr. Horrell, DCCD staff stated to Mr. Horrell that:

"In addition, during the Board's work session this afternoon we briefly discussed COID's historic preservationist's findings/evaluation of this segment of the canal. We understand COID completed it's [sic] multiple property evaluation. Were the 2 segments in Redmond and in Crook County the best segments to be nominated for designation—and there were others—such as this, but not as "good" so they were not proposed, or were they they [sic] only segments that qualified for designation?

In other words, do we have conflicting historic preservation opinions of this section of the canal, are they consistent, or do we know?" *Id.* at 15.

Mr. Horrell responded moments later, stating "[y]es there are conflicting historic reports. Pat is "cherry picking" based on special interest." *Id.* at 16.

⁶ Based on the emails produced by Deschutes County, and the meeting materials, it appears that the Commissioners may have never received a copy of the Nomination.

Also, during the October 11, 2017, work session, the minutes state that: "Commissioner Henderson noted the tour of the canal was beneficial, and it was interesting to see the specific stretch of canal in question. *He would like to hear more from COID regarding their concerns, such as the maintenance issues they mentioned in their letter.*" (Ex. 2 at 26, emphasis added.) On October 12, 2017, COID's attorney sent DCCD staff an eight-page letter (addressed to SHPO) opposing the Nomination, with 47 pages of attached exhibits. DCCD staff replied by saying: "Thank you very much. Timely as we are also sending to the BOCC this afternoon our HLC's letter to SHPO. We will be sure to share it with our HLC as well." (Ex. 1 at 18.)

Those materials were in fact passed onto the Board of Commissioners for its October 16, 2017, work session, along with the HLC's recommendation against the Nomination, as prepared by the DCCD staff. (Ex. 2 at 43, et al.) This appears to be the last time the Board discussed the Nomination during a formal meeting/work session. In fact, it appears that the Board issued its recommendation against the Nomination—without ever holding a single open hearing or reviewing comments in support of the Nomination. The Board certainly did not disclose the extent of its ex parte contacts to Nomination proponents and allow them to rebut the information.

b. The County was also involved in COID and SHPO's subsequent plan to use the County recommendations to halt review of the Nomination.

The State Advisory Committee on Historic Preservation (SACHP) initially reviewed the Nomination during its meeting on October 20. In large part because SHPO had provided the SACHP with an earlier, unrevised draft, the SACHP tabled the Nomination until its February 2018 meeting. Nevertheless, Mr. Horrell realized that COID was not going to be able to oppose the Nomination on the merits. He explained to a DCCD staff member that while the Nomination had been tabled, "it appears [the SACHP] are ready to approve it with minor changes from pat. [sic] No input from district. *We are working on next steps.*" (Ex. 1 at 22, emphasis added.)

This was not the first time that COID was going to fail in trying prevent the recognition of the historic value of a Central Oregon canal. In 2014 and 2015, COID had vehemently opposed the nomination of the Pilot Butte Canal Historic District (Cooley Road—Yeoman Road Segment) at the local, state, and federal level, but the historic district was still added to the National Register because it met the criteria for historic

value and integrity.⁷ Perhaps realizing that it would not be able to oppose such nominations on the merits, COID attempted to change the statewide rules concerning preservation of historic resources. COID successfully lobbied the governor's office and SHPO to initiate a rulemaking process through the Department of Land Conservation Development (DLCD).⁸ The proposed amendments would have given COID veto power over historic designation and historic review of its easement property.⁹ Fortunately, these proposed rules failed, primarily because of strong public opposition.¹⁰

Thus, unable to challenge nominations to the National Register on the merits, COID began coordinating with SHPO and representatives of the governor's office in October 2017 to devise a new strategy.¹¹ As revealed in the enclosed public records, public official representatives from these public bodies (and an attorney from the Oregon Department of Justice (DOJ)) met on December 15, 2017, in Central Oregon, to discuss how to undermine the Nomination on grounds unrelated to the substantive review criteria. *Id.* It appears from emails following the meeting, that the public officials had devised a plan to terminate review of the Nomination using the Deschutes County recommendations and a federal law provision that had never been used in the State of Oregon and only a handful of times throughout the entire country. The coordinating officials believed that they could use 54 USC § 302504(c)(2) to allow SHPO

⁷ <https://www.nps.gov/nr/feature/places/15001052.htm>.

⁸ See Letter from Brian Sheets detailing COID's role as the impetus for the rule changes despite previous refusal by the DLCD or SHPO to confirm COID's involvement at all, available at: [http://www.oregon.gov/LCD/docs/meetings/lcdc/012517/Item_12_Supplemental_Packet_Materials%20\(5\).pdf](http://www.oregon.gov/LCD/docs/meetings/lcdc/012517/Item_12_Supplemental_Packet_Materials%20(5).pdf) (pages 19-100.)

⁹ The initial draft of amended rules, jointly proposed by SHPO and DLCD, would have altered the historic preservation rules for the entire state to define easement holders (such as COID) as an "owner" with unilateral power to prevent historic designation under Oregon law, and would have prohibited local jurisdictions from protecting National Register resources without an independent state/local designation—thus providing COID with veto power over historic designation and historic review of its easement property.

¹⁰ An overwhelming public response against the proposed rules resulted in the Rule Advisory Committee proposing—and the Land Conservation and Development Commission adopting—rules in direct opposition to the rule amendments sought by COID. Rather than prohibiting local protection, the new rules mandated local demolition review for National Register listings.

¹¹ Exhibit 3, public records from SHPO, at pages 1-9.

to entirely halt review of the Nomination based on the Deschutes County's recommendations.¹²

Later that month, COID appears to have involved Deschutes County officials in the plan because Peter Gutowsky of DCCD reached out to Ian Johnson of SHPO on December 28, 2017, requesting a meeting between DCCD and SHPO staff to discuss this previously-unused (at least in Oregon) statutory provision and how it may apply to the Nomination. (Ex. 3 at 15-16.) Mr. Johnson responded by saying that he "had planned to contact [Mr. Gutowski] and [his] staff about this very topic in the New Year[,] and invited Mr. Gutowski to propose dates for the meeting between staff. No further records were produced by Deschutes County in regard to this proposed meeting.

On January 2, 2018, COID's attorney Matt Singer dispatched a "demand" letter to SHPO and the DOJ concerning SHPO's failure to enforce 54 USC § 302504(c)(2) by not terminating review of the Nomination based on the Deschutes County recommendations.¹³ The letter stated that "COID does not wish to be in a dispute SHPO[,] but requested that SHPO terminate review based on its legal analysis of the statute. The letter omitted any mention of the earlier meeting and follow-up communications among COID and the recipients (as well as other public officials), which had coordinated this very attack on the Nomination. Rather, the letter ironically stated: "But in fairness to all who come before a state agency, we need a level playing field where all comers are bound by the same rules." *Id.* at 3.

On January 8, 2018, Christine Curran, Deputy State Historic Preservation Officer, "responded" to COID's letter by stating that based on the legal analysis provided by COID, SHPO was in agreement that it had erred and was immediately terminating review of the Nomination.¹⁴ The Nomination was instantly removed from SHPO's website and the agenda for the February 2018 meeting of the State Advisory Committee on Historic Preservation ("SACHP")—without providing notice or opportunity to respond to the Nomination's proponents, or even its author. This letter also omitted any reference to the prior communications on undermining the Nomination.

Upon discovering this unprecedented action by SHPO, law firms Miller Nash Graham & Dunn and Bateman Seidel dispatched letters to SHPO explaining that

¹² Ex. 3, at 10-17 (follow up emails re 54 USC § 302504).

¹³ Exhibit 4.

¹⁴ Exhibit 5.

its interpretation lacked legal basis for several reasons.¹⁵ First, the informal individual comments by members of the HLC could not constitute an official action under Oregon's open meeting laws and second, the statute only authorized SHPO to halt the review until any person appeals the local recommendations.¹⁶

Despite the clear error of its prior legal analysis, SHPO refused to concede that its termination action violated Oregon's open meeting laws and misinterpreted 54 USC § 302504(c)(2). Rather SHPO claimed that it had simply failed to recognize that the revisions to the Nomination should have been treated as a "new" nomination, subject to a new local review. The DOJ refused to respond to multiple inquiries as to whether it would withdraw its/SHPO's earlier interpretation of the federal statute. This posturing appears to be aimed at providing COID and SHPO with a "second bite of the apple" to terminate review of the Nomination purportedly under 54 USC 302504(c)(2)—but based on local decisions that meet Oregon's open meetings laws.

3. The HLC review of the nomination is a quasi-judicial hearing because the Deschutes County has the authority to terminate consideration of the historic district, according to SHPO's interpretation of 54 USC § 302504(c)(2).

Historically, the local recommendations under 54 USC § 302504(c)(2) are treated as advisory in regard to nominations to the National Register by private property owners. Because the proponent would simply object to the termination, the state historic preservation office (including in Oregon) has usually just forwarded the local government recommendations to that state's advisory body (in Oregon, the SACHP), which is the mandated process under 54 USC § 302504(c)(2) when an appeal is "filed" with the state.

SHPO has now, however, interpreted 54 USC § 302504(c)(2) to require not just the "filing" of an appeal, but also an affirmative ruling on the appeal by some

¹⁵ Exhibits 6 and 7.

¹⁶ Upon receipt of such an appeal, SHPO is required to restart the standard review procedures for the Nomination. This is why this particular provision is never discussed in published materials and is not the subject of any published court opinions (i.e., it effectively only halts nominations by the state agency initiated under 36 CFR § 60.6 or those abandoned by citizen proponents following local review). Thus, SHPO should have at least provided notice to the Nomination author and proponents of its intended action (with opportunity to object) prior to the drastic action of removing the Nomination from the SACHP agenda and active review.

unnamed body, based on unspecified grounds. This interpretation eliminates the SACHP's ultimate authority to review nominations under its own discretion, and provides the local government with veto power over nominations within their jurisdictions.

SHPO's novel interpretation and application of 54 USC § 302504(c)(2) causes these previously advisory decisions to now "land use decisions" subject to quasi-judicial review, with the procedural requirements outlined in ORS 197.763. Contrary to the DCCD staff's understanding, it is irrelevant that Deschutes County's decision is in the form of a "recommendation" to another body with ultimate authority. As with Planning Commission recommendations to the Board, quasi-judicial procedures are necessary to protect the public process from back room deals.

All that matters in determining that this is a quasi-judicial process is whether the local decision at the end of the process has a final effect on land (i.e., the second reviewing body does not engage in its own discretionary review, but simply applies the "recommendation" of the local government). *Cent. Eastside Indus. Council v. City of Portland*, 128 Or App 148, 152, 875 P2d 482, 483 (1994) (rejecting LUBA's conclusion that "anything that purports to be a recommendation from one unit of government to another cannot be a final land use decision under either the statutory or the significant impact test, if the subject of the recommendation is within the authority of the second body." (internal quotations omitted); *see also Heritage Enterprises v. City of Corvallis*, 300 Or 168, 708 P2d 601 (1985) (city council's decision that a proposed annexation complied with the comprehensive plan and applicable land use laws was a final land use decision, even though this "recommendation" was referred to the electorate for final approval); *compare Neighbors for Sensible Development, Inc. v. City of Sweet Home*, 39 Or LUBA 766, 772-73, 2001 WL 868326 (2001) ("A preliminary approval under SHMC 17.48.030(C) appears to yield a decision that is final and binding in certain respects on both the city and the applicant. * * * The challenged decision is a "final" land use decision."); and *Goose Hollow Foothills League Association v. City of Portland*, 21 Or LUBA 358, 359-60, 1992 WL 1357271 (1992) ("In adopting its land use decision under Oregon Laws 1991, chapter 3, Tri-Met was free to accept the city's recommendation in whole or in part, or reject the city's recommendation altogether. Such city recommendations are not final decisions subject to our review.").

There is no question that the termination of a National Register nomination is a final land use decision because the review decision is made under local and state land use goals and regulations, and directly impacts the future use and tax

treatment of the property at issue. See OAR 660-015-0000 (planning goals), Statewide Planning Goal 5; OAR 660-023-0200 (local review and designation of historic resources); Deschutes County Code (DCC), Chap. 2.28 (Historic Preservation and HLC); Comprehensive Plan, Section 2.11 (Cultural and Historic Resources Goal and Policies). Because the HLC is given primary authority to review the Nomination under the Deschutes County Code, and SHPO has interpreted federal law to allow local governments to unilaterally terminate review, the HLC's determination of eligibility is a quasi-judicial land use decision.

In a case directly on point, LUBA found that the termination of review of an application for historic designation by a city's historic review board was a final land use decision because it concerned "the application of OAR 660-023-0200(6), an administrative rule that implements Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and ORS 197.772." *McLoughlin Neighborhood Association v. City of Oregon City*, LUBA Nos. 2017-052/054, 2017 WL 4466918 (2017). LUBA stated that although a final decision on the merits of the application was not reached, "the HRB's apparent conclusion that the ORS 197.772(1) refusal to consent deprived it of jurisdiction to continue with its review of the application is a decision that concerns the application of the Goal 5 rule and the city's comprehensive plan and therefore is a land use decision." *Id*; see also *Lake Oswego Preservation Society v. City of Lake Oswego*, 69 Or LUBA 475, 480, 2014 WL 10247708 (2014) ("We agree with petitioners that the city's decision concerned the application of at least OAR 660-023-0200(6), and to that extent the decision concerned the application of Goal 5. For that additional reason, the city's January 7, 2014 decision is a 'land use decision' subject to LUBA's jurisdiction unless some statutory exclusion applies. Intervenor does not identify any statutory exclusion that applies."), affirmed on jurisdictional issue in *Lake Oswego Pres. Soc'y v. City of Lake Oswego*, 268 Or App 811, 816, 344 P3d 26, 29 (2015)¹⁷ (holding that historic designation and revocation involved interpretation of local regulations and state planning goals and thus was a land use decision).

The review of a nomination for a single historic district cannot legitimately be considered a "legislative" decision under *Strawberry Hill 4 Wheelers v. Benton Co. Bd. of Comm.*, 287 Or 591, 602-03, 601 P2d 769 (1979) and its LUBA opinion progeny. The local review of the Nomination is quasi-judicial because it will result in a

¹⁷, rev'd sub nom. on other grounds, *Lake Oswego Pres. Soc'y v. City of Lake Oswego Hanson*, 360 Or 115, 379 P3d 462 (2016).

determination by Deschutes County, the review is based on a discrete set of circumstances under preexisting criteria, and the action involves a relatively small number of interested parties. *See Leonard v. Union County*, 24 Or LUBA 362, 368 (1992); *Miner v. Clatsop County*, 46 Or LUBA 467, 476 (2004); *see also Fasano v. Bd. of Cty. Comm'rs of Washington Cty.*, 264 Or 574, 580-81, 507 P2d 23, 26 (1973)¹⁸ ("Ordinances laying down general policies without regard to a specific piece of property are usually an exercise of legislative authority[.]").

Accordingly, the procedural requirements for quasi-judicial land use reviews apply to the HLC's review of the Nomination. (Further, SHPO's announced interpretation and application 54 USC § 302504(c)(2) means that all future local reviews of National Register nominations will be subject to this formal type of review.)

4. Even if quasi-judicial review was not required for this decision under state law, Deschutes County Code mandates notice and hearing safeguards.

Deschutes County Code states that the HLC "shall have authority to coordinate historical preservation programs of the county, state and federal governments, as they relate to property within the County." DCC 2.28.040(M). To that end, the HLC is designated to "serve as a hearings body for matters concerning historic and cultural resources within the County and the City of Sisters." DCC 2.28.040(I). "Historic and cultural resources" is defined under the County Code to include listings for the National Register (OAR 2.28.020), and HLC's jurisdiction explicitly includes review of such resources (DCC 2.28.030), and compliance with state preservation laws (DCC 2.28.140).

The HLC is required to conduct all of its activities in open meetings, pursuant to the quasi-judicial requirements in "DCC 22.24.050 through 22.24.160." These requirements supplement the open meeting law of the state. ORS 192.630 *et seq.* Further, because the County code provides for a quasi-judicial process for HLC meetings, the HLC must also observe the requirements in ORS 197.763. *See Smullin v. Jackson County*, 8 Or LUBA 139, 1983 WL 400572 (1983) ("requirements placed upon Jackson County lead us to conclude the process in which it was involved when dealing with petitioners' property also required that it provide petitioners' procedural protections guaranteed under the quasi-judicial process."); *see also Neelund v. Josephine County*, 52 Or LUBA 683, 691, 2006 WL 3258397 (2006) (refusing to allow

¹⁸ *disapproved of on other grounds by Neuberger v. City of Portland*, 288 Or 585, 607 P2d 722 (1980).

modification by staff to decision by hearing officer because county code provided for quasi-judicial process, which thus could not be considered ministerial decision under state law), and *Central Eastside Industrial Council v. City of Portland*, LUBA No. 2016-027, 2016 WL 4585291 (2016) (LUBA looked to the City's process of processing application under City code in determining whether it qualified as quasi-judicial hearing under state law).

5. Due to the extreme bias in favor of COID, the County should acknowledge its extensive ex parte contacts with COID, withdraw its prior recommendations, and decline to further review the Nomination due to its lack impartiality.

Both state statute and local code required the HLC and Board of County Commissioners to observe procedural rules that are meant to ensure fairness in public hearings and process. But even outside of these statutory requirements, Oregon courts have repeatedly stated that "parties to a quasi-judicial land-use hearing are entitled to a tribunal which is impartial in the matter." *Columbia Riverkeeper v. Clatsop Cty.*, 267 Or App 578, 595, 341 P3d 790, 800 (2014) (internal citations omitted). "Impartiality can be destroyed in several ways, including acts of self-dealing, bias, and pre-hearing or ex parte contacts[.]" as well as "prejudgment." *Id.*

It is clear from the public records produced by the County and SHPO, that the County violated state law and local code by failing to observe procedural safeguard, and also failed to provide the Nomination preparer and proponents with even a modicum of fairness in the review of the Nomination. In addition to all of the other improper activities set forth above, the public records reveal that DCCD staff, the Board, and the HLC failed to review the Nomination under applicable historic criteria mandated by federal and state law—instead focusing on COID's efforts to maximize its hydroelectric revenue.¹⁹

It is highly unlikely that the County officials can undo their prejudice in regard to the Nomination. Accordingly, the County should acknowledge its bias caused

¹⁹ State law and County code provide for a separate hearing to review the proposed destruction of a historic feature. The integrity of historic (or other resource) preservation laws are entirely compromised—actually irrational—if the government conflates the concepts of designation and protection. A government may choose to destroy or allow the destruction of a resource in favor of development or another resource, but it should make that decision on an informed basis, not by refusing to admit that a valuable resource is in fact just that.

by prevalent ex parte interactions, withdraw its earlier recommendations, and decline to provide further review of the Nomination due to its lack of impartiality.

6. If the County insists on further review, it must observe the formalities in ORS 197.763 and in the Deschutes County Code.

ORS 197.763 applies to the conduct of all quasi-judicial land use hearings. Specific notice is required at least 20 days before the hearing, and must be sent to all land owners within 250 feet of the property at issue. ORS 197.763(2)-(3). The statute requires that any staff report used at the hearing shall be made available at least seven days prior to the hearing. ORS 197.763(4)(b). Under this statute, the decision in a quasi-judicial matter must be based on only the evidence in the record, either presented at the hearing, or made available to all members of the public. Similar and supplementary requirements are mandated by the Deschutes County Code. DCC 22.24.120.

Further, under state law, the hearing body members are required to disclose all ex parte contacts concerning the issue, and allow interested parties to rebut the substance of those communications. ORS 215.422. The same is required by Deschutes County Code for all hearings conducted by the HLC. Section 22.24.100 states:

"Prior to making a decision, the Hearings Body or any member thereof shall not communicate directly or indirectly with any party or his representative in connection with any issue involved in a pending hearing except upon notice and opportunity for all parties to participate. Should such communication—whether written or oral—occur, the Hearings Body member shall:

"A. Publicly announce for the record the substance of such communication; and

"B. Announce the parties' right to rebut the substance of the ex parte communication during the hearing. Communication between County staff and the Hearings Body shall not be considered to be an ex parte contact."

Similarly, under Section 22.24.105, all hearing body members must disclose personal knowledge of information outside the evidentiary record that is relevant to the matter, and allow all parties to provide a rebut such information on the

record. Following these disclosures, a party is entitled to request recusal of biased members. DCC 22.24.110. Given the breadth and depth of ex parte contacts at issue here, and the demonstrated bias of officials involved, the most prudent course of action for the County is to disentangle itself from the nomination process and allow the usual state and federal actors to review the Nomination in the usual course.

7. Conclusion.

It is clear that Deschutes County has not taken the requisite actions prior to the quasi-judicial hearing concerning review of the HLC's review of the Nomination. At a minimum, the meeting must be rescheduled so that the County can first evaluate whether it should recuse itself entirely from the review of the Nomination. If it decides to proceed with further review, it must observe the procedural safeguards set forth in statute and County code, disclose all ex parte contacts with COID, and attempt to explain how it will be an unbiased judge of the Nomination.

We are not entirely unsympathetic of the position that COID forced the County into. At the time of the October recommendations, SHPO had instructed County officials that they were entirely advisory. Further, it is understandable why County officials would look to COID for historic information on the canal system—especially when the financial records from COID and the Deschutes Basin Board of Control show that COID has spent hundreds of thousands of dollars in recent years on marketing, lobbying, and legal professionals attempting to convince the public that it is primarily interested in water conservation (a theory rejected by LUBA for an earlier proposed piping project), and is a responsible steward of historic resources.

Although not malicious, we ask the County to examine its extensive contact and coordination with COID in regard to the Nomination, and honestly consider whether the process appears to have been fair to the preparer and proponents, and whether it can really provide a fair hearing going forward.

Deschutes County Historic Landmarks Commission
Deschutes County Community Development Department
April 13, 2018
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We appreciate your valuable time in reviewing these issues. If you have any questions concerning these matters, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in blue ink, appearing to read "S. Liday", is centered on the page.

Steven G. Liday

cc (via e-mail):

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List of Exhibits

- Exhibit 1. Deschutes County public records
- Exhibit 2. Deschutes County Board of Commissioners meeting minutes and materials
- Exhibit 3. SHPO public records
- Exhibit 4. January 2, 2018, letter from COID attorney Matt Singer to SHPO requesting termination of nomination review
- Exhibit 5. January 8, 2018, letter from Christine Curran of SHPO to Matt Singer terminating nomination review
- Exhibit 6. January 23, 2018, letter from Steven Liday (attorney for Aleta Warren) to Christine Curran appealing termination of nomination review
- Exhibit 7. January 19, 2018, letter from Carrie Richter (attorney for Patricia Kliewer) to Christine Curran and Ian Johnson re continuing nomination review

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April 13, 2018

VIA E-MAIL

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Deschutes County Historic Landmarks Commission
c/o Mr. Matt Martin

Deschutes County Community Development Department
Mr. Peter Gutowsky
Mr. Nick Lelack
Mr. Zechariah Heck
117 N.W. Lafayette Avenue
Bend, Oregon 97703

Subject: April 16, 2018, meeting regarding review of Central Oregon Canal
Historic District nomination (Ward-Road-to-Gosney-Road Segment)
("Nomination")

Dear Commissioners and Messrs. Gutowski, Lelack, and Heck:

Miller Nash Graham & Dunn LLP represents Aleta Warren, a proponent of the subject Nomination. This is a response to incorrect legal assertions made by Deschutes County Community Development Department (DCCD) staff concerning the nature of the Historic Landmarks Commission's (HLC) April 16, 2018, meeting. Contrary to staff's assertion in two emails sent April 11, 2018, the HLC's review is by law a quasi-judicial hearing, subject to all of the statutory requirements in ORS 197.763 and 215.416. This conclusion is mandated by the State Historic Preservation Office's (SHPO) interpretation of federal law to provide local governments with veto power over nominations to the National Register. The meeting is also subject to similar procedural requirements in the Deschutes County for HLC activities.

Further, as set forth in the fact section below, it is evident from public records produced by the County that the County Commissioners and DCCD staff have

had extensive and ongoing ex parte contacts with Central Oregon Irrigation District (COID) concerning the Nomination. Due to these interactions, it does not appear that either the HLC or Board of Commissioners can operate as impartial tribunal in this matter.

Accordingly, we request that the County fully disclose the extent of these communications, withdraw its earlier recommendations concerning the Nomination, and decline to provide further review.

If the County decides to continue with its planned hearings, all ex parte communication must be disclosed—including oral and written information and direction provided to commissioners by staff based on their communications with COID. Those commissioners who had extensive interaction with COID, or are biased for other reasons, must recuse themselves. Further, the hearing must be conducted with the procedural safeguards mandated by Oregon law for quasi-judicial hearings, and by Deschutes County code for this type of hearing. This means that the HLC's review of the Nomination must be postponed to allow for proper notice and dissemination of mandatory information, such as the applicable criteria for the HLC's review.

1. Overview of purpose for these requests.

Contrary to assertions by COID, the concerns of Deschutes County citizens like Ms. Warren are not simply to protect a "water feature." In fact, the listing of the proposed historic district on the National Register will not necessarily preclude its destruction someday. Rather, the listing merely recognizes the canal's historic nature and allows for public involvement in subsequent decisions about how and which portions should be preserved. Ms. Warren and other concerned citizens care not only about the historic canal system—and the preservation of the segments with the highest integrity—but also the proper application of historic preservation laws in general. The purposes of the historic preservation system is defeated if public involvement is not encouraged, the proceedings are not transparent, and the review is not fair and unbiased. If these elements are missing, the special interests favoring destruction will always win out, and the public good of our shared history will be destroyed forever.

COID's improper lobbying in this quasi-judicial process and concealed coordination with SHPO, state officials, and the County to undermine the Nomination is not about conservation, or even development, but attempting to exclude public citizens and local bodies from being involved in the discussion of how the history of Central

Oregon's canal system should be preserved.¹ In 2014, COID, SHPO, and the Bureau of Reclamation (BOR) entered into an agreement—both substantively and procedurally in violation of the National Historic Preservation Act—which purports to allow COID to unilaterally select the segments of canals to be preserved. Not surprisingly, COID selected segments with questionable historic integrity, but that did not interfere with the municipality's plans to maximize hydroelectric facility revenue. COID nominated these segments to the National Register, which were quickly advanced by SHPO. COID failed to disclose in its application or other comments to the reviewing state and federal commissions that these segments were intended to fulfill the 2014 agreement with BOR—perhaps because BOR and COID had represented to a federal court that the agreement had no present legal effect in order to obtain a dismissal of a lawsuit on ripeness grounds.² Contrary to that position, COID has now explicitly stated that the 2014 agreement is controlling, and that SHPO's consideration of any other nominations of canal segments violates the agreement.³ COID has acknowledged that it will not be able to prevent the Nomination on the merits (Ex. 1 at 22), and has therefore pushed SHPO to stop the Nomination through local recommendations. (Ex. 3.)

To date, it appears from public records that some County planning staff and local officials were involved in COID and SHPO's effort to undermine the Nomination. Nevertheless, the County still has an opportunity to correct these errors by now disclosing and rejecting this improper, *ex parte* influence—thus demonstrating that it cares more about the integrity of its legal and public process than COID's goals of maximizing its hydroelectric revenue.

¹ Much of COID's recent lobbying, political, and marketing efforts are aimed solely at excluding public participation and review. These activities—far outside COID's narrow statutory authority for an irrigation district—include express efforts to ignore, change, and undermine required public review processes. It is unclear why a public municipal entity, run by public officials, would spend hundreds of thousands of dollars on legal, lobbying, and marketing professionals rather than just submitting to public review.

² Ms. Warren had filed the suit to obtain an order for COID to correct its NHPA violations after it refused to address the violations and allow for public involvement.

³ Exhibit 2, work session minutes and meeting materials (irrelevant documents were removed from the meeting packets, except the cover page for that issue); see Ex.2, at 50, letter from COID attorney Matt Singer to SHPO stating "SHPO's failure to live up to its end of the bargain in the MOA is extremely concerning, and may require legal action."

2. Factual background and evidence of improper contacts between the County and COID.

a. The County improperly worked with COID in reviewing and rejecting the Nomination—without ever disclosing these ex parte communications and providing the preparer and proponents an opportunity to respond.

In August 2017, the DCCD staff began preparing materials for the County's review of the Nomination.⁴ At the very outset, DCCD staff reached out to COID to involve them in the process. DCCD's associate planner was instructed to "reach out" to COID to solicit a comment on: "1. Do you [COID] have a position (in favor/opposed) regarding this nomination? 2. Are there plans to pipe the nominated segment of canal in the foreseeable future?" *Id.* The associate planner asked COID to provide the comments within a few weeks so that they would be available prior to the HLC meeting and County Commissioner work session. *Id.* COID sent a memo with its comments attacking the Nomination a week later, which was included in the materials packets for both the HLC and Board work session. (Ex. 2.)

In stark contrast, when Pat Kliever, the preparer of the Nomination reached out to the same DCCD associate planner to ask if she and other proponents could provide comment to the HLC, she received a much different response. As the associate planner explains in an email to the chair of the HLC; "I informed her that I will relay this information to the commission but it is ultimately the [sic] at the discretion of the commission whether or not to take comments." (Ex. 1 at 6.) He states that he "assumes that COID would also be interested in commenting. In light of this, I think it would be beneficial to talk and/or meet to discuss procedure/process in preparation for the meeting." *Id.* Subsequently within the same email chain, the DCCD associate planner explains that an "aspect of the meeting will also be to prepare Sharon assuming you intend on recusing yourself as previously discussed."⁵ *Id.* at 5.

The information concerning the Nomination distributed by the DCCD to the Board of Commissioners (and almost certainly the HLC) only included materials that were opposed to the Nomination. (Ex. 1 at 8-9.) The first packet to the board for the October 4, 2017, work session included SHPO's July 21, 2017, memo to the

⁴ See Exhibit 1, compilation of public records produced by Deschutes County, at page 1.

⁵ The chair of the HLC is an employee of the BOR and was involved in the 2014 agreement with COID.

Nomination's preparer identifying issues and suggesting revisions (even though those revisions had already been completed), and the COID memorandum prepared at the request of the DCCD (Ex. 1 at 9, Ex. 2 at 17-23), but did not include comments in favor of the Nomination—or the Nomination itself.⁶ Despite the memo from COID, the minutes show that two of the Commissioners expressed that they "would like to hear from COID." (Ex. 2 at 1.)

During the next work session on October 11, 2017, the Commissioners discussed the prior and upcoming site visits to the area within the proposed historic district. (Ex. 2 at 26.) It appears, that while the DCCD staff originally attempted to have both the Nomination preparer and COID District Manager be present (Ex. 1 at 10), only COID was ultimately involved. This conclusion is based on the email from Commissioner Henderson's assistant stating that "[h]e would really like to have Craig Horrell at the tour[.]" (*Id.* at 14), and the email between Mr. Horrell and DCCD staff arranging a time for Mr. Horrell to be available for the tour by Commissioner DeBone. *Id.* at 15-17.

Throughout the Board and HLC's consideration of the Nomination, County officials repeatedly expressed their concerns for COID interests, and looked to COID as the expert in the history of the canals, frequently providing updates and requesting further information. For instance, while scheduling Commissioner DeBone's tour with Mr. Horrell, DCCD staff stated to Mr. Horrell that:

"In addition, during the Board's work session this afternoon we briefly discussed COID's historic preservationist's findings/evaluation of this segment of the canal. We understand COID completed it's [sic] multiple property evaluation. Were the 2 segments in Redmond and in Crook County the best segments to be nominated for designation—and there were others—such as this, but not as "good" so they were not proposed, or were they they [sic] only segments that qualified for designation?

In other words, do we have conflicting historic preservation opinions of this section of the canal, are they consistent, or do we know?" *Id.* at 15.

Mr. Horrell responded moments later, stating "[y]es there are conflicting historic reports. Pat is "cherry picking" based on special interest." *Id.* at 16.

⁶ Based on the emails produced by Deschutes County, and the meeting materials, it appears that the Commissioners may have never received a copy of the Nomination.

Also, during the October 11, 2017, work session, the minutes state that: "Commissioner Henderson noted the tour of the canal was beneficial, and it was interesting to see the specific stretch of canal in question. *He would like to hear more from COID regarding their concerns, such as the maintenance issues they mentioned in their letter.*" (Ex. 2 at 26, emphasis added.) On October 12, 2017, COID's attorney sent DCCD staff an eight-page letter (addressed to SHPO) opposing the Nomination, with 47 pages of attached exhibits. DCCD staff replied by saying: "Thank you very much. Timely as we are also sending to the BOCC this afternoon our HLC's letter to SHPO. We will be sure to share it with our HLC as well." (Ex. 1 at 18.)

Those materials were in fact passed onto the Board of Commissioners for its October 16, 2017, work session, along with the HLC's recommendation against the Nomination, as prepared by the DCCD staff. (Ex. 2 at 43, et al.) This appears to be the last time the Board discussed the Nomination during a formal meeting/work session. In fact, it appears that the Board issued its recommendation against the Nomination—without ever holding a single open hearing or reviewing comments in support of the Nomination. The Board certainly did not disclose the extent of its ex parte contacts to Nomination proponents and allow them to rebut the information.

b. The County was also involved in COID and SHPO's subsequent plan to use the County recommendations to halt review of the Nomination.

The State Advisory Committee on Historic Preservation (SACHP) initially reviewed the Nomination during its meeting on October 20. In large part because SHPO had provided the SACHP with an earlier, unrevised draft, the SACHP tabled the Nomination until its February 2018 meeting. Nevertheless, Mr. Horrell realized that COID was not going to be able to oppose the Nomination on the merits. He explained to a DCCD staff member that while the Nomination had been tabled, "it appears [the SACHP] are ready to approve it with minor changes from pat. [sic] No input from district. *We are working on next steps.*" (Ex. 1 at 22, emphasis added.)

This was not the first time that COID was going to fail in trying prevent the recognition of the historic value of a Central Oregon canal. In 2014 and 2015, COID had vehemently opposed the nomination of the Pilot Butte Canal Historic District (Cooley Road—Yeoman Road Segment) at the local, state, and federal level, but the historic district was still added to the National Register because it met the criteria for historic

value and integrity.⁷ Perhaps realizing that it would not be able to oppose such nominations on the merits, COID attempted to change the statewide rules concerning preservation of historic resources. COID successfully lobbied the governor's office and SHPO to initiate a rulemaking process through the Department of Land Conservation Development (DLCD).⁸ The proposed amendments would have given COID veto power over historic designation and historic review of its easement property.⁹ Fortunately, these proposed rules failed, primarily because of strong public opposition.¹⁰

Thus, unable to challenge nominations to the National Register on the merits, COID began coordinating with SHPO and representatives of the governor's office in October 2017 to devise a new strategy.¹¹ As revealed in the enclosed public records, public official representatives from these public bodies (and an attorney from the Oregon Department of Justice (DOJ)) met on December 15, 2017, in Central Oregon, to discuss how to undermine the Nomination on grounds unrelated to the substantive review criteria. *Id.* It appears from emails following the meeting, that the public officials had devised a plan to terminate review of the Nomination using the Deschutes County recommendations and a federal law provision that had never been used in the State of Oregon and only a handful of times throughout the entire country. The coordinating officials believed that they could use 54 USC § 302504(c)(2) to allow SHPO

⁷ <https://www.nps.gov/nr/feature/places/15001052.htm>.

⁸ See Letter from Brian Sheets detailing COID's role as the impetus for the rule changes despite previous refusal by the DLCD or SHPO to confirm COID's involvement at all, available at: [http://www.oregon.gov/LCD/docs/meetings/lcdc/012517/Item_12_Supplemental_Packet_Materials%20\(5\).pdf](http://www.oregon.gov/LCD/docs/meetings/lcdc/012517/Item_12_Supplemental_Packet_Materials%20(5).pdf) (pages 19-100.)

⁹ The initial draft of amended rules, jointly proposed by SHPO and DLCD, would have altered the historic preservation rules for the entire state to define easement holders (such as COID) as an "owner" with unilateral power to prevent historic designation under Oregon law, and would have prohibited local jurisdictions from protecting National Register resources without an independent state/local designation—thus providing COID with veto power over historic designation and historic review of its easement property.

¹⁰ An overwhelming public response against the proposed rules resulted in the Rule Advisory Committee proposing—and the Land Conservation and Development Commission adopting—rules in direct opposition to the rule amendments sought by COID. Rather than prohibiting local protection, the new rules mandated local demolition review for National Register listings.

¹¹ Exhibit 3, public records from SHPO, at pages 1-9.

to entirely halt review of the Nomination based on the Deschutes County's recommendations.¹²

Later that month, COID appears to have involved Deschutes County officials in the plan because Peter Gutowsky of DCCD reached out to Ian Johnson of SHPO on December 28, 2017, requesting a meeting between DCCD and SHPO staff to discuss this previously-unused (at least in Oregon) statutory provision and how it may apply to the Nomination. (Ex. 3 at 15-16.) Mr. Johnson responded by saying that he "had planned to contact [Mr. Gutowski] and [his] staff about this very topic in the New Year[,] and invited Mr. Gutowski to propose dates for the meeting between staff. No further records were produced by Deschutes County in regard to this proposed meeting.

On January 2, 2018, COID's attorney Matt Singer dispatched a "demand" letter to SHPO and the DOJ concerning SHPO's failure to enforce 54 USC § 302504(c)(2) by not terminating review of the Nomination based on the Deschutes County recommendations.¹³ The letter stated that "COID does not wish to be in a dispute SHPO[,] but requested that SHPO terminate review based on its legal analysis of the statute. The letter omitted any mention of the earlier meeting and follow-up communications among COID and the recipients (as well as other public officials), which had coordinated this very attack on the Nomination. Rather, the letter ironically stated: "But in fairness to all who come before a state agency, we need a level playing field where all comers are bound by the same rules." *Id.* at 3.

On January 8, 2018, Christine Curran, Deputy State Historic Preservation Officer, "responded" to COID's letter by stating that based on the legal analysis provided by COID, SHPO was in agreement that it had erred and was immediately terminating review of the Nomination.¹⁴ The Nomination was instantly removed from SHPO's website and the agenda for the February 2018 meeting of the State Advisory Committee on Historic Preservation ("SACHP")—without providing notice or opportunity to respond to the Nomination's proponents, or even its author. This letter also omitted any reference to the prior communications on undermining the Nomination.

Upon discovering this unprecedented action by SHPO, law firms Miller Nash Graham & Dunn and Bateman Seidel dispatched letters to SHPO explaining that

¹² Ex. 3, at 10-17 (follow up emails re 54 USC § 302504).

¹³ Exhibit 4.

¹⁴ Exhibit 5.

its interpretation lacked legal basis for several reasons.¹⁵ First, the informal individual comments by members of the HLC could not constitute an official action under Oregon's open meeting laws and second, the statute only authorized SHPO to halt the review until any person appeals the local recommendations.¹⁶

Despite the clear error of its prior legal analysis, SHPO refused to concede that its termination action violated Oregon's open meeting laws and misinterpreted 54 USC § 302504(c)(2). Rather SHPO claimed that it had simply failed to recognize that the revisions to the Nomination should have been treated as a "new" nomination, subject to a new local review. The DOJ refused to respond to multiple inquiries as to whether it would withdraw its/SHPO's earlier interpretation of the federal statute. This posturing appears to be aimed at providing COID and SHPO with a "second bite of the apple" to terminate review of the Nomination purportedly under 54 USC 302504(c)(2)—but based on local decisions that meet Oregon's open meetings laws.

3. The HLC review of the nomination is a quasi-judicial hearing because the Deschutes County has the authority to terminate consideration of the historic district, according to SHPO's interpretation of 54 USC § 302504(c)(2).

Historically, the local recommendations under 54 USC § 302504(c)(2) are treated as advisory in regard to nominations to the National Register by private property owners. Because the proponent would simply object to the termination, the state historic preservation office (including in Oregon) has usually just forwarded the local government recommendations to that state's advisory body (in Oregon, the SACHP), which is the mandated process under 54 USC § 302504(c)(2) when an appeal is "filed" with the state.

SHPO has now, however, interpreted 54 USC § 302504(c)(2) to require not just the "filing" of an appeal, but also an affirmative ruling on the appeal by some

¹⁵ Exhibits 6 and 7.

¹⁶ Upon receipt of such an appeal, SHPO is required to restart the standard review procedures for the Nomination. This is why this particular provision is never discussed in published materials and is not the subject of any published court opinions (i.e., it effectively only halts nominations by the state agency initiated under 36 CFR § 60.6 or those abandoned by citizen proponents following local review). Thus, SHPO should have at least provided notice to the Nomination author and proponents of its intended action (with opportunity to object) prior to the drastic action of removing the Nomination from the SACHP agenda and active review.

unnamed body, based on unspecified grounds. This interpretation eliminates the SACHP's ultimate authority to review nominations under its own discretion, and provides the local government with veto power over nominations within their jurisdictions.

SHPO's novel interpretation and application of 54 USC § 302504(c)(2) causes these previously advisory decisions to now "land use decisions" subject to quasi-judicial review, with the procedural requirements outlined in ORS 197.763. Contrary to the DCCD staff's understanding, it is irrelevant that Deschutes County's decision is in the form of a "recommendation" to another body with ultimate authority. As with Planning Commission recommendations to the Board, quasi-judicial procedures are necessary to protect the public process from back room deals.

All that matters in determining that this is a quasi-judicial process is whether the local decision at the end of the process has a final effect on land (i.e., the second reviewing body does not engage in its own discretionary review, but simply applies the "recommendation" of the local government). *Cent. Eastside Indus. Council v. City of Portland*, 128 Or App 148, 152, 875 P2d 482, 483 (1994) (rejecting LUBA's conclusion that "anything that purports to be a recommendation from one unit of government to another cannot be a final land use decision under either the statutory or the significant impact test, if the subject of the recommendation is within the authority of the second body." (internal quotations omitted); *see also Heritage Enterprises v. City of Corvallis*, 300 Or 168, 708 P2d 601 (1985) (city council's decision that a proposed annexation complied with the comprehensive plan and applicable land use laws was a final land use decision, even though this "recommendation" was referred to the electorate for final approval); *compare Neighbors for Sensible Development, Inc. v. City of Sweet Home*, 39 Or LUBA 766, 772-73, 2001 WL 868326 (2001) ("A preliminary approval under SHMC 17.48.030(C) appears to yield a decision that is final and binding in certain respects on both the city and the applicant. * * * The challenged decision is a "final" land use decision."); and *Goose Hollow Foothills League Association v. City of Portland*, 21 Or LUBA 358, 359-60, 1992 WL 1357271 (1992) ("In adopting its land use decision under Oregon Laws 1991, chapter 3, Tri-Met was free to accept the city's recommendation in whole or in part, or reject the city's recommendation altogether. Such city recommendations are not final decisions subject to our review.").

There is no question that the termination of a National Register nomination is a final land use decision because the review decision is made under local and state land use goals and regulations, and directly impacts the future use and tax

treatment of the property at issue. See OAR 660-015-0000 (planning goals), Statewide Planning Goal 5; OAR 660-023-0200 (local review and designation of historic resources); Deschutes County Code (DCC), Chap. 2.28 (Historic Preservation and HLC); Comprehensive Plan, Section 2.11 (Cultural and Historic Resources Goal and Policies). Because the HLC is given primary authority to review the Nomination under the Deschutes County Code, and SHPO has interpreted federal law to allow local governments to unilaterally terminate review, the HLC's determination of eligibility is a quasi-judicial land use decision.

In a case directly on point, LUBA found that the termination of review of an application for historic designation by a city's historic review board was a final land use decision because it concerned "the application of OAR 660-023-0200(6), an administrative rule that implements Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and ORS 197.772." *McLoughlin Neighborhood Association v. City of Oregon City*, LUBA Nos. 2017-052/054, 2017 WL 4466918 (2017). LUBA stated that although a final decision on the merits of the application was not reached, "the HRB's apparent conclusion that the ORS 197.772(1) refusal to consent deprived it of jurisdiction to continue with its review of the application is a decision that concerns the application of the Goal 5 rule and the city's comprehensive plan and therefore is a land use decision." *Id*; see also *Lake Oswego Preservation Society v. City of Lake Oswego*, 69 Or LUBA 475, 480, 2014 WL 10247708 (2014) ("We agree with petitioners that the city's decision concerned the application of at least OAR 660-023-0200(6), and to that extent the decision concerned the application of Goal 5. For that additional reason, the city's January 7, 2014 decision is a 'land use decision' subject to LUBA's jurisdiction unless some statutory exclusion applies. Intervenor does not identify any statutory exclusion that applies."), affirmed on jurisdictional issue in *Lake Oswego Pres. Soc'y v. City of Lake Oswego*, 268 Or App 811, 816, 344 P3d 26, 29 (2015)¹⁷ (holding that historic designation and revocation involved interpretation of local regulations and state planning goals and thus was a land use decision).

The review of a nomination for a single historic district cannot legitimately be considered a "legislative" decision under *Strawberry Hill 4 Wheelers v. Benton Co. Bd. of Comm.*, 287 Or 591, 602-03, 601 P2d 769 (1979) and its LUBA opinion progeny. The local review of the Nomination is quasi-judicial because it will result in a

¹⁷ , rev'd sub nom. on other grounds, *Lake Oswego Pres. Soc'y v. City of Lake Oswego Hanson*, 360 Or 115, 379 P3d 462 (2016).

determination by Deschutes County, the review is based on a discrete set of circumstances under preexisting criteria, and the action involves a relatively small number of interested parties. *See Leonard v. Union County*, 24 Or LUBA 362, 368 (1992); *Miner v. Clatsop County*, 46 Or LUBA 467, 476 (2004); *see also Fasano v. Bd. of Cty. Comm'rs of Washington Cty.*, 264 Or 574, 580-81, 507 P2d 23, 26 (1973)¹⁸ ("Ordinances laying down general policies without regard to a specific piece of property are usually an exercise of legislative authority[.]").

Accordingly, the procedural requirements for quasi-judicial land use reviews apply to the HLC's review of the Nomination. (Further, SHPO's announced interpretation and application 54 USC § 302504(c)(2) means that all future local reviews of National Register nominations will be subject to this formal type of review.)

4. Even if quasi-judicial review was not required for this decision under state law, Deschutes County Code mandates notice and hearing safeguards.

Deschutes County Code states that the HLC "shall have authority to coordinate historical preservation programs of the county, state and federal governments, as they relate to property within the County." DCC 2.28.040(M). To that end, the HLC is designated to "serve as a hearings body for matters concerning historic and cultural resources within the County and the City of Sisters." DCC 2.28.040(I). "Historic and cultural resources" is defined under the County Code to include listings for the National Register (OAR 2.28.020), and HLC's jurisdiction explicitly includes review of such resources (DCC 2.28.030), and compliance with state preservation laws (DCC 2.28.140).

The HLC is required to conduct all of its activities in open meetings, pursuant to the quasi-judicial requirements in "DCC 22.24.050 through 22.24.160." These requirements supplement the open meeting law of the state. ORS 192.630 *et seq.* Further, because the County code provides for a quasi-judicial process for HLC meetings, the HLC must also observe the requirements in ORS 197.763. *See Smullin v. Jackson County*, 8 Or LUBA 139, 1983 WL 400572 (1983) ("requirements placed upon Jackson County lead us to conclude the process in which it was involved when dealing with petitioners' property also required that it provide petitioners' procedural protections guaranteed under the quasi-judicial process."); *see also Neelund v. Josephine County*, 52 Or LUBA 683, 691, 2006 WL 3258397 (2006) (refusing to allow

¹⁸ *disapproved of on other grounds by Neuberger v. City of Portland*, 288 Or 585, 607 P2d 722 (1980).

modification by staff to decision by hearing officer because county code provided for quasi-judicial process, which thus could not be considered ministerial decision under state law), and *Central Eastside Industrial Council v. City of Portland*, LUBA No. 2016-027, 2016 WL 4585291 (2016) (LUBA looked to the City's process of processing application under City code in determining whether it qualified as quasi-judicial hearing under state law).

5. Due to the extreme bias in favor of COID, the County should acknowledge its extensive ex parte contacts with COID, withdraw its prior recommendations, and decline to further review the Nomination due to its lack impartiality.

Both state statute and local code required the HLC and Board of County Commissioners to observe procedural rules that are meant to ensure fairness in public hearings and process. But even outside of these statutory requirements, Oregon courts have repeatedly stated that "parties to a quasi-judicial land-use hearing are entitled to a tribunal which is impartial in the matter." *Columbia Riverkeeper v. Clatsop Cty.*, 267 Or App 578, 595, 341 P3d 790, 800 (2014) (internal citations omitted). "Impartiality can be destroyed in several ways, including acts of self-dealing, bias, and pre-hearing or ex parte contacts[.]" as well as "prejudgment." *Id.*

It is clear from the public records produced by the County and SHPO, that the County violated state law and local code by failing to observe procedural safeguard, and also failed to provide the Nomination preparer and proponents with even a modicum of fairness in the review of the Nomination. In addition to all of the other improper activities set forth above, the public records reveal that DCCD staff, the Board, and the HLC failed to review the Nomination under applicable historic criteria mandated by federal and state law—instead focusing on COID's efforts to maximize its hydroelectric revenue.¹⁹

It is highly unlikely that the County officials can undo their prejudice in regard to the Nomination. Accordingly, the County should acknowledge its bias caused

¹⁹ State law and County code provide for a separate hearing to review the proposed destruction of a historic feature. The integrity of historic (or other resource) preservation laws are entirely compromised—actually irrational—if the government conflates the concepts of designation and protection. A government may choose to destroy or allow the destruction of a resource in favor of development or another resource, but it should make that decision on an informed basis, not by refusing to admit that a valuable resource is in fact just that.

by prevalent ex parte interactions, withdraw its earlier recommendations, and decline to provide further review of the Nomination due to its lack of impartiality.

6. If the County insists on further review, it must observe the formalities in ORS 197.763 and in the Deschutes County Code.

ORS 197.763 applies to the conduct of all quasi-judicial land use hearings. Specific notice is required at least 20 days before the hearing, and must be sent to all land owners within 250 feet of the property at issue. ORS 197.763(2)-(3). The statute requires that any staff report used at the hearing shall be made available at least seven days prior to the hearing. ORS 197.763(4)(b). Under this statute, the decision in a quasi-judicial matter must be based on only the evidence in the record, either presented at the hearing, or made available to all members of the public. Similar and supplementary requirements are mandated by the Deschutes County Code. DCC 22.24.120.

Further, under state law, the hearing body members are required to disclose all ex parte contacts concerning the issue, and allow interested parties to rebut the substance of those communications. ORS 215.422. The same is required by Deschutes County Code for all hearings conducted by the HLC. Section 22.24.100 states:

"Prior to making a decision, the Hearings Body or any member thereof shall not communicate directly or indirectly with any party or his representative in connection with any issue involved in a pending hearing except upon notice and opportunity for all parties to participate. Should such communication—whether written or oral—occur, the Hearings Body member shall:

"A. Publicly announce for the record the substance of such communication; and

"B. Announce the parties' right to rebut the substance of the ex parte communication during the hearing. Communication between County staff and the Hearings Body shall not be considered to be an ex parte contact."

Similarly, under Section 22.24.105, all hearing body members must disclose personal knowledge of information outside the evidentiary record that is relevant to the matter, and allow all parties to provide a rebut such information on the

record. Following these disclosures, a party is entitled to request recusal of biased members. DCC 22.24.110. Given the breadth and depth of ex parte contacts at issue here, and the demonstrated bias of officials involved, the most prudent course of action for the County is to disentangle itself from the nomination process and allow the usual state and federal actors to review the Nomination in the usual course.

7. Conclusion.

It is clear that Deschutes County has not taken the requisite actions prior to the quasi-judicial hearing concerning review of the HLC's review of the Nomination. At a minimum, the meeting must be rescheduled so that the County can first evaluate whether it should recuse itself entirely from the review of the Nomination. If it decides to proceed with further review, it must observe the procedural safeguards set forth in statute and County code, disclose all ex parte contacts with COID, and attempt to explain how it will be an unbiased judge of the Nomination.

We are not entirely unsympathetic of the position that COID forced the County into. At the time of the October recommendations, SHPO had instructed County officials that they were entirely advisory. Further, it is understandable why County officials would look to COID for historic information on the canal system—especially when the financial records from COID and the Deschutes Basin Board of Control show that COID has spent hundreds of thousands of dollars in recent years on marketing, lobbying, and legal professionals attempting to convince the public that it is primarily interested in water conservation (a theory rejected by LUBA for an earlier proposed piping project), and is a responsible steward of historic resources.

Although not malicious, we ask the County to examine its extensive contact and coordination with COID in regard to the Nomination, and honestly consider whether the process appears to have been fair to the preparer and proponents, and whether it can really provide a fair hearing going forward.

Deschutes County Historic Landmarks Commission
Deschutes County Community Development Department
April 13, 2018
Page 16

We appreciate your valuable time in reviewing these issues. If you have any questions concerning these matters, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in blue ink, appearing to read "S. Liday", is centered on the page.

Steven G. Liday

cc (via e-mail):

Aleta Warren (a.warren.bend@gmail.com)
Carrie Richter (crichter@batemanseidel.com)
Pat Kliewer (pkliewer@hotmail.com)
Jason Allen (jason.allen@oregon.gov)
Ian Johnson (ian.johnson@state.or.us)
Christine Curran (chrissy.curran@oregon.gov)
D. Adam Smith (adam.smith@deschutes.org)

List of Exhibits

- Exhibit 1. Deschutes County public records
- Exhibit 2. Deschutes County Board of Commissioners meeting minutes and materials
- Exhibit 3. SHPO public records
- Exhibit 4. January 2, 2018, letter from COID attorney Matt Singer to SHPO requesting termination of nomination review
- Exhibit 5. January 8, 2018, letter from Christine Curran of SHPO to Matt Singer terminating nomination review
- Exhibit 6. January 23, 2018, letter from Steven Liday (attorney for Aleta Warren) to Christine Curran appealing termination of nomination review
- Exhibit 7. January 19, 2018, letter from Carrie Richter (attorney for Patricia Kliewer) to Christine Curran and Ian Johnson re continuing nomination review

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Thursday, October 12, 2017 1:13 PM
To: ZELLER Tracy * OPRD
Subject: FW: Proposed Central Oregon Canal Historic District Statement of Support

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Roger Austin [mailto:rogaus@gmail.com]
Sent: Thursday, October 12, 2017 1:03 PM
To: ALLEN Jason * OPRD
Subject: Proposed Central Oregon Canal Historic District Statement of Support

To: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C Salem, OR 97301

Date: 10/9/17

With this statement, I certify that I, Roger R. Austin, am the sole or partial owner of the property located at 21805 Bear Creek Rd., Bend, OR 97701, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Legal Name(s) on Title:

Chris & Christine Drape
Roger & Frances Austin

Statement of support:

My personal history to Bend in central Oregon goes back to 1949 when I was 6 years old. We lived in the foothills below Awbrey Butte which was my summer playground. Often my mother would pack me a peanut and butter & jelly sandwich lunch and I would climb up on a water tower which overlooked the Cascades and the city below. An old abandoned flume circled the east side of the butte and my friends and I would walk along that stretch, imagining what it must have been like before any development. I would often ride my bike to the mill sites on the Deschutes River where a sea of logs would be fed up the conveyer chute to be milled into lumber. I spent much time with the draft horses that pulled the lumber on rail cars around the site. The sights and sounds are with me still. I loved the Deschutes River and Tumalo Creek and was familiar with the many

canals they fed. I logged many miles on my bike along the canals and market roads.

I returned to live in Bend permanently in 1981. I wanted my own children to experience what I had so enjoyed in childhood. We bought a home above Shevlin Park, a stones throw from the Tumalo Irrigation District canal. It brought back many wonderful memories of historic Bend and the surrounding area. We were disappointed when this section of the canal was piped. We mourned the loss of all the ponderosa pines along the canal that died shortly thereafter. We worried that our community well might run dry as it was very close to the canal and was over 900 ft. deep. Mostly I regretted the loss of yet another historic memory of my boyhood. So much had changed since I was a little boy. The Pilot Butte Inn was gone without even a marker or monument to its history. I was glad to see the old mill sites remembered by leaving a few of the historic buildings.

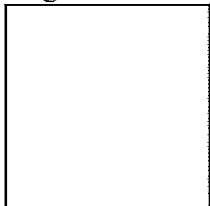
A year ago we moved to Bear Creek Rd. where the COID canal borders our property. Once again I felt close to my own history and those who came before me. I smile to think that we will preserve enough of that history for the benefit of generations to come. Every day I am reminded of what has always been the most wonderful features of historic Bend: our water sources, our mountains and beautiful sky above. I have a few keepsakes, including a room key to the Pilot Butte Inn, a few horseshoes from the old Shevlin Hixon Mill, and a brick from the Kenwood School gymnasium that was built when I was in first grade there and has now been lost to a roof collapse.

My hobby is repurposing old things and making them useful again. It matters to me that we value the old, even as we value the new. The past, present and future are interconnected in ways even beyond our scientific understanding. This includes everything from water molecules to photons to human beings. The uncertainty principle is a fact of life. There is much that we know. There is much more that we do not know. All of that to say that when it comes to managing water resources, not everything we do can guarantee a certain result when we consider all the factors involved. One of the mysteries of quantum physics is that even the act of observing can determine outcomes. I feel like an observer in this process of preserving some canal history. All of us have a stake in the outcome.

Preserving a small fraction of this historic canal seems prudent and a small price to pay without sacrificing the desired end result for all concerned. I believe that preserving this particular proposed section of the canal would be the best choice under consideration. It is close to the population center giving the most people a chance to appreciate its historic significance. It retains all the original infrastructure that is still functional and delivers water to land that has had minimal partitioning and is agricultural in nature. I choose to work my pasture with a vintage Ford 8N tractor, allowing me to appreciate my connection with the past and to enjoy it in the present. The canal is a part of my daily life through all the seasons. Even when empty and resting it reminds me of the seasons of life. It is therapeutic to be close to the land and to water. All of us in central Oregon are beneficiaries.

Respectfully submitted,

Roger R. Austin



ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Tuesday, October 17, 2017 8:14 AM
To: ZELLER Tracy * OPRD
Subject: FW: Central Oregon Canal Historic District Nomination
Attachments: Support letter for Central Oregon Canal nomination.pdf

For the record and SACHP

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Jennie McDonald [<mailto:mail4jennie@gmail.com>]
Sent: Monday, October 16, 2017 7:50 PM
To: ALLEN Jason * OPRD
Subject: Central Oregon Canal Historic District Nomination

Dear Mr. Walden,
Please accept the attached letter as my expression of support for the nomination of a portion of the Central Oregon Canal to the National Register of Historic Places. I very much appreciate this opportunity to provide input to your decision.

Thank you,
Jennifer McDonald
21825 Bear Creek Road
Bend, OR 97701
541-218-3154



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October 8, 2017

State Advisory Committee on Historic Preservation
725 Summer Street N.E., Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District

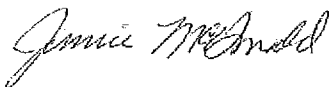
I write to express my full and heartfelt support for the Central Oregon Canal Historic District nomination to the National Register of Historic Places. I cannot imagine a more important or essential element of the history of Bend and Central Oregon than the availability, delivery and use of water to create a vibrant and sustainable community.

The nominated portion of the canal is remarkably representative of the purpose and success of irrigation in this area and a living, working demonstration of the power of irrigation to create and sustain a community. If you look up and out to the horizon, you can see the arid and formidable nature of the land. As you look nearer to the canal, with its laterals and diversions, head-gates and berms, the contrast is immediately evident. Green swaths and squares, ponds and sprinklers, productive fields and active farming operations demonstrate the transformation that the irrigation canal has brought to our area. At the center of it all, is the canal itself. The flow of water is unchanged since the canal was built, the same scene, same resource, same life changing power that began in 1905.

I am very much aware of the finite nature of water and the necessity of judicious and conservative use of this resource. I believe we need a balance between those conservation efforts and the preservation of such an important part of the area's history. The nomination of this section of the canal provides an opportunity to achieve that balance by preserving a section of the canal as it is now, and as it was at construction, demonstrating the very foundation of the settlement of Bend and surrounding communities. With Bend Parks and Recreation district owning a portion of this property, the public has a unique opportunity to see the working canal and distribution system, the rocky, turbulent nature of the ditch itself and the enormous effect that successful irrigation of the land has had on our homes and lives.

Thank you for your time as you consider this nomination. I recognize it is a complex and important question and I appreciate the opportunity to express my views on what I see as the irreplaceable nature of this section of the Central Oregon Canal.

Sincerely,



Jennifer McDonald
21825 Bear Creek Road
Bend, OR 97701
541-218-3154

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21825 Bear Creek Rd, Bend which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Jennifer McDonald 10-7-17
Date

Printed Name: Jennifer McDonald

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21825 Bear Creek Road, Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21885 BEAR CREEK RD., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Judith Suzanne Hanson 10/7/17
Date

Printed Name: JUDITH SUZANNE HANSON

JUDITH SUZANNE HANSON LIVING TRUST
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: P.O. Box 8449, BEND, OR, 97708
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21925 BearCreek Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Gary A. Grand 10/7/17
Date

Printed Name: Gary A. Grand

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21925 BearCreek Rd Bend, Or 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21925 Bear Creek Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Suzanne Grund 10-7-17
Date

Printed Name: Suzanne Grund

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21925 Bear Creek Rd. Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 21975 Bear Crk. Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Allan S. Boss Oct 9, 2017
Date

Printed Name: Allan S. Boss

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 21975 Bear Crk. Rd. Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22015 Bear Creek Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Loretta A. Hadley 10-2-17
Date

Printed Name: LORETTA A. HADLEY

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22015 Bear Creek Rd Bond, Or 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22075 Bear Creek Rd Bend OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Edna Louise Wagner 9/19/17
Trustee, Wagner Trust Agreement 5/8/96 Date

Printed Name: Edna Louise Wagner

Wagner Trust Agreement
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22075 Bear Creek Rd Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22075 Bear Creek Rd Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Frank J Wagner 9-19-17
Trustee, Wagner Trust Agreement 5/8/96 Date

Printed Name: Frank J Wagner

Wagner Trust Agreement
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22075 Bear Creek Rd Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22075 Bear Creek Rd Bend, Oregon which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Julie Rose Van Epps trustee, Julie Rose Van Epps Trust 9/18/17
Date

Printed Name: Julie R. Van Epps

Julie Rose Van Epps Trust
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22075 Bear Creek Rd Bend OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22195 Bear Creek Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Janice M. Turner 9-9-17
Date

Printed Name: Janice M. Turner

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22195 Bear Creek Rd Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22225 Bear Creek Rd; which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Julie Reber 10/7/17
Date

Printed Name: JULIE REBER

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22225 Bear Creek Rd Bend, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 2225 Bear Creek Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Mary W. Reber 10-7-107
Date

Printed Name: MARY REBER

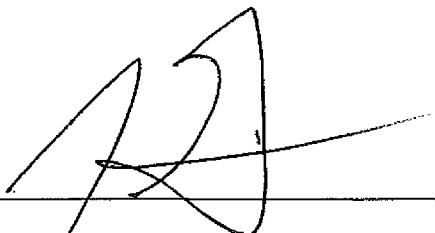
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 2225 Bear Creek Rd Road, OR 97701
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 22225 Bear Creek Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  _____ Date 10-7-17

Printed Name: JASON GILLAM


Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 22225 Bear Creek Rd Bend, OR 9770
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61595 Gosney rd Bend or 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  10-6-17
Date

Printed Name: Rodney c. Gibson

Rodney & Cynthia Gibson Trustees
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61595 Gosney rd Bend or 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61595 Gosney Rd., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Cynthia I. Gibson 10-6-17
Date

Printed Name: Cynthia I. Gibson


Rodney & Cynthia Gibson, Trustees
Legal Name(s) or Title if Different from Above (Printed)

Mailing Address: 61595 Gosney Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61635 Gosney Rd Bend OR which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/28/2017
Date

Printed Name: Kevin Gamble

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61635 Gosney Rd Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61635 Gosney Rd. Bend OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: M. Gamble 9-28-17
Date

Printed Name: Mary Gamble

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61635 Gosney Rd Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61750 Ward Rd Bend, OR 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Ann McCance 10-8-17
Date

Printed Name: Ann McCance

Ann Marie McCance
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61750 Ward Rd Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61775 Tomhawk St, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Margaret Molzen 10/16/2017
Date

Printed Name: Margaret Molzen

Margaret Molzen
Legal Name(s) or Title if Different from Above (Printed)

Mailing Address: 61775 Tomhawk St Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61775 TOMAHAWK ST., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: R.H. Molzan 10/16/2017
Date

Printed Name: RUDY H. MOLZAN

RUDY H. MOLZAN
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61775 TOMAHAWKS, BEND, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61780 Arrow Avenue, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/29/17
Date

Printed Name: Elizabeth K. Towill

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61780 Arrow Avenue Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61781 Arrow Ave. BEND, OR., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: *Angelo Licitra* 9/22/17
Dina M. Licitra Date

Printed Name: ANGELO LICITRA
DINA M. LICITRA 9-22-17


ANGELO + DINA LICITRA REV PART TR
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61781 Arrow Ave. BEND, OR. 97902
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/15/17
Date

Printed Name: Eliesha Paige Stone

Same
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61784 Ward Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/15/17
Date

Printed Name: Jeffrey Michael Stone

Same
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61784 Ward Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61801 Wickiup Road, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Lesley L. Robbins _____ Date

Printed Name: Lesley Linn Robbins _____

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
lot 3, Block 51
Arrowhead Acres
2nd Addition

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61801 Wickiup Road, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Carolyn Sue Robbins 10/10/17
Date

Printed Name: Carolyn Sue Robbins

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road, Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
Lot 3, Block S
Arrowhead Acres
2nd Addition

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61806 Wickiup Rd, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Marta Marie Murphy _____ Date

Printed Name: Marta Marie Murphy _____

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61771 Arrow Ave, Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61835 Walter Court, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Harriett S. Schloer 10/17/17
Date

Printed Name: Harriett Schloer

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61835 Walter Ct., Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61835 WALTER CT, which is a private property located in the ^{Map of lot 181201 B 001200} proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Walter C. Schloer, Jr. 10/17/2007
Date

Printed Name: WALTER C SCHLOER, JR.

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: _____
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61852 Dobbin Road, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Alan Geoffrey Wedel 9-18-2017
Date

Printed Name: Alan Geoffrey Wedel

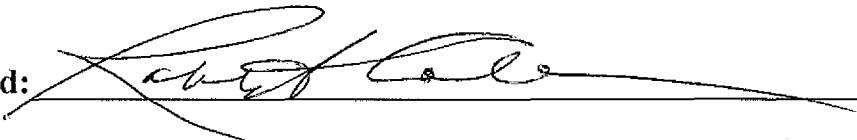
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61852 Dobbin Rd, Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61865 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  10-7-2017
Date

Printed Name: Robert Cole

ROBERT Cole REVOCABLE TRUST /
Karen Cole REVOCABLE TRUST
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61865 Somerset Dr - Bend Or 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61865 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Patricia Karen Cole 10-7-2017
Date

Printed Name: PATRICIA KAREN COLE

Karen Cole REVOCABLE TRUST /
ROBERT COLE REVOCABLE TRUST
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61865 Somerset Dr Bend Or 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61866 WARD RD Bend OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: John Hill 9-23-17
Date

Printed Name: John Hill

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61866 WARD RD Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Due ASAP please
send in

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61867 Somerset Dr., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: _____

Deanna S

10/9/17

Date

Printed Name: _____

Deanna Cully

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: _____

61867 Somerset Dr. Bend, OR 97702

Street

City

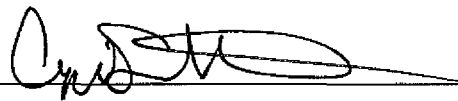
State

Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61877 Somerset Dr., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9-21-17
Date

Printed Name: April Streeter

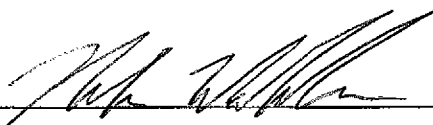
Somerset Northwest LLC
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 9 NW 15th St. Bend OR 97703
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61885 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  8/8/17
Date

Printed Name: Noah Walden

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61885 Somerset Dr Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 621405 Somerset Dr., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Jennifer Walden 2/20/17
Date

Printed Name: Jennifer Walden

Jennifer Eguza Walden
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 621405 Somerset Dr. Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61955 SOMERSET DR. BEND, OR., which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Angelo Licitra 9/22/17
Dina M. Licitra Date

Printed Name: ANGELO LICITRA
DINA M. LICITRA 9-22-17

ANGELO + DINA LICITRA REV. TR ET AL.
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61781 Arrow Ave. BEND OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61975 Somerset DR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Tony Licitera 9/16/17 Date

Printed Name: Tony Licitera

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61975 Somerset Blvd OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61975 Somerset Dr, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Roberto Licitra 9/16/17
Date

Printed Name: Roberto Licitra

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61975 Somerset Dr Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Affidavit of Publication

STATE OF OREGON, COUNTY OF DESCHUTES

I, **Shawn Antoni**, a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not party to or interested in the above-entitled matter. I am the principal clerk of the printer of

The Bulletin

1777 SW Chandler Ave, Bend OR 97702

a daily newspaper of general circulation, published in the aforesaid county and state as defined by ORS 193.010 and ORS 193.020, that

Acct Name: Oregon State Historic Preservation Office

Case:

Legal Description: PUBLIC NOTICE, NATIONAL , REGISTER OF , HISTORIC PLACES , ,

The State Advisory Committee on Historic Preservation (SACHP) will consider the Central Oregon...

a printed copy of which is hereto affixed was published in each regular and entire issue of the said newspaper and not in any supplement thereof on the following dates, to wit:

9/17/17

Page F3

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Bend, Oregon, this 19 day of September, 2017.



Signature

AdName: 20889761A

State of Oregon, County of Deschutes

Subscribed and Sworn to before me this 19 day of Sept, 2017 by Shawn Antoni


Notary Public for Oregon

No. _____

In the _____ Court of the

STATE OF OREGON
for the
COUNTY OF DESCHUTES

AFFIDAVIT OF PUBLICATION

Filed _____

By _____

From the Office of _____

Attorney for _____



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15-4458

NOTICE OF PUBLIC HEARING

The Deschutes County Hearings Officer will hold a public hearing on October 24, 2017, at 6:00 p.m. in the Barnes and Sawyer Rooms of the Deschutes Services Center, 1300 NW Wall St., Bend, to consider the following request:

FILE NUMBER: 247-17-00075-AD.
PROPOSAL: The applicant requests approval to build indoor marijuana production in an existing 5,616 square foot structure on the approximate 392 acre subject property zoned Exclusive Farm Use (EFU-LA).
OWNER/APPLICANT: Central Oregon Management Co., LLC.
Jeremy Klettke.
APPLICANT'S ATTORNEY: Emerge Law Group, Corinne Celko, Attorney.
LOCATION: The subject property has an assigned address of 16500 Dawn Road, La Pine and is further identified as: Tax Lot 200 on County Assessor's Map 21-10-14C; Tax Lot 100 on County Assessor's Map 21-10-22A; Tax Lot 100 on County Assessor's Map 21-10-22D; Tax Lot 100 on County Assessor's Map 21-10-23B; and Tax Lot 200 on County Assessor's Map 21-10-23C.
STAFF CONTACT: Chris Schmoyer, Associate Planner
Chris.Schmoyer@deschutes.org, (541) 317-3164.
DOCUMENTS: Can be viewed and downloaded from: <http://dial.deschutes.org/Real/DevelopmentDocs/113812> or <https://aca.oregon.acecla.com/oregon/>.
Copies of the staff report, application, all documents and evidence submitted by or on behalf of the applicant and applicable criteria are available for inspection at the Planning Division at no cost and can be purchased for 25 cents a page. The staff report should be made available 7 days prior to the date set for the hearing. Documents are also available online at www.deschutes.org.
Deschutes County encourages persons with disabilities to participate in all pro-

cesses. If you need accommodations to make participation possible, please call the ADA Coordinator at (541) 617-4747.

PUBLIC NOTICE

BPRD BOARD OF DIRECTORS MEETING CANCELLATION NOTICE
SDAO BOARD TRAINING NOTICE

The Bend Park & Recreation District Board of Directors regularly scheduled meeting for September 19 is canceled. In its place training will be provided for the Board of Directors by Special Districts Association of Oregon (SDAO) at the District office, 799 SW Columbia St. The next meeting of the Board is October 3, 2017. For more information call 541-706-6151 or visit http://www.bend-parksandrec.org/info/About_Us/board_meetings/

PUBLIC NOTICE
NATIONAL REGISTER OF HISTORIC PLACES

The State Advisory Committee on Historic Preservation (SACHP) will consider the Central Oregon Canal Historic District for nomination to the National Register of Historic Places at its October 20, 2017 meeting at Room 124, North Mall Office Building, 725 Summer Street NE, Salem, Oregon 97301.

The proposed Central Oregon Canal Historic District encompasses a segment of the Central Oregon Canal southeast of Bend, Oregon, between Ward Road on the west and Gosney Road on the east, including 50 feet in both directions from the centerline of the canal. Please contact the State Historic Preservation Office for a district map.

Properties listed in the National Register are: Recognized as significant to the nation, state, or community; Considered in the planning of federal or federally assisted projects; Eligible for federal and

State law in Oregon requires local governments to offer some level of protection to National Register properties. Local governments also have the authority to create local historic districts and landmarks. Local governments may choose to use the National Register public meeting as a source of information for making local historic preservation decisions. Contact Matthew Martin, Associate Planner, Deschutes County, (541) 330-4620 or matt.martin@deschutes.org, for information on local historic preservation projects.

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LOCAL GOVERNMENT PROTECTION OF HISTORIC AND PREHISTORIC PROPERTIES

State law in Oregon requires local governments to offer some level of protection to National Register properties. Local governments also have the authority to create local historic districts and landmarks. Local governments may choose to use the National Register public meeting as a source of information for making local historic preservation decisions. Contact Matthew Martin, Associate Planner, Deschutes County, (541) 330-4620 or matt.martin@deschutes.org, for information on local historic preservation projects.



October 12, 2017

To: State Advisory Commission on Historic Preservation

Re: Proposed Designation of Historical Canal, Ward and Gosney Roads

The Coalition for the Deschutes is a nonprofit 501(c)(3) organization based in Bend, Oregon. The Coalition is a stakeholder and active participant in planning efforts currently underway in the Deschutes watershed.

The Coalition for the Deschutes respectfully requests denial of the applicants' request to have the section of the Central Oregon Canal between Ward and Gosney Roads designated as historic.

Approval of this request would undermine the work of local and national groups and agencies working to restore the historic upper Deschutes River, a State Scenic Waterway and federally designated Wild and Scenic river.

We are in support of the work of the many entities that have analyzed in thorough detail the Deschutes River and its problems through the decades. As a participant in a collaborative effort amongst all parties in the Deschutes Basin, we know changes must come in order to restore the upper Deschutes. Modernization of the canal systems is crucial to restoring the River to the historic flow levels that predate the canal systems.

Prior to the creation of the irrigation system, Deschutes River flows were extremely stable. This is extremely unusual in large rivers, and the stable year-round flows earned the Deschutes the moniker, the Peculiar River. Since the creation of the irrigation system—with its leaky canals and consequent excessive water required as “carry water”—the flows of the Upper Deschutes River have been highly altered, with extreme high flows in the summer irrigation season and extreme low flows in the winter months.

The minimum winter flows have been increased as a result of a recent litigation settlement that is in place while a Habitat Conservation Plan (HCP) is finalized. It is still drastically low in comparison to natural levels, and watershed stakeholders are working together to restore ecologically healthy, permanent winter flow to the Upper Deschutes. Piping the leaky canals is a crucial component of restoring flows to the Upper Deschutes.

The HCP will determine how COID and other Central Oregon irrigation districts must change in order to restore sufficient water to the river to meet the needs of impacted endangered species. It is highly unlikely that the irrigation districts can meet the requirements of the HCP without modernization of the canal systems, including the section described in this request.

It also seems clear to us that the greater good of the historic Deschutes River and its health outweigh the designation of this part of COID's main canal as historic.

Preservation of this section of canal precludes returning the Upper Deschutes to its status as a blue-ribbon fishery. Which is more historically significant—the restoration of the Deschutes to a vibrant, healthy river that is an asset to our entire community and sustains native wildlife, or a section of canal that has been repeatedly modified and will require continued modification to function?

Finally, we question this designation in the context of another study and ruling. As stated in written testimony by COID, a Multiple Property Document approved by the National Park Service was the result of a multi-year study that thoroughly examined the COID system in its totality. This piece of the canal was not designated in that study as historic.

In conclusion, there are multiple reasons why this designation does not make sense from both the macro perspective and as an individual decision. Modernizing irrigation and piping the leaky canals is crucial to restoring our river. Many people, including our own organization, have worked diligently to restore the historic Deschutes River. The river is not separate from the canals. The river predates the canals and requires that we all work together to ensure a healthy river basin now and in the future.

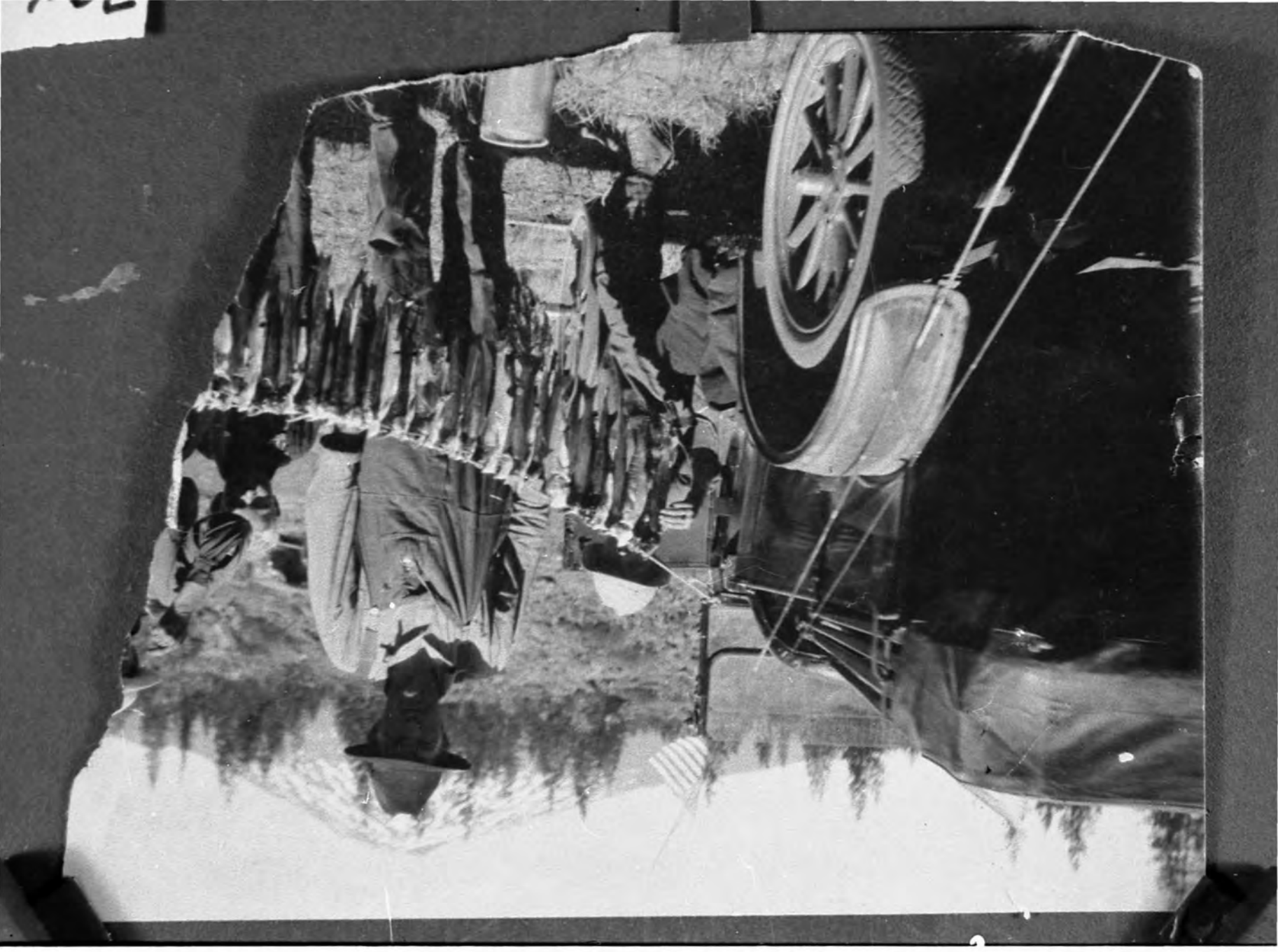
Sincerely,

Gail Snyder
Co-founder, Executive Director

Cc: Tammy Baney, Deschutes County Commissioner
Tony DeBone, Deschutes County Commissioner
Phil Henderson, Deschutes County Commissioner
Lauri Aunan, Office of Governor Kate Brown
Craig Horrell, Central Oregon Irrigation District Manager

Enc. Photos of historic fishery in the Upper Deschutes River. Photos courtesy of the Deschutes County Historical Society.

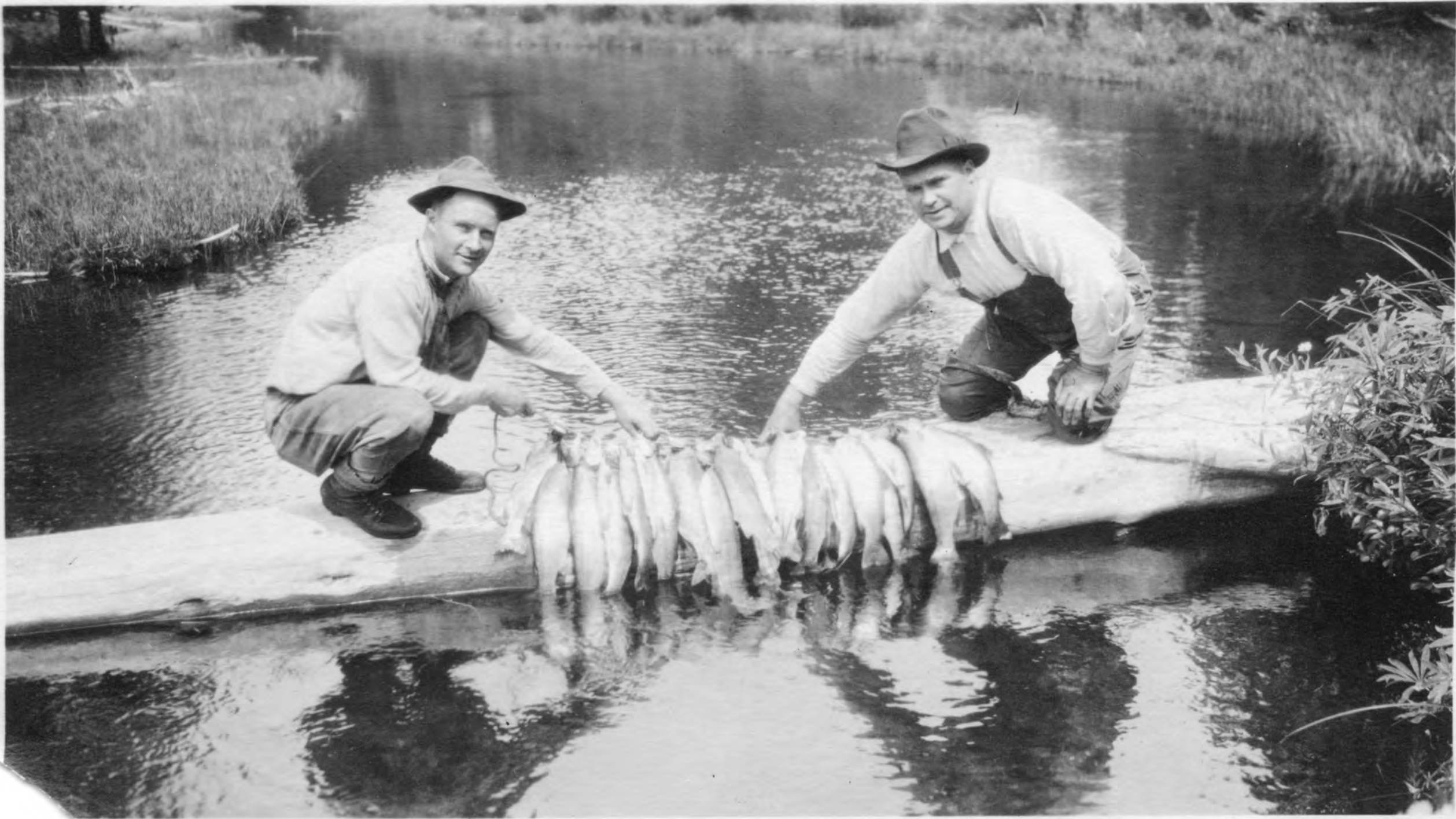
The mission of the Coalition for the Deschutes is to work for the restoration and protection of the Deschutes River and its watershed through education and advocacy so that fish and wildlife can thrive and future generations can enjoy and benefit from a healthy river and watershed.













FISH FROM DESCHUTES RIVER NEAR BENHAM FALLS 1910



ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 3:29 PM
To: Monte Dammarell
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Historic designation of canals in Central Oregon

Mr. Dammarell:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

The National Register is a program of the federal National Park Service and is locally administered by our office. The preview of the State Advisory Committee on Historic Preservation is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Monte Dammarell [<mailto:kmriverhaus@gmail.com>]
Sent: Friday, October 13, 2017 3:41 PM
To: ian.johnson@state.or.us
Subject: Historic designation of canals in Central Oregon

This is a response to the proposed historic register designation of canals in Central Oregon. The Upper Deschutes River is literally dying!! The extreme river flows are causing the following issues:

1. Fish and invertebrates dying in the low flow water months reducing once thriving recreation fishing and tourism industry. Fish spawning areas are being covered with silt.

2. River banks are drying out in the low flow months then being washed away during high flows. Trees are being undermined and washing into the river.
3. River channels are changing due to silt being washed into the river during high flows
4. Vegetation growing in areas not previously seen due to the increased silt and changing river channels
5. Flooding has increased during high flows attributed to changing river channels and additional vegetation.
6. The silt is being washed downstream to be retained in the area known as Mirror Pond in Bend. This results in the pond being dredged every few years at a cost in the millions.

The Water Basin Study currently in process has identified piping/covering the canals and more efficient methods of watering by irrigators as the two primary ways river water levels can be maintained in a more consistent manner. The land in Central Oregon is very porous causing very high leakage and evaporation in the canals. If the canals were piped/covered this water loss would be highly mitigated.

Although the canals may have slight historical significance, is it worth killing the river that so many thousands of people use and enjoy?? This designation will benefit few people, those living on the canals (very few) and those walking on the canals (even fewer). After reading the historic designation proposal it would appear there might be a few historic features on the canal. As an option could these areas remain uncovered, such as the bridge and a small section showing the construction. The majority of the canal would be covered. Also could walking/bike paths be constructed on the canal permitting an infinite number of people outdoor access. This would be similar to rails to trails in many areas. It would also be an excellent connector to neighborhoods and employment areas reducing automobile usage. The canal areas could be beautifully landscaped thus reducing the loss of privacy some property owners abutting the canal might claim.

I urge the commission, approving the canals has far greater downside and very little upside. Please vote against this proposal!!

Monte Dammarell
541-604-0210



Memorandum

To: State Historic Preservation Office of Oregon
From: Tod Heisler, Executive Director, Deschutes River Conservancy
Date: October 10, 2017
RE: Historic Nomination of Central Oregon Irrigation District Canal

I am writing to oppose the historic designation of the section of the COID canal between Ward and Gosney Roads east of Bend.

First and foremost, historic designation would directly conflict with basin stakeholders' extensive efforts to restore flows in the Deschutes River, a river protected by Oregon's Scenic Waterway Act. That section of canal may be old but it is not historic. Its seepage water losses are large and it presents a significant operations and maintenance problem for the district. This section, in particular, should be piped and the water conserved by such a project would be dedicated instream by COID.

I support historic designation and understand its importance, but in the case of old canals, it needs to be done in a manner that does not conflict with other important regional priorities. To this end, I understand that COID has been proactive, has analyzed its entire system for historic designation opportunities and has nominated a couple of segments of its Pilot Butte and Central Oregon Canals.

Surely you won't allow a piecemeal approach to historic designation derail a major effort to modernize COID and restore the Deschutes River.

ALLEN Jason * OPRD

From: Matt Martin <Matt.Martin@deschutes.org>
Sent: Wednesday, August 30, 2017 1:45 PM
To: ALLEN Jason * OPRD
Subject: RE: Central Oregon Canal HD

Hi Jason-

We are OK working with 51 days. That should provide adequate time to schedule a special landmarks commission meeting and session with the Board of County Commissioners.

Matthew Martin, AICP
Associate Planner
Community Development Department
Deschutes County
Office: 541.330.4620/Fax: 541.385.1764
www.deschutes.org/cd



Please note that the information in this email is an informal statement made in accordance with DCC 22.20.005 and shall not be deemed to constitute final County action effecting a change in the status of a person's property or conferring any rights, including any reliance rights, on any person.

From: ALLEN Jason * OPRD [<mailto:Jason.Allen@oregon.gov>]
Sent: Tuesday, August 29, 2017 4:32 PM
To: Matt Martin <Matt.Martin@deschutes.org>
Cc: JOHNSON Ian * OPRD <Ian.Johnson@oregon.gov>
Subject: Central Oregon Canal HD

Hi Matt,

One last thing – the regulations say that we need to have these notices out to the appropriate parties 60 days ahead of the SACHP meeting. Because the package went to Bend, rather than Deschutes, there are only 53 days left, and when you get it, 51 days. Are you okay with 51 days for review of the nomination this time, rather than the full 60? If so, let me know in a response to this email.

Thanks,
-Jason

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

10-16-17

To the National Register of Historic Places:

With regards to the nomination of Central Oregon Canal Historic District (Ward Road- Gosney Road Segment), I want to thank you for looking at this nomination because I believe you will see it is a really good one.

The canals were the beginning of people living in Central Oregon, 1898 is when the surveying started. They were built to encourage settlers to move to the Central Oregon area from all over the United States and Europe. Some of those families are farming that land today. As far as the strength of the historic value or significance of this stretch you could not find a better location.

There are original flume pilings, thousands of lava rock pavers that line the side walls. They were precisely placed to move the water with little resistance. There are drill holes all down the canal both in and out of the canal. The men working on the canal drilled the holes and poured dynamite powder into them. The explosion blasted the solid, lava flow rock bed into smaller rocks that could be dragged out to the sides with horses. Those are visible in the canal for the nine months when the water is turned off and alongside the canal all year round. You will also see a wood and metal bridge built in 1928 and cat walks created to allow access to the head gates. It's as if they have been untouched for over 100 years.

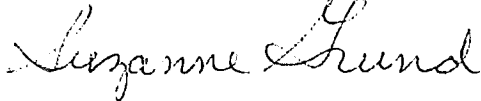
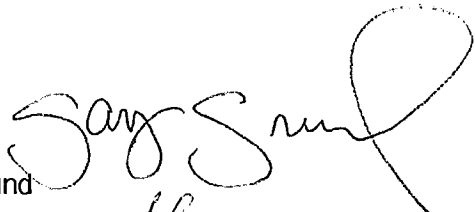
We feel that this amazing example of our history deserves to be protected and reserved so the community of Central Oregon can enjoy seeing the work these men put in to put Bend on the map.

We are proud owners of the Canal with deeded water rights sold to this property by the Carey Act.

Respectfully,

Gary Grund

Suzanne Grund



Holland & Knight

111 S.W. Fifth Avenue | 2300 U.S. Bancorp Tower | Portland, OR 97204 | T 503.243.2300 | F 503.241.8014
Holland & Knight LLP | www.hklaw.com

Matt Singer
(907) 830-0790
matt.singer@hklaw.com

October 12, 2017

Jason Allen
Oregon State Historic Preservation Office
725 Summer Street NE Suite C
Salem, OR 97301-1266

Re: Central Oregon Irrigation District's Comments on Proposed Central Oregon Canal Historic District, Ward-to-Gosney Road

Dear Mr. Allen:

Please accept these comments on behalf of Central Oregon Irrigation District (COID) in opposition to the proposed nomination of the Ward Road to Gosney Road section of Central Oregon Canal to the National Register of Historic Places. The nomination does not meet the criteria for listing. More significantly, the State Historic Preservation Office (SHPO) is in breach of its Memorandum of Agreement with COID and the Bureau of Reclamation by considering this nomination outside of the detailed process agreed upon by the parties for the study, documentation, and preservation of these historic resources.

BACKGROUND & CONTEXT FOR THIS NOMINATION

COID serves nearly 3,600 patrons in Central Oregon. It operates two main canals, the Central Oregon Canal and the Pilot Butte Canal, that provide irrigation water to family farms, municipalities and school districts, and business and residential properties located in and outside of Bend, Redmond and surrounding Central Oregon communities.

COID is pursuing a long-term plan to responsibly manager its water resources for the benefit of its patrons and the Deschutes Basin. Piping open irrigation canals is an important aspect of COID's overall plans, and provides numerous benefits for the region, the state, and the United States. The piping of COID's water delivery system is a priority for COID in order to protect and improve water quality, conserve water, and increase instream flows in the Deschutes River for species listed under the Endangered Species Act.

There are locations along the COID canals with potential for hydroelectric development, which can create sustainable renewable energy for the community and a sustainable income for COID to implement further conservation measures. The Ward-to-Gosney section of the Central Oregon Canal, however, does not provide hydroelectric potential. Rather, this is a stretch of canal that presents significant water loss due to seepage and evaporation, as well as ongoing maintenance challenges. COID will eventually pipe this section of canal to conserve water and meet its obligations to increase instream flows and improve habitat for listed species.

The Ward-to-Gosney nomination is brought by a group of homeowners who enjoy a water feature on their property when the canals are operating. This is a classic Not-In-My-Backyard ploy to create procedural and substantive hurdles to make it more difficult for COID to modernize its system and conserve water for the benefit of the Deschutes Basin. SHPO should recognize that this is an abuse of the nomination process, and that it is entirely inconsistent with the collaborative process envisioned by the Memorandum of Agreement between SHPO, COID and the U.S. Bureau of Reclamation.

SHPO IS IN BREACH OF THE SHPO-COID-BUREAU MEMORANDUM OF AGREEMENT

In February 2014, the Oregon State Historic Preservation Office joined a Memorandum of Agreement (MOA) with the U.S. Bureau of Reclamation and COID. *See* Exhibit A, MOA No. R14MA13733. That MOA provided a model for the comprehensive study, analysis, and preservation of historic resources and for cooperation among different public agencies. The MOA arose out of the mutual recognition of the parties that COID would be undertaking to convert significant portions of its open canal system to a subterranean, piped system. Among other things, the MOA provided for development of a Multiple Property Document (MPD), followed by a Programmatic Agreement. Notably, the parties agreed that “All parties shall use the Multiple Property Document ... to identify contributing segments of the canal system....”

The parties to the MOA also agreed that following completion of the MPD COID would consult with Reclamation and SHPO and select “appropriate, contributing segments to be listed in the National Register of Historic Places through the MPD.”

Through this MOA, COID hired experts and conducted a detailed study of the historic resources of its irrigation systems, explaining how those fit with the history of the region and cataloguing the type and nature of the supporting elements within the historic district. COID’s MPD is an ambitious and comprehensive historic study. Out of the MPD

process, and consistent with its obligations under the MOA, COID then nominated two canal segments, at the Redmond Homestead and Brasada Ranch, for placement on the National Register of Historic Places.

SHPO has now violated both the letter and spirit of the methodical, holistic approach embodied in the MOA by considering a piecemeal nomination of the Ward-to-Gosney section of the Central Oregon Canal outside of a Programmatic Agreement and outside of the process SHPO agreed to in the MOA. The entire point of the MOA was to engage in a comprehensive study of these resources, to select important and representative sections for preservation, and to acknowledge that much of the remainder of the system would ultimately be piped to promote water conservation projects. SHPO's failure to live up to its end of the bargain in the MOA is extremely concerning, and may require legal action. At minimum, SHPO should consider whether its conduct on this nomination will discourage parties in the future from entering into agreements with the agency or from engaging in expensive programmatic studies for Multiple Property Documents.

THE NOMINATION DOES NOT MEET THE INTEGRITY CRITERION FOR LISTING

The nomination is factually incorrect when it asserts that this section is uniquely representative of the original Central Oregon Canal. To the contrary, this section has required substantial maintenance and reconstruction that has affected its historic integrity.

As detailed in the attached report marked as Exhibit B, and the attachments thereto, the geology and topography in this area has created difficult maintenance challenges for COID. As a consequence, several sections of the canal in the nominated section have been subject to excavation and fill activities, installation of rip rap, spreading of silt materials, and other ongoing modifications. These activities go beyond mere routine maintenance and have required substantial physical alteration and reconstruction of stretches of the canal. Attached to Exhibit B are engineering reports and other documents that identify some of this substantial reconstruction effort from the recent past. The nomination ignores these events, and makes almost no attempt to discuss the likely reconstruction events that occurred in this section of canal over the last century. The canal is an operating utility conveyance, and as such has been in a state of constant modification and improvement over the last century. The nomination is factually wrong to claim this section is unaltered or representative of the original canal. The challenging geology and geography of this particular section means that it has required more maintenance, construction, and reconstruction by COID than any other section along the Central Oregon Canal.

When considering this history of construction activities and how it impairs the historic integrity of this section of canal, SHPO should also consider the practical and safety problems with a nomination. As documented in the exhibits to these comments, COID has repeatedly had to perform emergency construction activities to address canal collapse, burrowing animals, and erosion. Under local law, some of these construction activities would require prior approval from the Deschutes Historic Landmark Commission if the section is to be nominated. Yet the Deschutes County Historic Landmark Commission meets only quarterly. If a canal is in imminent danger of collapse and could pour hundreds or millions of gallons of water onto a private property or residence in this area, is COID supposed to submit an application to the Landmark Commission and wait a few months for permission to act?

In evaluating the Integrity of the proposed nomination, SHPO should consider such factors including the Location, Design, Setting, Materials, Workmanship, Feeling, and Association. These factors also weigh against the proposed nomination.

- **Location.** The nomination makes the inconsistent claim that the Ward-to-Gosney section of the Central Oregon Canal is both unique and representative of the entire canal. Which is it? In truth, there is nothing terribly significant about the location. Unlike the Redmond Homestead nomination for the Pilot Butte Canal, where the nominated linear feature was linked directly to the founding of the City of Redmond and its early homesteading, there is no such link between the Ward-to-Gosney section and adjacent land parcels, most of which were developed only in recent decades. Indeed, much of the discussion about adjacent use of land is outside the period of significance, seeing as this area was developed and inhabited decades after the canal was constructed.
- **Design.** The Brasada Ranch nomination is an example of a nomination where Design was a significant contributing factor to the nomination's integrity. In that nomination for a segment of the original Central Oregon Canal, there are significant engineering accomplishments that reflect important design innovation and ingenuity. In contrast, the Ward-to-Gosney section is primarily a large ditch. The purpose of the National Registry of Historic Places is not to celebrate our ability to dig a ditch, but rather to cherish those important and significant structures from our past. The Design factor weighs against the nomination.

- **Setting.** The nomination does not establish a reason why the Setting of this proposed canal section is significant. There is nothing distinguishing the nominated section from sections immediately east or west along the linear feature. In addition, the Setting is entirely along private land parcels, such that it does not provide easy public access. Rather, the Setting is important to the proponents primarily because the canal runs through their backyard.
- **Materials & Workmanship.** The nominated canal section is essentially a large ditch. Neither the Materials nor the Workmanship reflect noteworthy or important accomplishment. Unlike, for example, the Brasada Ranch nomination that included important engineering accomplishments in the structures built in the area to convey water across a dry creek canyon, this section of canal does not. In addition, the substantial re-construction activities, along with frequent re-distribution of silt bars along the canal, means that much of the canal has been altered and does not reflect its original materials or workmanship. These factors weigh against finding sufficient Integrity to support the nomination.
- **Feeling.** “Feeling” is an admittedly subjective criterion for evaluating Integrity, and different people may have different feelings about whether the Central Oregon Canal “feels” historic. But the reality is that this section of canal is an operating utility conveyance that has required reconstruction and heavy maintenance, such that regardless of subjective feeling the section is objectively not an historic structure.
- **Association.** A final factor in evaluating Integrity is whether the nominated structure has a clear Association to historic events. The nomination provides a lot of words cut and pasted from prior nominations that discuss the general historic events in Central Oregon, but there is very little that ties the specific Ward-to-Gosney Road section to these events. The nomination does not meet the burden of proving that its Association to historic events warrants inclusion on the National Register.

COID IS THE OWNER OF CENTRAL OREGON CANAL AND OBJECTS TO ITS INCLUSION ON THE NATIONAL REGISTER

National Park Service lacks authority to include private property on the National Register if the owner of the property objects by notarized statement before the property is listed. 36 C.F.R. § 60.6(r). Under National Park Service regulations, “[t]he term owner or

owners means those individuals, partnerships, corporations or public agencies holding fee simple title to property. Owner or owners does not include individuals, partnerships, corporations or public agencies holding easements or less than fee interest (including leaseholds) of any nature.” *Id.* § 60.3(k). As explained below, COID falls within this definition of “owner” and objects to the inclusion of Central Oregon Canal on the National Register.

COID (as successor to the Pilot Butte Development Company and the Deschutes Irrigation and Power Company) acquired a right of way for Central Oregon Canal under the Act of March 3, 1891 (the “Right of Way Act”). As required by the Right of Way Act, the Deschutes Irrigation and Power Company filed with the local land office an as-built map of the canal. Our understanding is that the Department of the Interior approved the map on March 3, 1903.

The Right of Way Act granted a “right of way ... to the extent of the ground occupied by the water of any reservoir and of any canals and laterals and fifty feet on each side of the marginal limits thereof.” 43 U.S.C. § 946. The U.S. Supreme Court described the scope and nature of the property interest granted under the Right of Way Act in *Kern River Co. v. United States*, 257 U.S. 147 (1921). In *Kern River*, the Court explained: “The right of way intended by the [Right of Way] Act was neither a mere easement nor a fee simple absolute, but a limited fee on an implied condition of reverter in the event the grantee ceased to use or retain the land for the purpose indicated in the act.” *Id.* at 152.

Lower courts have further explained the concept of a “limited fee.” The Arizona Court of Appeals, in a case regarding the Right of Way Act, described the characteristics of a limited fee as follows:

It is a right to use the surface of the land for a specific purpose. Such land has definite boundaries which must be recorded with the Federal Government. The limited fee cannot be conveyed to be used for any purpose other than that specified in the grant and cannot be taken by adverse possession for any other purpose. If the limited fee is abandoned or forfeited it can only be by virtue of Federal statute or regulation and the fee reverts back to the United States. The limited fee owner has a superior right to the surface of the land against anyone else. The limited fee is used for railroads, pipelines, power plants, irrigation ditches and reservoirs, canals, etc.

Wiltbank v. Lyman Water Co., 477 P.2d 771, 774 (Ariz. Ct. App. 1970). Based on this description, a limited fee involves only two ownership interests: the grantee's current interest and the United States' reversionary interest.

The Wyoming Supreme Court distinguished between the grantee's current interest in the ground occupied by water – the reservoir, canal, or lateral – and the 50-foot right of way that extends from the margins of such reservoir, canal, or lateral. *See Johnson Irrigation Co. v. Ivory*, 24 P.2d 1053, 1057-58 (Wyo. 1933). Regarding the ground occupied by water, the grantee has “the right to the exclusive and continuous use and possession of the land so occupied and, therefore, has a fee and not a mere easement.” *Id.* Although the grantee's ownership interest is subject to a condition that the property be used for the purpose of irrigation and purposes subsidiary to irrigation, the grantee “may, while the estate continues, have *the same rights and privileges as an owner in fee simple.*” *Id.* at 1058 (emphasis added). Regarding the additional 50-foot right of way, the grantee's right “is for uses which may be only intermittent and occasional, and is not a proprietary interest in the land itself. It is in the nature of an easement appurtenant to the ‘ground occupied’ by the [water].” *Id.* at 1057.

Here, COID holds a limited fee in the Central Oregon Canal and a 50-foot right of way that extends from the margins of the canal. With respect to the canal, this means COID has the same rights and privileges as an owner in fee simple. In addition, COID owns as a private property owner several tax lots, both underneath sections of the nominated canal and adjacent thereto.

Because the National Park Service defines “owner” to include entities holding fee simple title to property, COID has the right to object to the inclusion of Central Oregon Canal on the National Register. This interpretation is consistent with 54 U.S.C. § 302105, which required the Secretary of the Interior to “promulgate regulations requiring that before any property may be included on the National Register ... , the owner of the property ... shall be given the opportunity (including a reasonable period of time) to concur in, or object to, the nomination of the property for inclusion or designation.” 54 U.S.C. § 302105(a). Failure to recognize COID's ownership of the canal would be contrary to Congress' intent that the owner be given the opportunity to object to the nomination.

The nomination form fails to distinguish between COID's ownership of Central Oregon Canal and the ownership of the real property underlying the canal. The nomination form includes some description of the boundaries of the properties adjacent to, and in some cases underlying, Central Oregon Canal, but it fails to identify COID as the owner of the canal itself. COID is the owner of the “primary structure” identified in the nomination

Holland & Knight

Jason Allen
October 12, 2017
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form and objects to its inclusion on the National Register. On this basis alone, the nomination should be rejected.

In addition, COID owns a number of private parcels of land along the nominated canal. These parcels are held in fee simple and are managed as private property. COID therefore also objects as a private property owner. COID's Notarized Owner Objection Statements, pursuant to 36 C.F.R. parts 60.1-60.15, are attached hereto and incorporated herein as Exhibit C.

Very truly yours,

HOLLAND & KNIGHT LLP



Matt Singer

MS/jmh

Enclosures – Exhibits A-C

#53909862_v1

MEMORANDUM OF AGREEMENT
No. R14MA13733
AMONG
THE U.S. BUREAU OF RECLAMATION,
THE OREGON STATE HISTORIC PRESERVATION OFFICE
AND
CENTRAL OREGON IRRIGATION DISTRICT

For
Piping of a Segment of the I-Lateral

ALFALFA VICINITY, DESCHUTES COUNTY, OREGON

This Memorandum of Agreement (MOA) is entered into by Bureau of Reclamation, Columbia-Cascades Area Office (Reclamation), the Oregon State Historic Preservation Office (SHPO) and the Central Oregon Irrigation District (District) to define their respective roles in mitigation efforts related to the piping of the I-Lateral of the Central Oregon Irrigation District System (System). This MOA outlines separate, but related mitigation for the current undertaking (subterranean piping of a Segment of I-Lateral) and the proposed future piping of the remainder of the canals, laterals, sub-lateral and ditches within the District. This MOA replaces MOA No. R12MA13723 thereby canceling it in its entirety.

1. Background

The District is located in Deschutes County. The District provides irrigation water within the Central Oregon Tri-county area with 43,000 acres delivered to water users in the vicinity of Bend, Alfalfa, Powell Butte, Redmond, and Terrebonne, within the upper Deschutes River basin.

A. I-Lateral Piping

Under the current undertaking, the District intends to protect and improve water quality and improve water delivery by converting approximately 4,800 feet of open ditch laterals within the I-Lateral of the System to pipe, in T17S R14E Sections 25, 26 and 36.

The District has been awarded a grant through Reclamation's WaterSMART Program to perform the work. Because Reclamation-administered Federal funds will be involved in this project, the Section 106 process of the National Historic Preservation Act was applied to identify affected historic properties.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the District has documented the extent of the Lateral within the current undertaking's Area of Potential Effects for historic and archaeological resources to standards acceptable to Reclamation and SHPO.

Reclamation, in consultation with SHPO, determined that replacement of the open I-Lateral with the pipe will have an adverse effect upon the historic integrity of the Lateral. Reclamation notified the Advisory Council on Historic Preservation (Council) of the adverse effect on the I-Lateral pursuant to the Code of Federal Regulations (CFR) 36 CFR Section 800.6(a)(1), and in a letter dated September 17, 2012, the Council indicated that their participation is not needed in the consultation for resolution of adverse effects from this undertaking.

Specific mitigation strategies designed to address the adverse effect of this undertaking are identified below, in section 3.A.

B. Future Piping of Canals, Laterals, sub-Laterals, and Ditches

Through discussions between Reclamation, SHPO, and the District related to future project planning and the stated intentions of the District, a proposal to programmatically mitigate for future adverse effects related to the future piping of canals, laterals, sub-laterals, and ditches throughout the District has been developed. This MOA is intended to provide mitigation for such future piping efforts.

Specific mitigation strategies designed to address the adverse effects of these future undertakings are identified below, in section 3.B.

C. Interim Management

Until the Programmatic Agreement is signed and in place, all consultation regarding non-Federal undertakings will be reviewed by SHPO under standard State review practices, as defined in Oregon State Regulations (ORS) 358.653.

This MOA is entered into under the authority of the National Historic Preservation Act of 1966 as amended, as specified in the regulations in 36 CFR 800, and specifically in Section 6(c) – Resolution of Adverse Effects without the Council.

2. Purpose and Applicability

This MOA will serve to define the necessary actions for documentation of the System in its current state, define in more detail the historical significance, contextual setting, character-defining characteristics and the contributing properties within the System, and set the parameters by which future actions to pipe the System can be accomplished. This MOA will reduce the need to consult with the SHPO on a case-by-case basis when qualifying future activities (defined as subterranean piping of canals, laterals, sub-laterals, and ditches) take place on the System, and provides for a schedule that allows the SHPO to be updated on implemented actions.

This MOA does not apply to projects affecting any feature or element that is or may be individually eligible for listing in the National Register of Historic Places. Federal undertakings that affect these elements of the District will continue to be reviewed under standard Section 106 review processes (36 CFR 800). Non-Federal projects will continue to be reviewed under ORS 358.653.

3. Implementing Actions

A. Piping of I-Lateral

The SHPO, Reclamation, and the District agree that the current undertaking, consisting of the subterranean piping of approximately 4,800 feet of the I-Lateral, currently an open-ditch structure, represents an adverse effect to the National Register-eligible District water conveyance system. In order to mitigate that adverse effect, the following shall be implemented:

1. Reclamation will:

- (a) Consult with the proper interested parties, such as the Council, SHPO, and the Confederated Tribes of the Warm Springs Reservation.
- (b) Ensure that mitigation efforts defined in this MOA as part of the current undertaking (identified below, Section 3.A.2) are completed to the standards set forth below.

2. The District will:

- (a) Perform or cause to be performed the Historic Documentation of the System:

- Following all applicable guidance provided by the National Park Service and SHPO, the District will conduct a historic properties inventory of the entirety of the District facilities and infrastructure related to water conveyance (i.e., not to include district offices and equipment/vehicle maintenance or storage facilities). This inventory will document all water-conveyance system buildings and structures, provide locational information (in GIS format, using lines to represent canals, etc., and points or polygons, as appropriate, to represent features) for all water conveyance-related buildings and structures, as well as associated features. The inventory will meet the requirements set forth for Reconnaissance Level Surveys, as defined in the document, “Guidelines for Historic Resource Surveys in Oregon.” Prior to initiation of the survey, a written, detailed survey design will be submitted to SHPO for review and concurrence.
- This inventory will be completed and submitted to Reclamation and SHPO for draft review within three (3) years of the date of the final signature on the document. Comments and revision requests from Reclamation and/or SHPO will be addressed, and a final version of the inventory will be submitted within one (1) year of the receipt of such comments.

B. Future Piping of Canals, Laterals, sub-Laterals, and Ditches Elsewhere Within the District

SHPO, Reclamation, and the District understand that it is the intention of the District to convert significant portions of the system of open canals, laterals, sub-laterals and ditches within the District to a subterranean, piped system. In order to mitigate for future adverse effects that would arise from these efforts, Reclamation, SHPO and the District have agreed to mitigate programmatically through the following measures in order to reduce time, effort, and resources required to conduct standard Section 106 and/or ORS 358.653 consultation:

1. Develop a Programmatic Agreement (PA)

- (a) Reclamation, SHPO, and the District shall enter into a PA to allow for the more efficient fulfillment of the entity’s obligations under Section 106 of the National Historic Preservation Act, as amended, and Oregon Revised Statute 358.653, as applicable.
- (b) All parties shall use the Multiple Property Document (see Section 3.B.2., below) to identify contributing segments of the canal system to be managed under the PA and any subsequent documents created as part of the process. The PA will include, at minimum:
 - A list of routine maintenance and minor construction activities and actions that do not adversely affect the historic resource and that are exempt from regular review by SHPO;
 - A provision to address emergency situations where catastrophic breach of the canal or other unforeseen event or eminent threat endangers human life or property. Such a provision shall allow the District to act on the immediate situation without consultation and address compliance with applicable cultural resource laws in consultation with appropriate federal agencies and stakeholders within 30 days of the incident.
 - An inadvertent discovery clause, which will outline procedures to be followed when unknown, unanticipated cultural resources are discovered due to District activities;
 - A description of annual reporting requirements and timetable for reporting activities undertaken by the District where the provisions of the PA were applied;

- A defined effective period of ten (10) years with provisions for the document to be reviewed at five years from last date of signature, amended as necessary, and the effective period continued, based on consultation. If appropriate, the effective period can be extended for an additional ten (10) years (with an additional five-year review), subject to the agreement of Reclamation, SHPO, and the District.
- (c) The PA may also include a probability model for subsurface archaeological sites, cultural resource treatment plans, and preservation plans, as agreed to by the signing Parties.
- (d) Reclamation, SHPO, and the District, as well as any other interested, consulting parties, will be signatories to the PA.
- (e) Until the PA is signed and in place, all consultation regarding future federal undertakings (those not covered under Stipulation A) affecting the District water conveyance system will be reviewed by Reclamation and SHPO under standard Section 106 review practices, as defined in 36 CFR 800.

2. Develop Multiple Property Document (MPD)

- (a) Following all applicable guidance provided by the National Park Service and SHPO for the preparation of MPDs, the District will edit the MPD, *Historic Agricultural Resources in Central Oregon*, which is currently in draft form, as prepared by Claeysens and Tomlinson (2006) under a previous Reclamation water conservation grant. The MPD will be prepared sufficiently such that subsequent Irrigation Districts are able to add their district-specific contexts and registration requirements. The MPD elements will be based on the results of the Reconnaissance Level Survey inventory created as a result of Stipulation A.2. (above). The MPD elements to be developed include:
1. General framework for the functioning of the MPD, once registered, including Sections A through D (complete), Sections E-I such that deal specifically with the District, but that includes general introductions, contexts, and registration requirements that will be applicable across all irrigation districts included in the final MPD;
 2. Establishment of the various historic contexts pertaining to the history and significance of the District. The historic context(s) will be based on historical research, and supported by historical documents and images;
 3. Development of associated property types and general and type-specific registration requirements through which identified elements of the system can be evaluated for eligibility (including consideration of significance and integrity) for inclusion in the NRHP through the framework of the MPD; and
 4. A GIS-based map of the entire system identifying the location, extent, and features of the District, and any other necessary appendices, shall be included. The map should identify elements and sections of the System as either contributing or non-contributing to the District as a comprehensive historic resource.
- (b) The draft MPD (including all GIS information) will be submitted to Reclamation and SHPO for review and comment within three (3) years of the date of the final signature of this MOA. Draft MPD and nomination materials will be submitted to Reclamation and SHPO for review by SHPO and the Oregon State Advisory Committee on Historic

Preservation (SACHP). The District will address any SHPO and SACHP comments prior to forwarding the document to the National Park Service for final consideration.

3. Preservation and Interpretation

- (a) Following completion of the draft MPD elements described above (Stipulation B.2.a-b), the District, in consultation with Reclamation and the SHPO, shall select appropriate, contributing segments to be listed in the National Register of Historic Places through the MPD. These segments will be selected based on the following criteria:
 - 1. The segments will be high-integrity, substantial, contributing segments (minimally, one substantial segment each in the Pilot Butte Canal and the Central Oregon Canal) to the overall eligible District;
 - 2. The segment should include a variety of features, such that it well-represents the function and appearance of the water conveyance system, as it appeared as an intact system;
 - 3. The segment should be of sufficient length that on-site interpretation (see Stipulation B.3 (b), below) can be achieved in an attractive, well-organized fashion, without crowding or overwhelming the resource itself.
- (b) Once selected, the identified segment will be cleaned, repaired, and returned to working condition in a way that meets the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the immediate vicinity prepared such that it creates a welcoming, attractive environment for the public visitation and interpretation of the resource.
- (c) The interpretation of the resource will be achieved through the use of static or active displays that relate the history, function, and significance of the Central Oregon Irrigation District water conveyance system. Such displays will be presented in a format that is weather- and vandal-resistant, attractive, and engaging. Draft content and layout of the interpretive display(s) will be submitted to Reclamation and SHPO for review and comment, and if any revisions are requested, revised versions will be submitted for a second review prior to fabrication. Upon acceptance of the draft content by Reclamation and SHPO, the District will cause the interpretive display to be constructed.
- (d) Once constructed, the interpretive site and displays must be maintained by the District in an attractive and functioning condition.

4. Completion of this MOA

The terms of this MOA will be considered to be completed when the above implementing actions (A-B) have been completed to the satisfaction of Reclamation and SHPO. Upon completion of the implementing actions, all adverse effects resulting from subterranean piping of *all canals, laterals, sub-laterals, and ditches will be considered to be fully mitigated*, and may proceed without Section 106 or ORS 358.653 (as appropriate) consultation with Reclamation or SHPO.

5. Period of Performance

This MOA shall become effective on the date of the last signature hereto and extend three years after the date of the last signature. The MOA will also be considered terminated once all stipulations are complete, or five years after the date of the last signature on this MOA. Any party may terminate this MOA by providing 30

days written notice to the other party(ies). Any party may formally request modification of the MOA by providing a written request to the other party(ies).

If this MOA is terminated prior to completion of the above stipulations, then all projects undertaken from the date of the final signature not covered by the PA (should it be in effect) on this MOA must be reviewed under standard review practices under Section 106 of the National Historic Preservation Act, or under ORS 358.653, as appropriate.

6. Modifications

Reclamation, SHPO or the District may formally request modification of this MOA. Modifications shall be made by mutual consent of Reclamation, SHPO and the District by the issuance of a written modification to this MOA, signed and dated by all parties prior to any changes being performed.

7. Principal Contacts

The principal contacts for this MOA are:

For Reclamation:

Chris Horting-Jones
Archeologist
1375 SE Wilson Ave. #100
Bend, OR 97701
Phone (541) 389-6541
Fax (541)-389-6394
Email: chortingjones@usbr.gov

For the District:

Laura Wollam
Grant Specialist
Central Oregon Irrigation District
1055 SW Lake Ct.
Redmond, OR 97756
Phone (541) 504-7577
Fax (541) 548-0243
Email: lauraw@coid.org

For SHPO:

Jason Allen
Historic Preservation Specialist
State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301-1266
Phone (503) 986-0579
Fax (503) 986-0793
Email: Jason.Allen@state.or.us

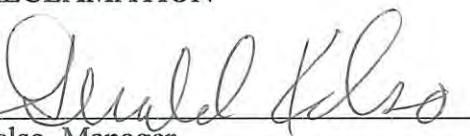
8. General Provisions

- a. Reclamation’s responsibility for ensuring completion of consultation with SHPO for future undertakings identified in Section 3.B. is limited only to those that qualify as Federal undertakings. Projects identified in Section 3.B. that do not qualify as Federal undertakings are subject to review by the SHPO under ORS 358.653, and the responsibility for consultation and completion will rest with the District.
- b. Completion of the mitigation stipulations will be considered to satisfy the requirements for mitigation of adverse effects for a previous undertaking (Pilot Butte Canal Juniper Ridge Piping Project Phase 2 [SHPO Case# 10-1873]) that has not yet been mitigated as of the date of the final signature on this MOA.
- c. This MOA is neither a fiscal nor a funds-obligating document for Reclamation. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties of this MOA will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This MOA does not provide such authority.
- d. Nothing herein shall be construed to obligate Reclamation to expend or involve the United States of America in any contract or other obligation for the future payment of money in excess of the appropriations authorized by law and administratively allocated for the purposes and projects contemplated hereunder.
- e. No member of or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of the MOA or to any benefit that may arise out of it.
- f. Any information furnished to Reclamation, under this MOA, is subject to the Freedom of Information Act (5 U.S.C. 552).
- g. All parties to this MOA agree to comply with all Federal statutes relating to nondiscrimination, including but not limited to: Title VII of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, religion, sex, or national origin; Title IX of the Education amendments of 1972, as amended, which prohibits discrimination on the basis of sex; the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990, as amended, which prohibit discrimination on the basis of disability; the Age Discrimination in Employment Act of 1967, as amended, which prohibits discrimination based on age against those who are at least 40 years of age; and the Equal Pay Act of 1963.

9. Signatures


Reclamation, SHPO and the District will abide by the terms and provisions expressed or referenced herein.

BUREAU OF RECLAMATION

by: 
Gerry Kelso, Manager
Columbia-Cascades Area Office

DATE: 2/12/14

OREGON STATE HISTORIC PRESERVATION OFFICE

BY: 

Roger Roper
Deputy State Historic Preservation Officer

DATE: 2-25-14

CENTRAL OREGON IRRIGATION DISTRICT

BY: 

Steven Johnson
Secretary-Manager

DATE: 14 Feb. 2014

~ End of Document ~

COC SIGNIFICANT MAINTENANCE/EVENTS, WARD RD. to GOSNEY RD.

The 3.4 mile stretch of the Central Oregon Canal (COC) between Ward and Gosney Roads is a high fill section of open canal that was constructed some 115 years ago. This section has generally required more maintenance and reconstruction activities than any other section of the COC, due to the geography and topography. This report catalogues recent major reconstruction and emergency maintenance activities in the past 25 years. While COID does not have institutional recollection or records for maintenance and reconstruction activities between the original construction and the 1990s, we believe that the below report is representative of efforts that would have been necessary throughout the history of this canal due to the difficulty posed by the lava rock in this area.

The native silt type soil available on site was used to construct the canal along a sloped hill side along most of this stretch. The canal sits at an average of 20 feet above the adjacent lands on the low side of the system. At Ward Road the canal water flow is approximately 400 cubic feet per second (cfs). At Gosney Road the canal flow is reduced to approximately 335 cfs due to diversions feeding into other laterals and deliveries within that 3.4 mile stretch. This segment of canal is monitored daily by the ditch rider during Irrigation Season (April through October), and during COID's off season one-week long livestock water runs (normally scheduled for November, January, February, March, weather and other factors permitting).

Included for use with the bullet point notes below is an aerial map pinpointing numbered locations (1 through 9) along this stretch of canal where significant reconstruction, maintenance work, events, and/or additional routine maintenance work has occurred. Photographs of locations 1; 2; 3; 4 (included in Siemens geologist report); 5; 7; 8; and 9 are also included.

- **Location 1:** Burrowing animal (marmot) damage resulted in a minor breach several years ago in the high fill embankment on the canal road side. Per the ditch rider, an area of land approximately 150 feet by 150 feet was submerged under about 1 foot of water until the repair could be made. If not attended to immediately, a major breach of the canal could have potentially occurred, and potentially spilling approximately 200 cubic feet per second (90,000 gallons per minute) of water onto the adjacent land on the lower side of the high fill embankment. The repair consisted of using a track excavator to excavate down approximately 4 feet in the center of the embankment canal road for a length of about 20 feet to find the burrow hole. Approximately 10 cubic yards of clay was mixed with the existing excavated soil to produce a suitable backfill material. This material was compacted into the hole to seal off the burrow hole water flow. (Note: see location 1 site photograph)¹
- **Location 2:** Embankment erosion had gradually occurred overtime in a bend in the canal on the south (off-road) side of the channel causing adjacent landowners on the south side some concern in 2007/2008. COID contracted with Geologist Andy Siemens (Siemens & Associates) to evaluate the land owner concerns. Per his recommendation, rip-rap (rock armoring) was placed along the south side embankment to help prevent further erosion. Approximately 200 lineal

¹ This emergency repair required alteration to the exterior of the structure, and so would have posed a significant challenge to COID and safety risk to adjacent properties if listed as a Goal 5 historic resource such that reconstruction had first required obtaining a permit from the Deschutes Historic Landmark Commission that meets only quarterly.

feet of the embankment was armored. Note: see enclosed location 2 Siemens & Associates report dated April 11, 2008, and location 2 site photograph) The addition of rip-rap in this section substantially altered the appearance of the canal.

- **Location 3:** During the 2007 off season COID performed some rock breaking work at this location to reduce the height of a basalt rock outcropping in the canal channel. This allowed for more free flow of the water in the channel, and reduced the risk of ice damming on the rock outcropping and the ditch rider walk bridge crossing the canal during the off season livestock water runs occurring during frigid conditions. The size of the rock outcropping removed was approximately 15 feet long, by 20 feet wide, by 2 feet high. Some minimal rock breaking occurred immediately downstream of the walk bridge as well removing some rock points allowing for less obstruction and improved flow. The busted rock was used to add more armoring to the canal embankment adjacent to the rock outcropping removal work. (Note: see location 3 site photograph). Again, this effort required substantial modification to the exterior of the canal structure.
- **Location 4:** During the January 2010 off season livestock water run (approximately 200 cubic feet per second), the canal floor and a portion of the canal embankment on both sides of the channel collapsed and exposed large underground fissures and cavern type geology extending well into the embankments. A segment of the canal road was also swallowed by the collapse. Geologist Andy Siemens (Siemens & Associates) was contracted to evaluate the collapse and to design an appropriate repair. JAL Construction was contracted to perform the repair. See enclosed Siemens & Associates Reports with photographs dated January 29, January 21, and April 5, 2010, and related invoices. (Additional note: Interestingly, a landowner's pond located approximately one-half mile due north of the COC collapse had twice collapsed and been repaired during the 2009 irrigation season. That collapse revealed similar underground characteristics as the canal collapse event).
- **Location 5:** "Burt's Chute" is a 100 foot long narrow concrete channel constructed within the canal channel some decades ago, likely built to span the canal over a high loss area, or sink hole, due to fissures in the basalt. The long wide ponding/stilling pool below Burt's Chute required embankment rip-rapping (armoring) previously to lessen embankment erosion caused by the force of the swirling water after it exits the chute. Both sides of the channel were rock armored for approximately 200 feet in length. This location will require additional armoring reinforcement repairs in the near future. Some rock armoring has fallen away from the embankment and will need to be reset. Additional rock may need to be imported to improve the existing armoring. (Note: see photographs of site)
- **Location 6:** According to the ditch rider, a serious breach had occurred at this location during the 1993 irrigation season as a result of burrowing animal damage. He recalls being told that the breach was approximately 15 feet wide by 3 feet deep, by 30 feet in length, spilling approximately 50 cubic feet per second of water (about 22,500 gallons per minute). Water was flowing across the bare property below the high fill embankment between the canal and Bear Creek Road and the county road bar ditch was filled with water for several hundred feet in each direction with some water reaching the height of the asphalt road surface and crossing over the road. Per the dimensions provided by the ditch rider, it would have taken a minimum of 70 cubic yards of clay-soil mix to backfill the breach and make the repair. (Note: No photograph)
- **Location 7:** On July 8, 2017, a burrowing animal (gopher) caused a leak at the base of the high fill slope into a resident's back yard. This was reported by the landowner to COID's after-hours/weekend call service. Due to its hidden location (back yard, behind a fence and at the base of a tree), COID's daily monitoring would not have observed the leak. COID responded promptly and performed the repair. The repair was made by excavating down 3 feet deep for 20 feet in length in the center of the embankment canal road until encountering the burrow hole water

flow. 5 cubic yards of clay was mixed with the excavated soil to make the repair. (Note: See photograph Location 7)..

- **Location 8:** “Sterns Waste” was constructed several decades ago as an emergency canal spill should a catastrophic event occur downstream of location 8 that required the canal flow be rapidly reduced and/or eliminated. At this location, there are three 4 foot diameter “Waterman” wheel type headgates for managing an emergency canal spill. The last time the gates were used was in January of 2013 during an off season livestock water run. The temperatures dropped dramatically during the night within a few hours resulting in ice dams forming in the main canal and laterals in the Powell Butte area. The COC head works gates in Bend were closed immediately and both the Sterns Waste gates, and the Dry Canyon spill gates (located downstream adjacent to Brasada Ranch), were opened to rapidly reduce the water flow, helping to prevent further overtopping of the COC embankment and flooding of the Powell Butte Highway. Simultaneously, the COID crew worked through the night with heavy equipment breaking ice dams in an attempt to keep water flowing and in the canal. The Crook County Road Department assisted with traffic control and sanding during the hours that freezing water was on present on the Powell Butte Highway. Sterns Waste is essential to COID’s emergency response needs. (Note: see location 8 photographs)
- **Location 9:** Historically this location, about 500 feet upstream of Gosney Road, is well known for canal embankment seepage. In July 2015, the land owner owning property under the high fill embankment reported to COID that they perceived the amount of seepage had increased compared to previous years. COID promptly responded and found no signs of burrowing animal activity. COID more closely monitored this location and contracted with the Wallace Group to perform a geotechnical evaluation. See the enclosed Wallace Group report dated July 21, 2015. COID’s further monitoring observed that the seepage lessened throughout the remainder of the 2015 irrigation season and the standing water dried up significantly. COID monitoring this 2017 irrigation season observed some increased seepage but not to the degree first observed in 2015. Note: see location 9 site photograph)
- **Other:** Throughout this entire 3.4 mile stretch of main canal (Ward Road to Gosney Road) silt bar accumulations must be routinely removed every 3 – 5 years using heavy equipment (dozers, track excavators, dump trucks). As the work occurs, several hundreds of cubic yards of silt spoils are placed along segments of the embankment where extra widening is a benefit to further reinforce the high fills, or stock piled to be exported and used as bedding/backfill material on COID construction/improvement projects at other locations.

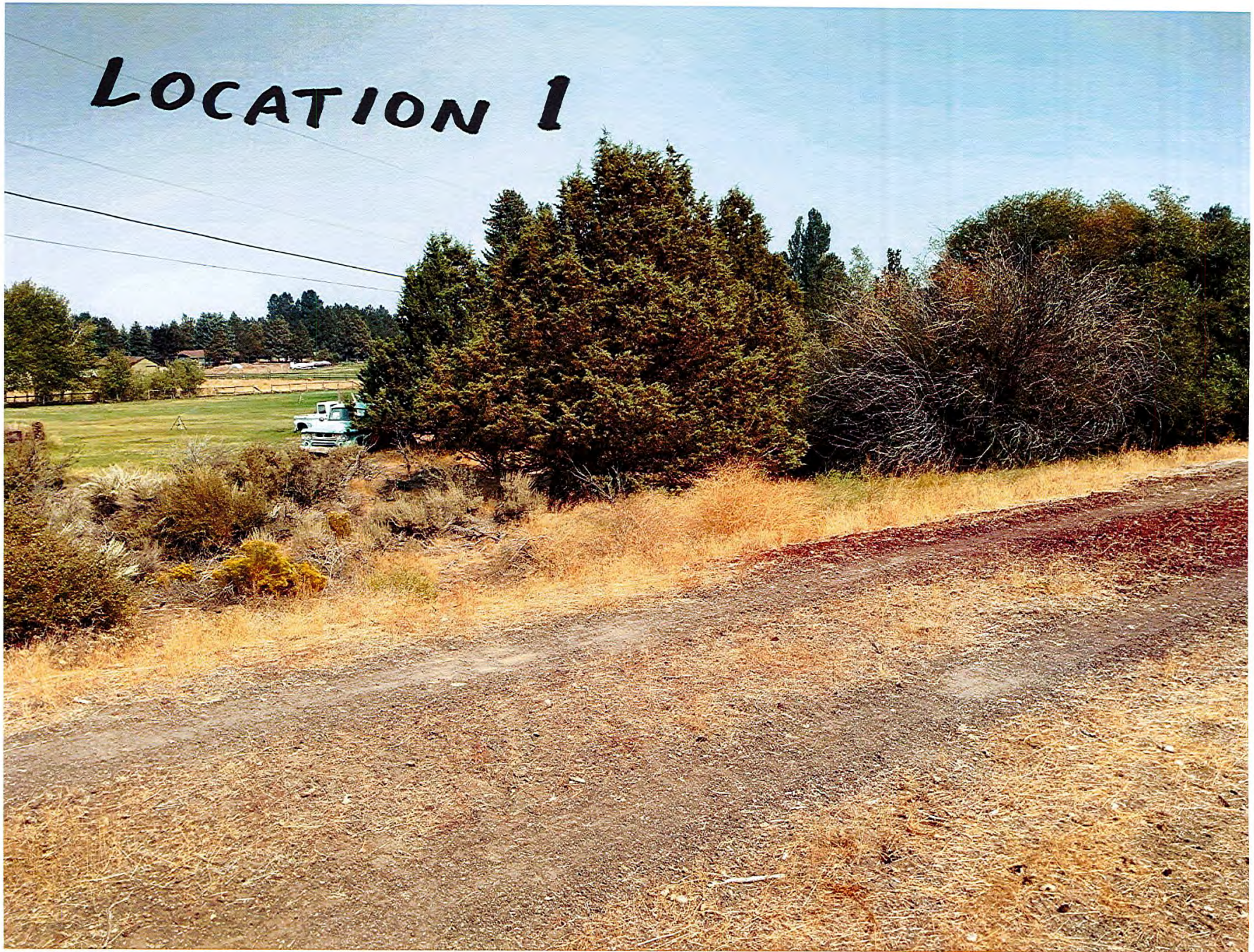


COG SIGNIFICANT MAINTENANCE/EVENTS, WARD ROAD TO GOSNEY ROAD



NOTE: MAINTENANCE AREAS ARE NOT TO SCALE

LOCATION 1



LOCATION 2

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW lake Court
Redmond, Oregon 97756
Attention: Larry Roofener

April 11, 2008
Project No. 1081018

Project: Central Oregon Canal
Bend, Oregon

Subject: Geotechnical Observations

Dear Larry,

We met you the afternoon of April 3, 2008 to review a select portion of the canal for the purpose of offering our opinion concerning bank stability. The area that we reviewed is along the right bank a short distance downstream from Ward Road adjacent the property owned by Rudy & Margaret Molzan and James Ristoff (tax lots TRS 18-12-01, TL 2300 and TRS 18-12-01 TL 2400, respectively).

At the time of our visit the canal was essentially dry and the areas of interest were readily available for review. The normal high-water mark was easily discerned from mineral precipitate on both large and small rock embedded within the canal bank. In this area the canal appears to offer a moderate gradient such that flow velocity is likely above average. The canal flows east through most of the Molzan property and then bends to the northeast. Canal depth appears to be on the order of 6 to 8 feet. The area hosts thin soils underlain by basalt – basalt is exposed throughout the canal bottom and appears fresh and clean with very little sand or silt deposition supporting our conclusion of moderate velocity flow. The canal is mostly in cut although low soil berms are built up on both sides.

We observed several areas along the Molzan property where it is our opinion that light erosion has promoted the upper foot or so of the canal bank to slump down about that same distance. These are fairly minor disturbances likely promoted by the undermining of soils near the high-water line held together by vegetation that slowly degraded and finally became too weak to support the weight in a saturated condition. These types of slumps often occur shortly following a rapid drawdown of the canal as the seepage forces toward the canal promote movement of weakened embankment. We did not observe indication of a larger instability such as a deep seated bank failure or reason to suspect that such a situation is imminent. Further, it is our view that the condition is one that has been developing for a long time and we do not assign a great urgency to the repair as it is our view that

Siemens & Associates
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19134 River Woods Drive, 97702

Bend, Oregon
fax: 503-296-2271

even if uncorrected future years are likely to see a similar slow degradation of the bank rather than a rapid or catastrophic failure. However, it is also our opinion that stabilization efforts should be performed and the sooner, the better.

During our visit, we pointed out the areas where we think stabilization would be beneficial in the form of a simple armoring from just below the high-water up to the top of the embankment. Such protection can easily be established by excavating a solid bench into the existing riprap to form the foundation for additional riprap placement. Care should be observed when placing the new riprap to assure that it is firmly seated on the slope and well supported at its base. The riprap sizes can range from the largest rocks available to cobble sized rock with the smaller constituents best used to chink the void space between the larger rocks. Suitable riprap materials were stockpiled on site and can be gathered from the canal bottom and other areas where loose rock occurs.

At some time we suggest improving the bank armor at the northeast bend. While currently offering reasonably stable banks the soils along the bend can be expected to slowly degrade if not maintained by suitable riprap or other means of slowing erosion.

In areas such as these, it is our opinion that COID would benefit from establishing control points on each canal side that can be used to monitor the canal cross-section with time. This will help determine the effectiveness your stabilization efforts and serve as a record of success or a basis to justify additional effort. Methodology of such monitoring was discussed in the field.

This report presents our professional opinion based upon a quick site visit, discussion and visual observation of surface conditions. The conclusions generated are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar work – we make no other warranty express or implied.

We appreciate the opportunity to provide this review and would be delighted to expand any of the topics as necessary. If you have any questions, just ask.

Respectfully submitted,
Siemens & Associates

J. Andrew Siemens, P.E., G.E.
Renews 6/30/2008
Addressee: 3 hard copy

LOCATION 2



LOCATION 3



LOCATION 4

SIEMENS & ASSOCIATES

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

January 21, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance

Gentlemen,

This letter presents our findings, conclusions and discussion of repair options to return service through a short section of canal that recently collapsed during a winter stock run. The affected area is located about $\frac{3}{4}$ miles east of Ward Road and $\frac{1}{4}$ mile south of Bear Creek Road.

We have explored the canal collapse through non-destructive means including basic field observation, geophysical methods using DC electrical imaging combined with limited research into readily available geologic information bearing on the area. The geology of the zone is dominated by a thin layer of silty sand soil placed by wind and water that conceals layers of basalt related to the Newberry volcanic center to the distant south. The basalt offers highly variable characteristics in terms of degree of fracturing, jointing and inflation and is disrupted by numerous faults that typically follow a northwest-southeast alignment. In addition, the area is known to host many air-filled lava tube caves some identified where the roof structure has collapsed due to natural causes, others remain concealed below thin layers of basalt.



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Bend, Oregon
fax: 503-296-2271



The canal likely crosses numerous lava tube caves and faults as well as other anomalous zones such as boundaries between flow lobes and inflation features – most being harmless. Although we are not 100 % certain for reasons discussed later, we have not discovered any compelling reason to think that an air-filled lava tube collapsed. Rather, our findings suggest a less dramatic geologic anomaly probably associated with a heavily fractured, porous and inflated lava system that inflated differentially during its emplacement and the depressed surface sequentially filled with soil prior to the original canal construction. This depression includes an indurated (hardened) surface layer resembling volcanic tuff that provided reasonably good resistance to erosion over the years.

Cracks and other disconformities in this hardened surface layer along with clefts adjacent the more resistant basalt allowed seepage and subterranean erosion of the less competent underlying soil that was gradually flushed into large cracks and fissures of the supporting basalt below. The process has been ongoing for many years and although the collapse may have been precipitated by recent construction activity that included rock chipping in the area, the bridged erosion voids would have eventually failed anyway.

In our view, a variety of options are available to restore service with the primary objective being the sealing of subterranean voids such that future seepage energy is reduced to a degree that will not erode soil from either the canal bottom or embankments. This can be done effectively by building a graded filter from the bottom of the



cleaned out collapsed zone that is integrated with the intact margins of the existing canal. Physical exploration to determine the extents of the repair should be done as loose debris is removed. We anticipate that much of the spoil will be suitable for reuse in the reconstruction.



The completed surface through the collapsed zone could be finished with a lean concrete (the Cadillac repair) or we think that a less expensive soil floor and embankment armored with rip rap would also be acceptable providing that the flow is not so turbulent as to promote new erosion. Based on our findings, we estimate that a length of canal on the order of 100 feet will require reconstruction.

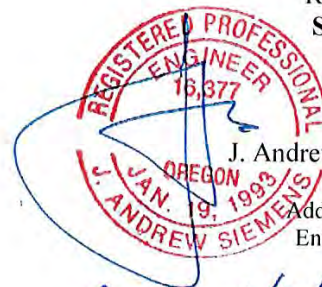
A rough Site Plan is attached to this letter along with the interpretations from two electrical imaging lines that extend along the top of each embankment. Although we ran a third electrical imaging line down the center of the canal, the effort was unsuccessful in developing a robust description due to poor electrical contact in the rock and failure to inject high current levels. Therefore, the results from that survey are not presented. We have conducted many similar surveys with electrodes set directly in rock and this is the first time that the method failed. This promotes our concern that some unusual (and undiscovered) geologic condition prevails to influence the effectiveness of the method through the bottom of the canal. As a result, we recommend conducting the clean out with caution to potential unidentified geologic hazard.



This report presents our professional opinion based upon geophysical measurement and interpretation presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar work in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct this exploration and look forward to assisting you work out an effective repair. If you have any questions, just ask.

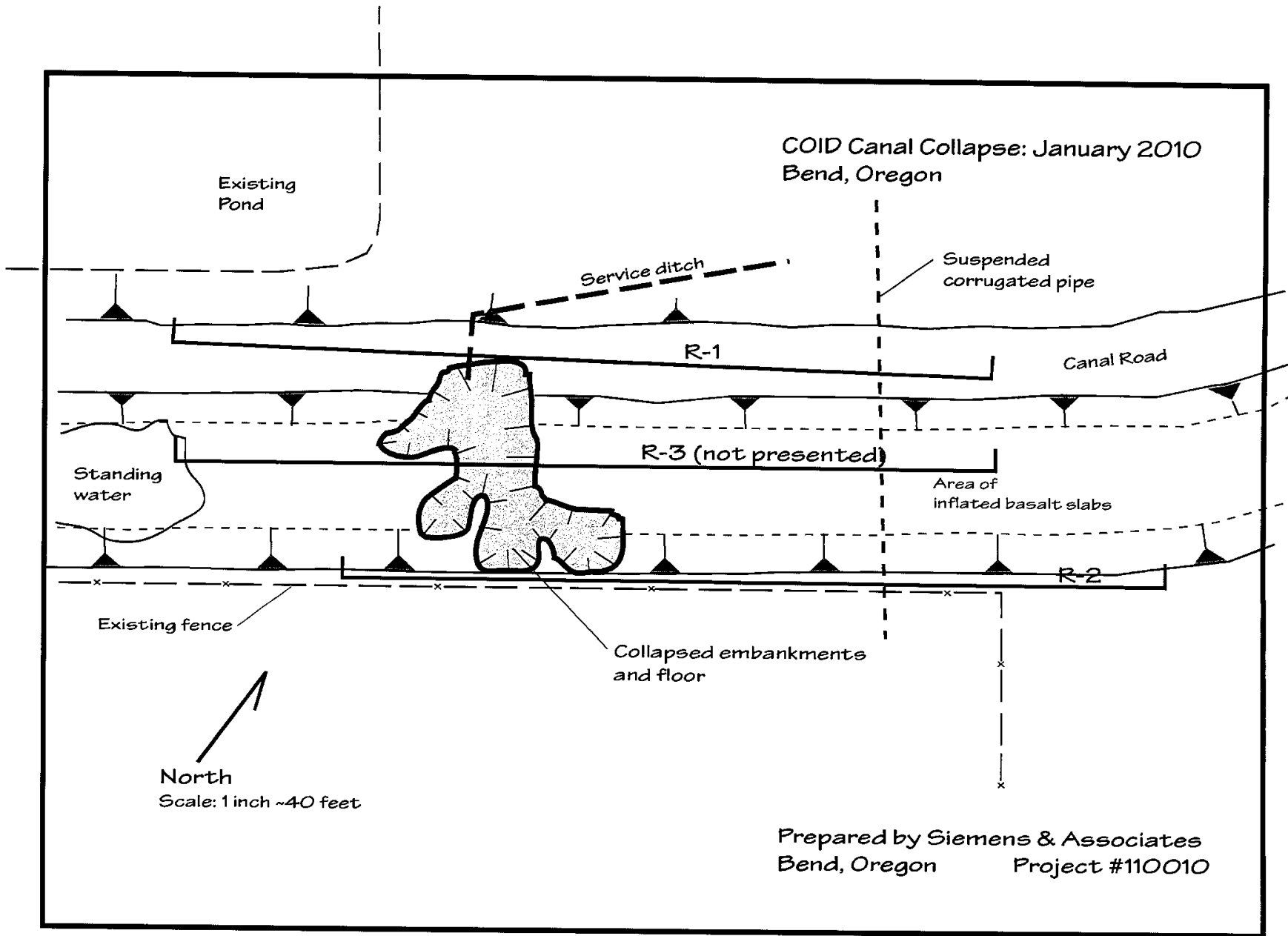
Respectfully submitted,
Siemens & Associates



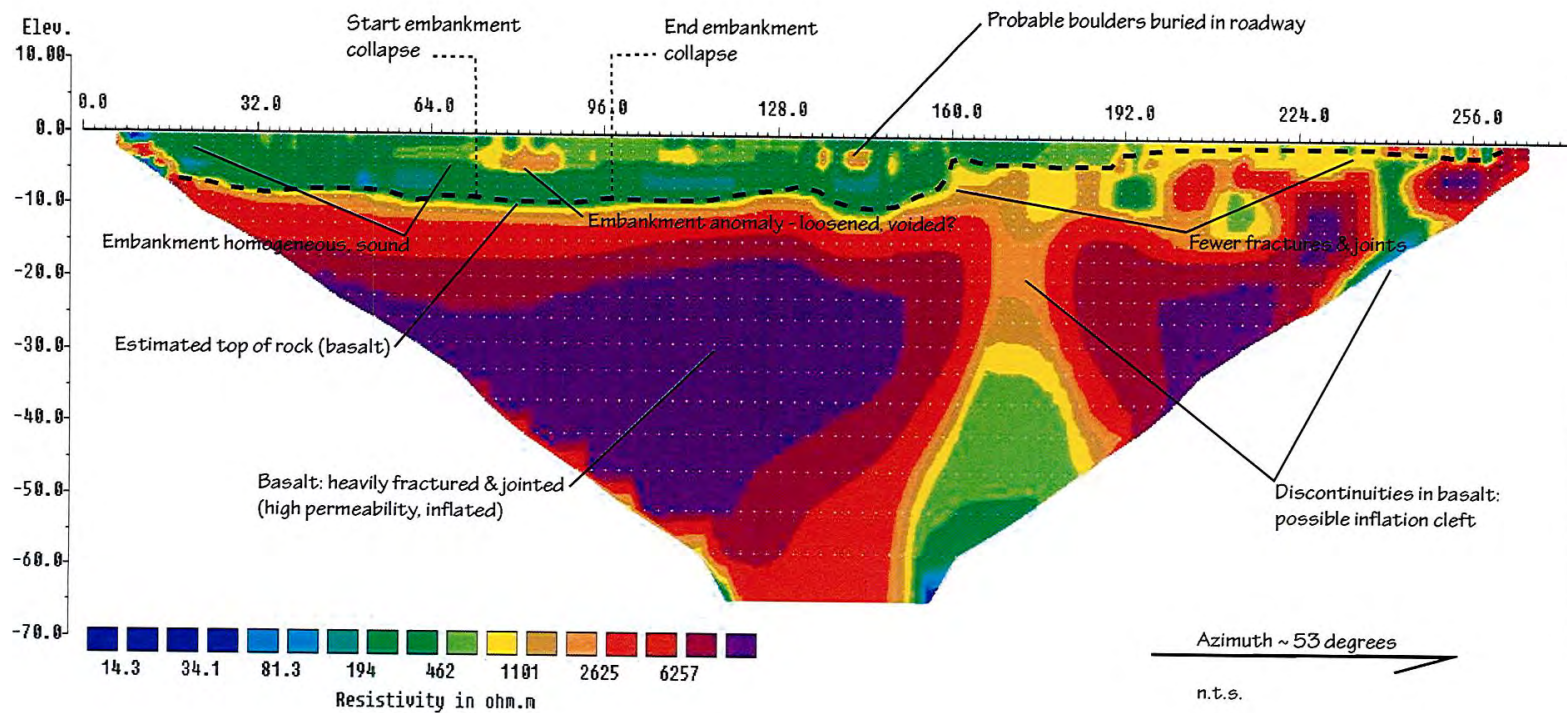
J. Andrew Siemens, P.E., G.E.

Addressee: 1 electronic
Enclosures: Site Plan,
R-1, R-2

Renews 4/30/2010

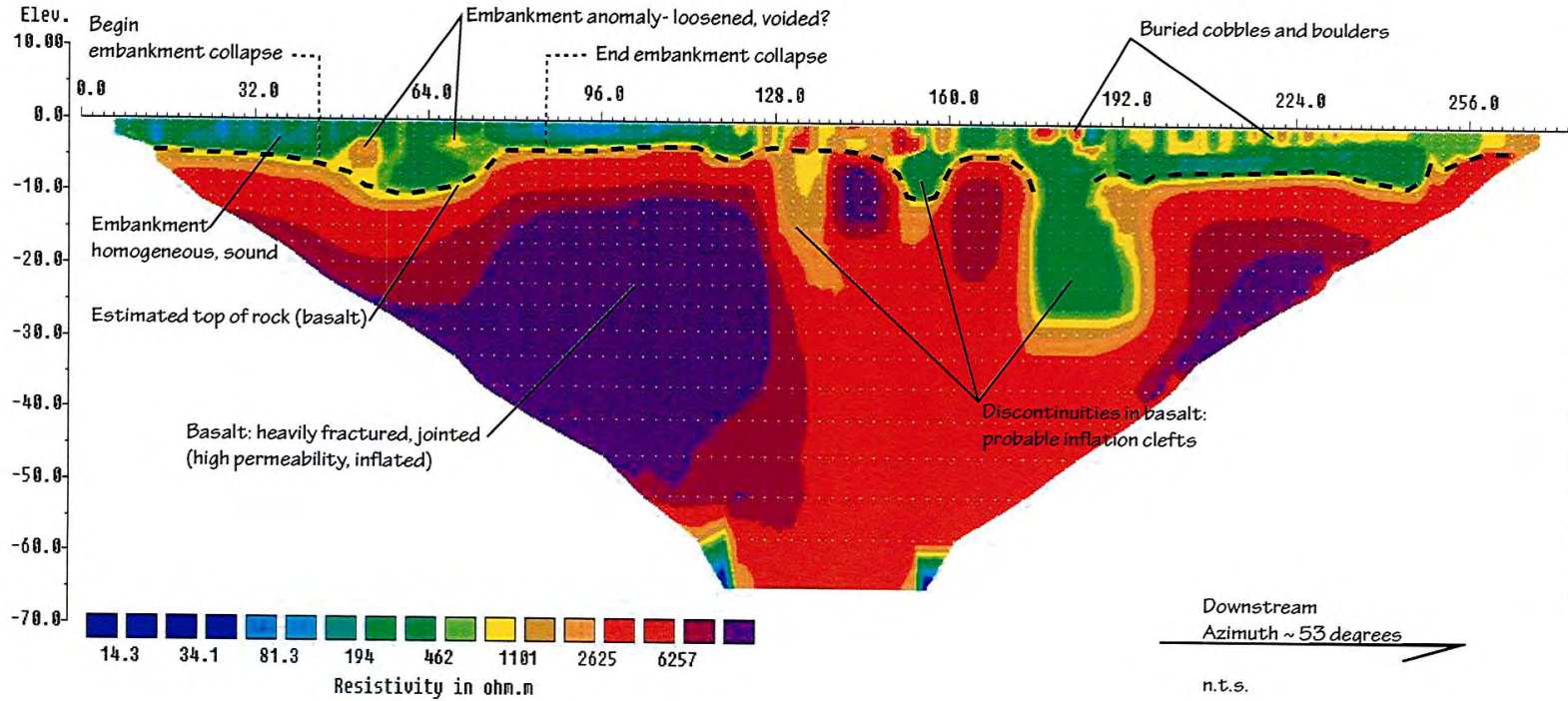


Electrical Resistivity Tomography: R-1
Left embankment: 56 electrodes on 5 foot spacing, Dipole-Dipole array



Prepared by: Siemens & Associates
Bend, Oregon

Electrical Resistivity Tomography: R-2
Right embankment: 56 electrodes on 5 foot spacing, Dipole-Dipole array



Prepared by: Siemens & Associates
Bend, Oregon

LOCATION 4

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

January 29, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance During Repair

Gentlemen,

Since our meeting at your office last Friday, January 22, 2010 we have been assisting with the repair effort that is currently underway. This letter is prepared as an update concerning findings and repair strategy.

The effort has progressed essentially as envisioned during our meeting beginning with an exploratory effort that included verification of collapse boundaries and probable cause. In our view, the conclusion that the collapse is a result of subterranean erosion of loose soils into underlying basalt cracks and fissures (clefs) remains to be the most likely cause of the collapse.

A recent snow fall promoted an approximate one day delay while the temperatures climbed and the snow was removed by spraying with water. The effort was very successful and as a result, the collapse soils that are removed will be free of snow and suitable for reuse.



A significant volume of very loose and erosion vulnerable soil is being removed from the collapse zone resulting in excavation depth through a small area on the left side that was about 13 feet deep as measured from the canal bottom. Although difficult to

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Bend, Oregon
fax: 503-296-2271

judge, we estimate that the average excavation depth was probably on the order of about 6 to 8 feet from canal bottom. Total volume to be restored is expected to be on the order of 1000 to 1200 cubic yards, a large portion of which will be made up from excavation spoils. The remainder will be import mostly from JAL's West Butte Pit near Millican, Oregon.



We have visited and sampled materials from West Butte Pit and based on our data, visual review, and with test results provided by JAL, we judge that suitable materials are available to complete the repair. An additional import source for clayey material has yet to be defined for the recommended low permeability zone.

Soils and collapse debris are being removed to expose either a rock subgrade as judged from bucket refusal or to an apparently firm combination of rock and soil in apparently undisturbed condition. From this point, we recommend proceeding with a sequence of repair tasks as follows:

1. Continue loose soil removal to expose firm subgrade composed of either rock or competent soil.
2. Moisture condition the thin layer of soil remaining at the subgrade level while washing soil into suspect areas likely to host large cracks and fissures.
3. Hoe-pack subgrade.
4. Place primary protective filter: Use 3 inch minus basalt from stockpile at JAL's West Butte Pit, Millican, Oregon. This layer should be distributed to achieve an approximate 2 foot thickness (or greater) over the entirety of the subgrade. The primary filter should be nestled into place with vibratory energy delivered by a hoe-pack.
5. Place secondary protective filter: use ODOT ¾ inch minus crushed aggregate – acceptable material includes JAL's stockpile at West Butte Pit. The thickness of the secondary filter should be at least 1 foot and the layer should be moisture conditioned and heavily compacted using a hoe-pack.
6. Restore left and right embankments – the left embankment (looking downstream) should be

rebuilt using the reject fines tested from West Butte Pit. Select spoils are acceptable for restoring the right embankment. Restoration soils should be moisture conditioned, placed in thin, horizontal lifts (about 1 foot) and heavily compacted while integrating the contact with the existing embankment. The embankment lines should consider the volume necessary for clay and rip rap finishes.

7. Place low permeability (clayey) layer over top of secondary filter layer and up the restored embankment slopes approximately 1 foot above high water line. Acceptable source to be researched by contractor (JAL) and approved by geotechnical engineer (Siemens). Low permeability layer should be 1 foot thick or greater and heavily compacted.
8. Refill remaining area using onsite spoils separating boulders as is reasonably practical for later use as onsite rip rap. Refilling should commence to within about 1 ½ foot of finished canal grade.
9. Restore rip rap protection throughout repaired zone and integrate with undisturbed areas.
10. Rebuild flow gate and check structure as directed by COID at left embankment

This report presents our professional opinion based upon visual review of the conditions encountered combined with previous geophysical measurement and interpretation. The conclusions and recommendations are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar repair in Central Oregon at this time – we make no other warranty express or implied.

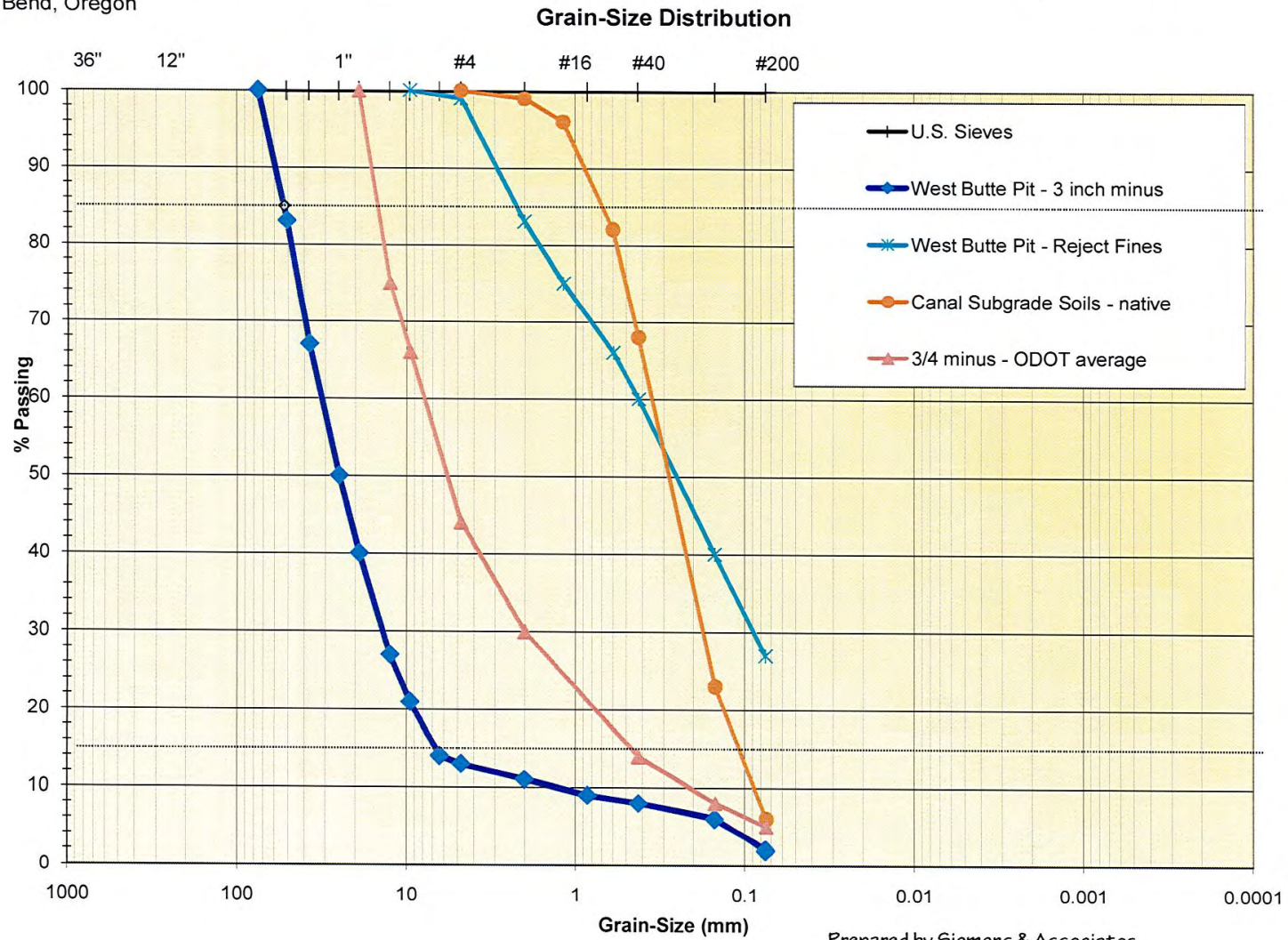
We appreciate the opportunity to conduct be of service and look forward to assisting you work out an effective repair. If you have any questions, just ask.



Respectfully submitted,
Siemens & Associates

J. Andrew Siemens, P.E., G.E.

Addressee: 1 electronic
Enclosures: Grain-Size Distribution Curves



Prepared by Siemens & Associates
Bend, Oregon

LOCATION 4

S I E M E N S & A S S O C I A T E S

Central Oregon Irrigation District
1055 SW Lake Court
Redmond, Oregon 97756
Attention: Steve Johnson, Larry Roofener

April 5, 2010
Project No. 1101010

Project: Central Oregon Canal: Collapse
Bend, Oregon

Subject: Geotechnical Reconnaissance – Final Observations

Gentlemen,

We have assisted your contractor (JAL Construction, Inc.) with the repair process which has taken place over the past few months. Our observations support a conclusion that the effort has resulted in an effective and efficient restoration likely to offer many years of service.

The conditions encountered as the work progressed were consistent with those anticipated as a result of the original reconnaissance and the repair process itself advanced in general accordance with our recommendations (described in letter to COID dated 1-29-'10) with a few modifications. It is our opinion that the contractor performed the work diligently to complete the task on time for a reasonable cost.

Before and after photographs:



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Bend, Oregon
fax: 503-296-2271

The repair included removal of erodible soils through the affected zone, replacement of the materials with a graded filter composed of successively finer layers from the bottom up all capped with a layer of basalt cobble and boulder rip rap. In addition, both canal banks were reconstructed using fine grained spoils from onsite excavation or from a silty import. Following completion of the repair, small erosion disturbance developed where the flow swept around the end of the check structure within the repaired area. We suspect that the current exposed an area where the rip rap was not as thick as planned (18 inches or more). This situation was addressed by excavation, placement of geotextile and thicker rip rap and then extending the check all the way across the canal. Finally, the check structure was added additional security by concrete slurry. The fix appears to have corrected the weakness following observations from a subsequent stock run.



Based on our exploration and observations through the reconstruction process, it is our opinion that the District should anticipate some minor adjustments in surfaces as flow through the repaired area identifies minor deficiencies; however, we are confident that the deep seated erosion potential has

been fully addressed such that the opportunity for future development of large scale cavities and subsequent canal collapse has been effectively blocked through this interval.

This report presents our professional opinion based upon visual review of the conditions encountered combined with previous geophysical measurement and interpretation. The conclusions and recommendations are presented as an endeavor to conform to the standard of practice currently employed by area geoprofessionals conducting similar repair in Central Oregon at this time – we make no other warranty express or implied.

We appreciate the opportunity to conduct be of service and look forward to a long and prosperous flow through this section of canal. If you have any questions, just ask.

Respectfully submitted,
Siemens & Associates

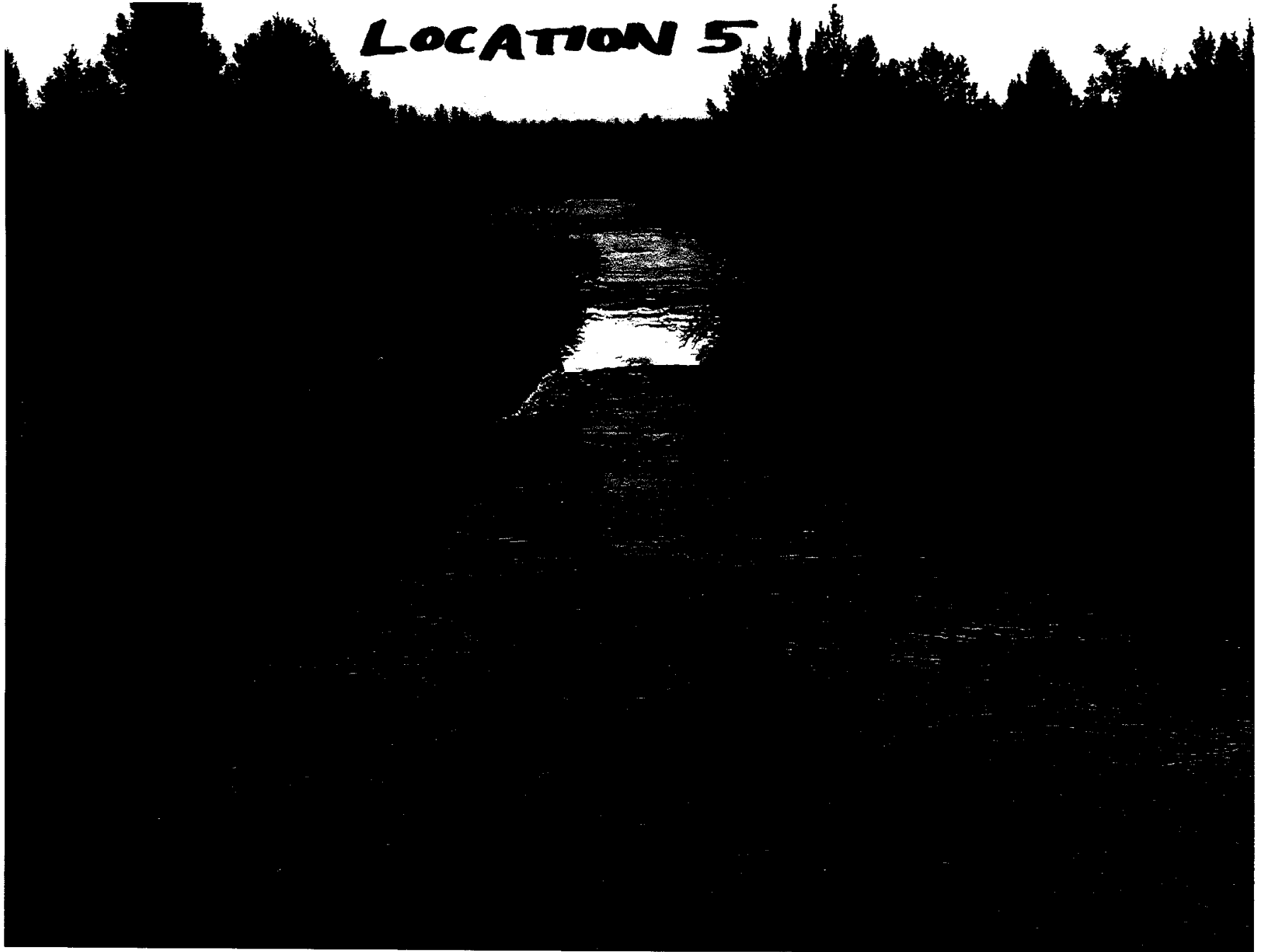


J. Andrew Siemens, P.E., G.E.

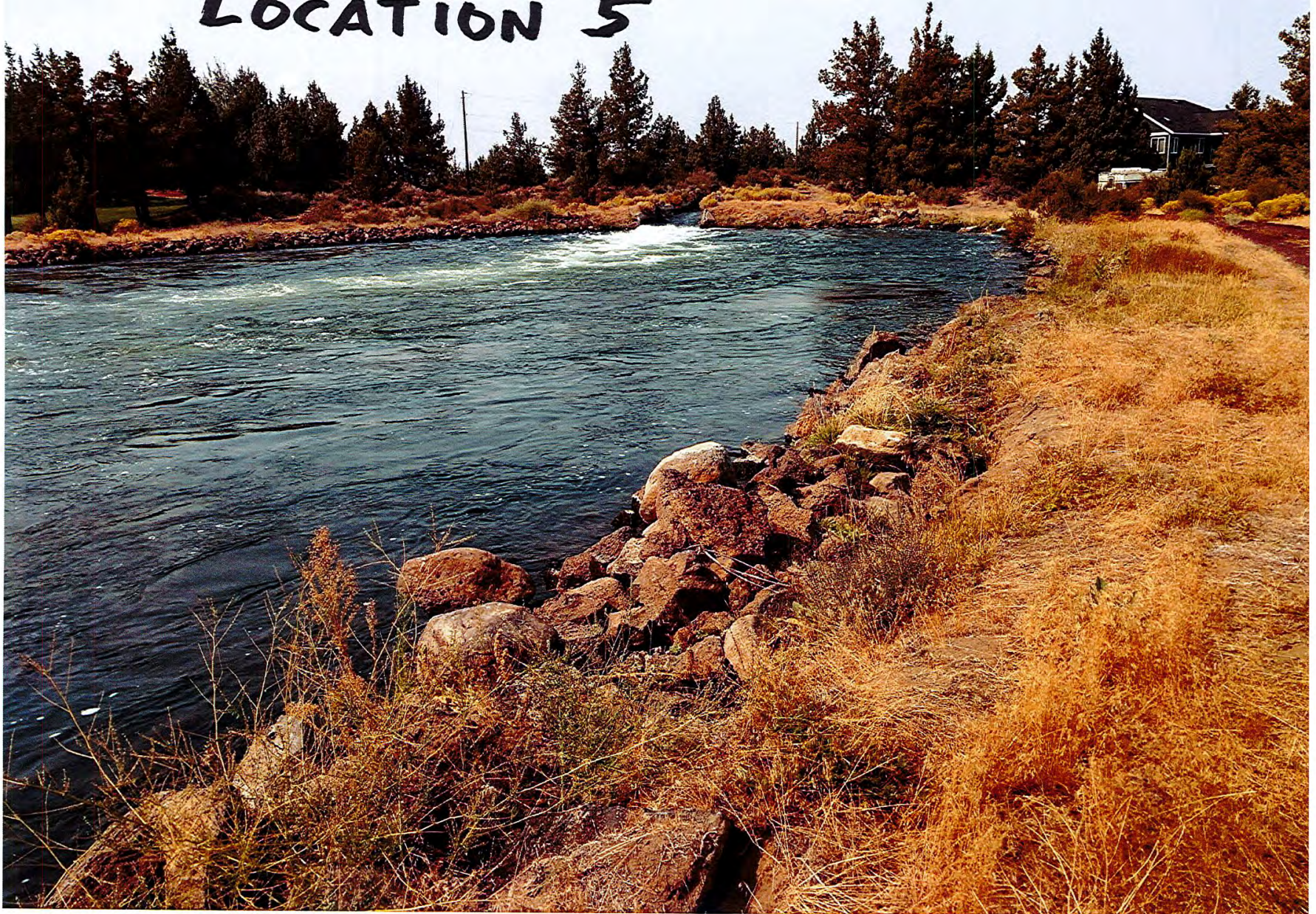
Addressee: 1 electronic

Renews 4/30/2010

LOCATION 5



LOCATION 5





LOCATION 8





LOCATION 8



LOCATION 9

LarryRoofener

From: Mark Herbert <mherbert@wallacegroup-inc.com>
Sent: Tuesday, July 21, 2015 4:58 PM
To: Larry Roofener
Subject: Central Oregon Canal Report
Attachments: TWG15L033 Central Oregon Canal.pdf

Hi Larry:

Attached is our Geotechnical Reconnaissance Report for the Central Oregon Canal section we observed near Gosney Lane.

Thanks for providing this opportunity to help COID with its risk management effort on this section. Would you please have Craig review and sign our services agreement, or send us a different form of agreement if you prefer.

Please call if you have questions.

Best regards,

Mark

Mark V. Herbert, PE, GE
Principal Geotechnical Engineer

The Wallace Group, Inc.

62915 NE 18th St, Ste 1

Bend, OR 97701

P: 541.382.4707

F: 541.383.8118

C: 541.410.9800

mherbert@wallacegroup-inc.com



TECHNICAL MEMORANDUM

Date: July 21, 2015

To: Mr. Larry Roofener, Operations Manager
Central Oregon Irrigation District
1055 SW Lake Road
Redmond, OR 97756

From: Mark V. Herbert, P.E., G.E., Principal Geotechnical Engineer

Subject: **Geotechnical Reconnaissance Report
Central Oregon Canal, Upstream from Gosney Lane
Bend, Oregon**

Project No. 10574, Task 1



Background

Wallace Group, Inc. (Wallace Group) was retained by the Central Oregon Irrigation District (COID) to conduct a geotechnical reconnaissance of the Central Oregon Canal embankment, located approximately 500 feet upstream of the canal's intersection with Gosney Lane, about five miles east of Bend. We understand the canal embankment in this reach has leaked continually during irrigation season for several years, however, the seepage rate reportedly has increased recently. A section of embankment has reportedly slumped, indicating some movement of the embankment has occurred. The purpose of our reconnaissance was to evaluate the canal embankment to assist COID in both temporary monitoring and long-term repair efforts. The canal in this reach was formerly a raised flume, which was later replaced with a raised embankment.

A summary of the conditions encountered during our reconnaissance and preliminary recommendations are presented below.

OBSERVATIONS

The canal embankment ranges from about 6 to 12 feet above the surrounding topography. Embankment construction records are not known to exist, however, most regional canals were built with basalt rock rubble produced during canal excavation. Some native soil was likely blended with the rock rubble, otherwise, seepage would be

excessive. We observed seepage at several locations about 5 to 10 feet below the adjacent ditch rider road. Several, shallow Tee-handle probes revealed up to three feet of soft, saturated soils overlying what is likely basalt bedrock. A shallow pool of water was observed on an adjacent irrigation pasture, about 25 feet north of the embankment toe. The property owner reported the pool has existed in past years, but the volume of ponded water is greater this year. We did not observe flowing water, however, standing water was observed along the embankment slope. The water also relatively appeared clear, indicating erosion of fine soil particles was not significant.

Along the canal bank where the ponded water is located, we observed a section of embankment that appeared to have slumped about 1½ feet vertically. The soils below the slump are saturated and very soft. The COID ditch rider reported this earthen slump is relatively recent. The ditch rider road along this section appears that it may also be settling, although the magnitude may only be a few inches.

The canal embankment and bottom in this section appear to be of similar, basaltic boulder construction, so it is likely that seepage is occurring laterally through the northern embankment and through the canal bottom. COID reported that seepage has not been observed on the south side of the canal embankment, even though it is also raised several feet above the surrounding terrain.

CONCLUSIONS AND RECOMMENDATIONS

Based on our observations, it appears that failure of the northern canal embankment in the area observed is not imminent. Therefore, repair efforts can be completed when the current irrigation season ends. However, if seepage increases or if flowing water is observed on the canal bank, some short-term remedial measures may be required. We assume the seepage area will be monitored daily or at least weekly by the ditch rider. Evidence of increased seepage or fresh embankment sloughing should be reported to Wallace Group immediately.

We also recommend 6 to 8 survey hubs be placed on the ditch rider road and northern embankment in wet areas to allow periodic survey monitoring. We recommend 3 to 4 hubs be placed on the north edge of the ditch rider road, and a similar number placed on the embankment. We recommend the hubs be monitored monthly, with results of lateral and/or downward movement reported to Wallace Group.

Long-term solutions include piping this section of canal, and lining the canal with roller-compacted concrete and/or shotcrete. Short-term measures to reduce seepage include placing impervious fabric against the canal bank and bottom, however, this would require a temporary shutdown of the canal, if needed during irrigation season.

After irrigation season ends, we should re-evaluate the inside of the canal bank and bottom to provide additional insight concerning the observed seepage. Ideally, we should observe the canal just after the water is shut off, to observe for areas where water may be funneling through sinkholes or porous rock areas. It may be warranted to excavate a few test pits into the canal ditch rider road, or on the northern canal bank. However, backhoe exploration will disturb the existing embankment, thus any subsurface exploration should proceed with caution.

LIMITATIONS

Wallace Group's scope of services included a visual geotechnical evaluation of the existing conditions at the subject site and were performed using a mutually agreed upon scope of services. Our opinions, conclusions and recommendations are based on our observations and local experience with similar soil conditions. Variations from the conditions reported herein are possible and are sometimes sufficient to alter our conclusions. The Client must recognize that it is impossible to predict every subsurface condition that could be present. If new or additional information becomes available, we should be notified to evaluate the information and recommend an appropriate alternative course of action. The professional judgments expressed in this report meet the standard of care of our profession; however, no warranty is expressed or implied.

LOCATION 9



To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130500 Tax Lot: 01200, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature]

10.11.17

Sign Full Legal Name

Date

CRALC HORREAU

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) or Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756

Mailing Address - Street

City

State

Zip

State of Oregon

County of Multnomah

Signed or attested before me on October 11, 2017 by

[Signature]

Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 181201B0 Tax Lot: Canal Lot, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

10.11.17

Sign Full Legal Name

Date

CRAIG HORZELL

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) on Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND, OR 97756

Mailing Address - Street

City

State

Zip

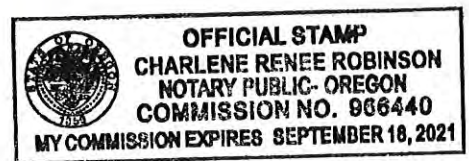
State of Oregon

County of Multnomah

Signed or attested before me on Oct 11, 20 17 by

[Handwritten Signature]

Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130300 Tax Lot: 01600, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

10.11.17

Sign Full Legal Name

Date

CRAIG HORZELL

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) or Title if Different from Above (Printed)

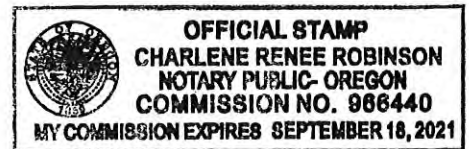
1055 SW LAKE CT REDMOND OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah

Signed or attested before me on Oct. 11, 20 17 by

[Handwritten Signature]

Notary Public – State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130800 Tax Lot: 00500, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature] 10.11.17
Sign Full Legal Name Date

CRAIG HORZELL
Print Full Legal Name

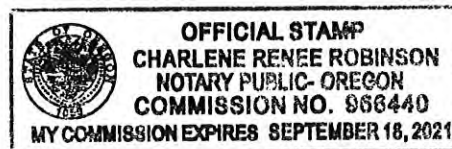
Central Oregon Irrigation District
Legal Name(s) on Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah

Signed or attested before me on Oct. 11, 20 17 by

[Signature]
Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 3:29 PM
To: Jerry Hubbard
Cc: ZELLER Tracy * OPRD; ALLEN Jason * OPRD
Subject: RE: Submitting a letter to the Historical Commission re the CO Canal
Attachments: image001.png; Lt Deschutes County Historical Landmarks Commission Matt Martin.pdf

Mr. Hubbard:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

The National Register is a program of the federal National Park Service and is locally administered by our office. The preview of the State Advisory Committee on Historic Preservation is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Jerry Hubbard [<mailto:jerryhubbard1943@gmail.com>]
Sent: Friday, October 13, 2017 3:51 PM
To: ian.johnson@state.or.us
Subject: Fwd: Submitting a letter to the Historical Commission re the CO Canal

I do not support the historic designation. We need to save water not let it drain into the ground.

--

Jerry Hubbard, CFM Retired, IFMA Fellow
541 390 9798
17065 Azusa Road, Sunriver, OR



MEMO

To: Matt Martin, Deschutes County

From: Craig Horrell, COID

Date: September 7, 2017

RE: Historic Nomination of COID Canal

Dear Matt,

Thank you for your inquiry about COID's position regarding the historic nomination of the section of the Central Oregon Canal between Ward Road and Gosney Road. We have not been provided a copy of the nomination, so the following are only our preliminary concerns.

1. Conflict with MPD/other nominations

COID recently completed a multi-year study and preparation of a Multiple Property Document that provided a comprehensive analysis of the historic resources that make up the irrigation systems within our region. That process resulted in a formal MPD approved by the National Park Service, as well as nomination of important and representative sections of the Pilot Butte Canal and Central Oregon Canal at Redmond and Brasada Ranch. Our thorough, systematic process reflected an enormous investment of time and money in order to thoroughly study, document, and preserve important historic resources.

In contrast, the piecemeal "hostile nomination" of COID canal sections by those opposed to conservation projects lack the study, documentation, analysis, and holistic approach that COID has taken. If SHPO allows this piecemeal nomination process to proceed, it will undermine the efficacy and value of the MPD process and discourage entities like COID from investing in thorough study and analysis of historic resources. This is bad policy and bad precedent.

2. COID Ownership

COID owns the canal as well as significant parcels of the adjacent land. COID acquired its interest in the Central Oregon Canal through Carey Act irrigation rights-of-way more than 100 years ago. In addition, COID owns in fee title several parcels of land adjacent to the canal in this section. Despite our ownership, we have yet to receive a copy of the nomination and have not been consulted. Again, SHPO's allowance of hostile nominations without the consent or approval of property owners is seriously problematic and the County should discourage this precedent.



3. Lack of Historic Value

The canal section between Ward and Gosney Roads may be the single section of canal that presents COID with the largest maintenance and operational challenges. Over the years, we have had constant maintenance challenges in this section. We have faced problems with burrowing animals, erosion, and ground collapse that have required COID to add rip rap, perform excavation, add soil, and/or make other modifications on a nearly annual basis. There are at least eight different sections of this stretch that have been substantially rebuilt in the last 10-15 years. In addition, we have repeatedly lined this canal section with collected silt, such that very little of this section reflects its original character. Thus, unlike other sections of the canal, this particular section has less historic value and does not reflect its original construction. Instead, this is a section that has been constantly altered and worked on to try to address the thorny geology and other conditions that present ongoing maintenance challenges.

This raises another concern, which is that over the years COID has repeatedly had to make emergency repairs to this section of canal. To the degree that historic nomination might preclude or impair our ability to make rapid emergency repairs (i.e., by adding large amounts of rip rap or backfill materials in the event of a collapse or breach), this could present a significant danger of harm to property or safety.

4. Conflict with Conservation

In addition, we are implementing a system improvement plan to eventually pipe most of the Central Oregon Canal. This piping will allow COID to obtain substantial water conservation savings, allowing us to shore up flow in the Deschutes River, assist junior water rights holders, and meet the habitat demands of endangered and threatened species. SHPO seems to take a myopic view about historic nominations, without consideration of competing and important community values. The risk is that the historic nomination process will become a tool for obstruction of conservation, potentially tying up conservation projects in needless red tape. We are concerned that this particular nomination has very little to do with the historic value of this section of canal, and much more to do with the desire of a few property owners to preserve a water feature that they enjoy. As the County comments on this proposal, it should consider the larger context and the overall community benefit that comes from water conservation projects. While we do not have a present funding source to pipe the Ward to Gosney Roads section, COID does anticipate seeking such funding and, if successful, will look to pipe this section at some point in the future.

We trust that the County recognizes COID's appreciation and commitment to historic preservation. In large and small ways, COID celebrates its history and role in the development of Central Oregon. As an example, as part of the demolition at the old Cline Falls hydro facility, we have preserved sections of the original structure and are designing a kiosk to tell the story of that noteworthy site. Our MPD and nominations of sections of the Central Oregon and Pilot Butte canals were meaningful efforts to celebrate and preserve important components of our history. At the same time, just as the telegraph eventually gave way to telephone lines and fiber optic cable, our community must recognize that open, unlined, leaky canals are not the most efficient or appropriate way to convey water across lava rock in a high desert.

10/20/17

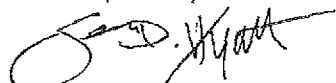
To: The National Register of Historic Places

My name is Sean Hyatt, and I married the most beautiful girl ever born and raised on Bear Creek Ranch in Bend, Oregon, which is owned by Suzanne and Gary Grund. I was born and raised in Portland and now my family and I live just a little further south in Tualatin. I went to school at Oregon State University, where I graduated with my Bachelor's Degree in History, and I've always been very interested in learning where everything came from. In how the world we live in came to be the way it is today. In the mistakes we've made, if we've learned from them, and what was done to correct them. So, one of the many great things about marrying into the Grund family was how much passion Gary had for learning history as well. We've visited many antique districts around the state together, and just passed time telling stories from books we've read or documentaries we've seen on different people, places, and events in history. Bear Creek Ranch and the city of Bend are very lucky to have someone that cares so deeply about their history, and works very, very hard to not only preserve it, but to pass it on as well.

My first time visiting the Grund family, when Lisa and I started dating, I remember coming across the bridge over the canal and admiring not only the beauty of the entire property itself, but of the rushing water flowing through the canal under the bridge as we crossed over. I, of course, had to mention it to Gary and Suzanne once I met them, because it's just something that's too difficult not to compliment. And Gary, of course, being who he is, had to give me the whole story of how that canal came to be. How the canal was built around 100 years ago to encourage settlers to move to the Central Oregon areas. How many years of hard, grueling work allowed those places to actually be livable, thanks to the water from the built canal. How their property, all of the surrounding properties, and the entire city of Bend wouldn't be the way it is today without it. It's been really fun learning even more about the canal and its history during my research after this nomination came to be.

What I would really hate to see happen is for these stories, the history of this entire area's beginning, to slowly become forgotten, or replaced with less attractive stories. If this stretch of the canal is not protected, if this stretch of the canal which is owned by the people who reside there with the deeded water rights sold to them by the Carey Act is not protected, then what happens next could be devastating. We risk letting the canal be subject to other projects, turning it into something that people no longer ask about, even avoid talking about, thus slowly losing the history and integrity of the canal. As passionate as Gary was in telling me about the rich history of their property that day, and many similar stories since, I will be that passionate in filling our 2-year-old son in on that history, and his friends, and the same goes for the other property owners and their next generations. How difficult is it to paint the picture when the physical evidence is all but erased, or replaced? I ask that you vote to forward this nomination onto the National Park and Recreation Service. I would hate for this to be another mistake made, because once we learn from this one, there's nothing that can be done to correct it.

Thank you very much for listening.



Sean Hyatt

Hi, I'm Lisa Hyatt. My parents Gary and Suzanne Grund are proud owners of a portion of the canal with deeded water rights sold to the property by the Carey Act. I'm here today to show my support for the nomination of the Central Oregon Canal Historic District into the National Register of Historic Places. I want you to vote to forward this nomination onto the National Park and Recreation Service.

I currently live in Portland but I was born and raised in Bend so I grew up with the Canal being a very important part of my daily life. Did you know that prior to the canal being built, in 1900 there was only approx. 21 people living in Bend and Bend along with much of the surrounding area was classified as 'arid' and thought to be almost worthless due to the light rainfall? You wouldn't know that today from the over 91 thousand that currently live there. The construction of this canal that began in 1903 brought value to the land and settlers from all over who purchased land and bought water rights.

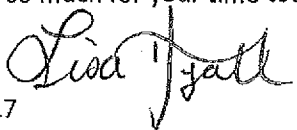
The nominated section from Ward to Gosney Road has so many historical scars and artifacts remaining today that tell a story of its creation. The Bear Creek Ranch Bridge that resides on our property is truly one of a kind. It was built around 1928 by the property owner, Dragan W. Mirich, to provide access across the canal from Break Creek Road to his land on the south side of the canal. I wish I had been around to see the construction because it's seriously impressive when you think about the tools they had available to them at the time!! He started with creating 3 huge concrete piers. On top of the middle pier a massive steel "I" beam was placed horizontally. And then 6 10" x 10" rough-sawn lumber was placed parallel to the piers. Since the bridge spans 65 ft long and 10 ft wide the weight of ONE of those was probably over 300 pds. Finally 4" x 12" wood planking was placed across those beams providing the level driving surface. Now that is a lot of material, man power, and true grit to get to the final result. My family still uses this bridge on a daily basis to get to our property. Isn't it amazing that to this day, **89 years later** this bridge is still standing and being used for the same purpose it was created for originally. I think that is what history is all about and that is why this is a historic structure in the historic district. Pictures really don't do it justice so if you find yourself in the Bend area I highly recommend you come by and see it for yourself...my dad would be happy to give you a history lesson :)

In this same section of the canal there is also a historical headgate that was engineered to divert water from the main canal into the Irrigation ditch to our property. This ditch is maintained by my family because it feeds into our upper pond that breaks off from there and waters our fruit trees then flows down to a lower pond where the pump pulls water to irrigate our land. I have so many memories as kids having to move all that irrigation pipe for the alfalfa grass we grew at the time. **AGAIN** this illustrates that **89 years later** the water from the historic canal was providing the same value to our property that was originally promised and taken advantage of by the settlers. We were taught hard work by my parents, to live off the land and utilize it to the fullest. The history shows that without the hard work of the settlers who were brought by the canal before us our home wouldn't be what it is today, Bend wouldn't be what it is today and I wouldn't be who I am today. Doesn't that deserve to be preserved so we can educate our future generations. I want to be able to not only tell the stories but physically show my 2 year old son the history of how our family home was created and because of all of this I ask that you vote to forward this nomination onto the National Park and Recreation Service.

Thank you so much for your time today.

Lisa Hyatt

10/20/2017



10-16-17

To the National Register of Historic Places:

With regards to the nomination of Central Oregon Canal Historic District (Ward Road- Gosney Road Segment), I want to thank you for looking at this nomination because I believe you will see it is a really good one.

The canals were the beginning of people living in Central Oregon, 1898 is when the surveying started. They were built to encourage settlers to move to the Central Oregon area from all over the United States and Europe. Some of those families are farming that land today. As far as the strength of the historic value or significance of this stretch you could not find a better location.

There are original flume pilings, thousands of lava rock pavers that line the side walls. They were precisely placed to move the water with little resistance. There are drill holes all down the canal both in and out of the canal. The men working on the canal drilled the holes and poured dynamite powder into them. The explosion blasted the solid, lava flow rock bed into smaller rocks that could be dragged out to the sides with horses. Those are visible in the canal for the nine months when the water is turned off and alongside the canal all year round. You will also see a wood and metal bridge built in 1928 and cat walks created to allow access to the head gates. It's as if they have been untouched for over 100 years.

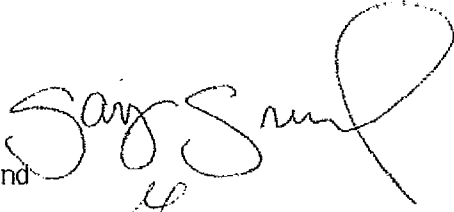
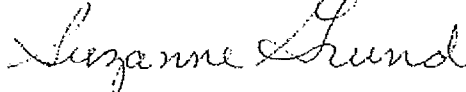
We feel that this amazing example of our history deserves to be protected and reserved so the community of Central Oregon can enjoy seeing the work these men put in to put Bend on the map.

We are proud owners of the Canal with deeded water rights sold to this property by the Carey Act.

Respectfully,

Gary Grund

Suzanne Grund

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Tuesday, November 14, 2017 10:02 AM
To: Sean Hyatt
Cc: ZELLER Tracy * OPRD
Subject: RE: Central Oregon Canal Between Ward Road Bridge and Gosney Road Bridge Letters
Attachments: Canal Letters.pdf

Hello Mr. Hyatt,

Thank you for attending the meeting, I know it's a long haul from Bend. I've got your letters, and we'll enter them into the public record. Revisions are currently underway for the nomination, and I expect that the nomination will be heard again by the Committee in February. We have not yet determined the location of that meeting, but will keep our website updated, and notify folks who own property along the nominated stretch of the canal around mid-December.

Cheers,
-jason

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Sean Hyatt [<mailto:Sean@pacsan.net>]
Sent: Tuesday, November 14, 2017 9:55 AM
To: ALLEN Jason * OPRD
Cc: Sean Hyatt
Subject: Central Oregon Canal Between Ward Road Bridge and Gosney Road Bridge Letters

Jason,

It was a pleasure being able to attend the public hearing about the canal last month, and enjoyed hearing all of the discussion. Attached are the letters my wife and I wrote, as well as my wife's parents (who live at Bear Creek Ranch) letter. I hope you can please get these into the right hands. Thanks so much.

Sean Hyatt
Pacific Sanitation – Chief Financial Officer
O: 503.393.1031
C: 971.219.9160
E: sean@pacsan.net

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 3:27 PM
To: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: FW: Central Oregon Canal on the Historic Register

Forgot to copy you.

Ian



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 3:27 PM
To: 'Doug Paris'; ian.johnson@state.or.us
Subject: RE: Central Oregon Canal on the Historic Register

Mr. Paris:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

The National Register is a program of the federal National Park Service and is locally administered by our office. The preview of the State Advisory Committee on Historic Preservation is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Doug Paris [mailto:doug_paris@live.com]

Sent: Friday, October 13, 2017 5:54 PM

To: ian.johnson@state.or.us

Subject: Central Oregon Canal on the Historic Register

Ludicrous-Next we can anticipate some inane slab of concrete or a fence post being listed on a Historic Register. When is the State going to become a bit more rationale with taxpayers funds and deal with something that is important. Even the little bit of money involved in this effort would be better used to bring the school systems up to par so Oregon does not have such a reprehensible stature of being at the bottom of the national ratings for graduation and drop outs.

Sent from [Mail](#) for Windows 10

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 3:26 PM
To: Christopher Kell; ian.johnson@state.or.us
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Central Oregon Canal - Historic nomination

Mr. Kell:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

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I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Christopher Kell [<mailto:christopher.kell@yahoo.com>]
Sent: Saturday, October 14, 2017 12:54 PM
To: ian.johnson@state.or.us
Subject: Central Oregon Canal - Historic nomination

The historic nomination of the section of the Central Oregon Canal between Ward Road and Gosney Road should not be approved. An historic designation of that section of the canal is not appropriate and would derail many years of effort to protect 61 miles of the Upper Deschutes and the associated riparian habitats.

Christopher Kell

56956 Besson Raod
Bend, OR 97707

ALLEN Jason * OPRD

From: ZELLER Tracy * OPRD
Sent: Tuesday, October 24, 2017 2:03 PM
To: 'Christopher Kell'
Subject: RE: Proposed Central Oregon Canal Historic District

Mr. Kell,

Please let me clarify, when I sent you that earlier email, I thought you were within the proposed historic district, and in order to make an objection "vote" official, a notarized statement is required; however, that only applies to owners within the proposed district. Anyone may oppose or support a nomination at any time without a notarized statement, and they have all been forwarded to, and seen by the committee, and will also be forwarded to the National Park Service, however, only the votes submitted by property owners within the boundaries will count as an official "vote".

I hope this clarifies my previous email. Should you have further questions, comments, or concerns, please do not hesitate to contact me.

Thank you.

Tracy Zeller, National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: Christopher Kell [<mailto:christopher.kell@yahoo.com>]
Sent: Tuesday, October 24, 2017 1:39 PM
To: ZELLER Tracy * OPRD
Subject: Re: Proposed Central Oregon Canal Historic District

Mr. Zeller,

Your restriction limiting objections to owners of property along the canal misses the essential point that this decision affects not only the few properties along that portion of the canal but the entire upstream reach of the Deschutes River including the thousands of properties in the upstream area, not to mention the deleterious effect a listing would have on the River itself.

Christopher Kell

On Tuesday, October 17, 2017, 3:29:20 PM PDT, ZELLER Tracy * OPRD <Tracy.Zeller@oregon.gov> wrote:

Mr. Kell,

Ian Johnson forwarded you email to me regarding your opposition to the proposed Central Oregon Canal Historic District, however, in order for you objection to be counted, you must sign and have notarized the attached opposition form, and then mail (not email) it back to my attention.

Thank you.

Tracy Zeller, National Register & Grants Assistant

State Historic Preservation Office

725 Summer Street NE, Suite C

Salem, OR 97301

(Phone) 503-986-0690

(Fax) 503-986-0793

Tracy.Zeller@oregon.gov

ALLEN Jason * OPRD

From: Christopher Kell <christopher.kell@yahoo.com>
Sent: Tuesday, October 24, 2017 2:45 PM
To: ZELLER Tracy * OPRD
Subject: Re: RE: Proposed Central Oregon Canal Historic District

Thank you for taking the time to clarify my misunderstanding. That is helpful. As I'm sure you know this is a very sensitive issue for many people in this part of the State.

Christopher Kell

On Tuesday, October 24, 2017, 2:03:00 PM PDT, ZELLER Tracy * OPRD <Tracy.Zeller@oregon.gov> wrote:

Mr. Kell,

Please let me clarify, when I sent you that earlier email, I thought you were within the proposed historic district, and in order to make an objection "vote" official, a notarized statement is required; however, that only applies to owners within the proposed district. Anyone may oppose or support a nomination at any time without a notarized statement, and they have all been forwarded to, and seen by the committee, and will also be forwarded to the National Park Service, however, only the votes submitted by property owners within the boundaries will count as an official "vote".

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Thank you.

Tracy Zeller, National Register & Grants Assistant

State Historic Preservation Office

725 Summer Street NE, Suite C

Salem, OR 97301

(Phone) 503-986-0690

(Fax) 503-986-0793

Tracy.Zeller@oregon.gov

From: Christopher Kell [<mailto:christopher.kell@yahoo.com>]
Sent: Tuesday, October 24, 2017 1:39 PM
To: ZELLER Tracy * OPRD
Subject: Re: Proposed Central Oregon Canal Historic District

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Thank you.

Tracy Zeller, National Register & Grants Assistant

State Historic Preservation Office

725 Summer Street NE, Suite C

Salem, OR 97301

(Phone) 503-986-0690

(Fax) 503-986-0793

Tracy.Zeller@oregon.gov

ZELLER Tracy * OPRD

From: ALLEN Jason * OPRD
Sent: Thursday, October 12, 2017 8:04 AM
To: ZELLER Tracy * OPRD
Subject: FW: Please save the Ward to Gozne Rd Canal

I believe this is for the public record.

Jason M. Allen, M.A.
Historic Preservation Specialist
Survey and Inventory Program Coordinator
Oregon State Historic Preservation Office
725 Summer St. NE, Ste. C
Salem, OR 97301-1266
503.986.0579
Jason.allen@oregon.gov

From: Kristen Grund [<mailto:kristen.grund@gmail.com>]
Sent: Wednesday, October 11, 2017 7:58 PM
To: ALLEN Jason * OPRD
Subject: Please save the Ward to Gozne Rd Canal

Jason Allen,

I am a very long time Bend resident, born and raised on the east side of Bend on Bear Creek Rd. I am very saddened and disappointed that COIC has decided to pipe the entire 400 miles of canals running through Bend. These have been a source of water for farmers, established wildlife, and our history! I understand growth and progress, and that Bend will sadly never be what it was, but PLEASE do the right thing at least preserve the 3 miles of 400 for us that still plan on living here in beautiful Bend. If not for us, for our children and grandchildren.

Thanks for voting to preserve the canal.

Kristen Jokinen
37 year Bend Resident

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at Lot 3, Block 5 Arrowhead Acres 2nd Addition, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Lesley Linn Robbins Date _____

Printed Name: Lesley Linn Robbins

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road Bend OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
61801 Wickiup
RD

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at Lot 3, Block 5 Arrowhead Acres
2nd Addition, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed: Carolyn Sue Robbins 10/10/17
Date

Printed Name: Carolyn Sue Robbins

Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61801 Wickiup Road, Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

Also owns
61801 Wickiup

From: JOHNSON Ian * OPRD
To: Barb Meyers; ian.johnson@state.or.us
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Historic Designation of Canals fed by Deschutes River
Date: Wednesday, October 25, 2017 1:39:39 PM
Attachments: [image001.png](#)

Ms. Meyers:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be added to the public record for consideration during the next steps of the process. Our agency website has further details: <http://www.oregon.gov/oprd/HCD/NATREG/Pages/Central-Oregon-Canal-Historic-District.aspx>.

Many people contacting our office have expressed concern about balancing the many needs of the community. Unfortunately, the National Register program does not address these issues. The National Register is a program of the federal National Park Service and is locally administered by our office. The purview of the State Advisory Committee on Historic Preservation, our office, and the National Park Service is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the National Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx.

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Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Barb Meyers [mailto:barb.meyers55@gmail.com]
Sent: Friday, October 20, 2017 12:08 PM
To: ian.johnson@state.or.us
Subject: Historic Designation of Canals fed by Deschutes River

Dear Mr. Johnson,

We would like to add our voices in preventing historic designation of the canals fed by the Deschutes River. Instead, we are in solidly in favor of piping and covering the canals, where possible, to drastically reduce extensive water loss to seepage and evaporation. Sisters has enjoyed great accolades for a similar project, thus successfully restoring six miles of habitat and flow of Whychus Creek.

We strongly urge you to vote NO on the Historic Designation of canals in Central Oregon in order to restore the health of the Upper Deschutes River.

Thank you for your thoughtful consideration.

Barb and Mark Meyers

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Wednesday, October 18, 2017 2:56 PM
To: Dalton Miller-Jones
Cc: ZELLER Tracy * OPRD; ALLEN Jason * OPRD
Subject: RE: Deschutes River Irrigation Canals Proposed "Historic" Designation

Mr. Miller-Jones:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:
http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

The National Register is a program of the federal National Park Service and is locally administered by our office. The preview of the State Advisory Committee on Historic Preservation is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Dalton Miller-Jones [<mailto:millerjonesd@gmail.com>]
Sent: Wednesday, October 18, 2017 12:00 PM
To: ian.johnson@state.or.us
Subject: Deschutes River Irrigation Canals Proposed "Historic" Designation

I respectfully requests *denial* of the applicants' request to have the section of the Central Oregon Canal between Ward Rd and Gosney Rd designated as historic.

There are many reasons why the designation as *Historic* is not appropriate. Modernizing irrigation and piping the leaky canals is crucial to restoring the Deschutes River and has been supported by area farm irrigation users in testimony before the Deschutes County Commissioners. Many people, including The Deschutes Conservancy organization, have worked diligently to restore the historic flows to the Deschutes River. Multiple stakeholders have been meeting for several YEARS to express their views on how to best meet the compelling and competing demands for water in the Deschutes River Basin. The Basin Study Work Group has developed a *Deschutes Basin Streamflow Restoration Program* that promises to address these competing interests using water marketing and conservation programs that can lead to long-term water management planning in the basin. Preserving the irrigation canals as a Historic Landmark would satisfy only one group of special interest property owners along the canal system and throw a wrench into the hard won agreements among the principle users.

The Wild & Scenic Deschutes river is not separate from the canals. The river predates the canals and requires that we all work together to ensure a healthy river basin now and in the future. Please do not approve this propose historic designation.

Respectfully Submitted,

Dalton Miller-Jones, private citizen.



October 20, 2017

Oregon State Historic Preservation Office
Attn: Tracy Zeller
725 Summer St. NE, Suite C
Salem, OR 97301
Submitted via email to Tracy.Zeller@oregon.gov

Re: Proposed Central Oregon Canal Historic District, Ward-to-Gosney Road

The Oregon Water Resources Congress (OWRC) is providing comments in opposition to the proposed nomination of the Ward Road to Gosney Road section of Central Oregon Canal to the National Register of Historic Places. The proposed nomination does not meet the criteria for listing and appears to be an attempt to preserve the viewshed of the proponents' neighborhood rather than any intrinsic historical character of that section of canal. Furthermore, it would seem that the State Historic Preservation Office (SHPO) is in breach of its Memorandum of Agreement with the Central Oregon Irrigation District (COID) and the Bureau of Reclamation (Reclamation), by considering this nomination outside of the detailed process agreed upon by the parties for the study, documentation, and preservation of these historic resources.

OWRC is a nonprofit association representing irrigation districts, water control districts, improvement districts, drainage districts and other agricultural water suppliers. These local government entities operate complex water management systems, including water supply reservoirs, canals, pipelines, and hydropower production, and deliver water to roughly 1/3 of all irrigated land in Oregon. COID is one of OWRC's members along with six other districts in the Deschutes Basin. Reclamation is valuable federal partner to OWRC and actively works with many our members.

Historical nominations related to district infrastructure is a subject of growing concern, particularly when these nominations are filed without the cooperation of the irrigation district that owns/operates the water delivery infrastructure. The nomination of the Ward Road to Gosney Road section of Central Oregon Canal to the National Register of Historic Places seems baseless, especially considering COID is already moving forward to preserve the district's most significant historical resources in tandem with developing a system-wide plan to improve its water infrastructure. This nomination seems designed to prevent operations and maintenance activities in the backyards of proponents rather than a genuine effort to preserve history.

The addition of canals and other aging infrastructure to the National Registry without the cooperation of the districts has the potential to lead to increased legal action and insurance claims related to canal breaches and other infrastructure issues that can result if a district is unable to properly access, maintain, or improve its water delivery infrastructure in a timely manner. In the event of an emergency, a district may have to make substantial repairs or re-construct a canal, without the luxury of time to seek permission from a local historic landmark commission that may only meet a few times a year. Furthermore, the delays caused by these nominations can effectively terminate collaborative water conservation projects (due to loss of federal and/or state funding) and the numerous benefits they can provide.

The proposed nomination lacks merit and the potential detriment to the district, the Deschutes Basin watershed, and Oregon's agricultural community as a whole is far greater than any potential benefits. Therefore, we urge you to oppose the nomination of the Ward Road to Gosney Road section of Central Oregon Canal to the National Register of Historic Places. We are willing to engage in discussions with SHPO and others about how to better address these types of historical nominations and collaboratively preserve the most significant historical infrastructure without negatively impacting irrigated agriculture. Thank you for your consideration of our comments.

Sincerely,
April Snell,
Executive Director



DATE: October 12, 2017
TO: State Advisory Commission on Historic Preservation
Attn: Ian Johnson
FROM: Deschutes Redbands Chapter of Trout Unlimited *Shaun Pigott*, President
50 SW Bond Street Suite 4 Bend, OR 97702 *Mike Tripp*, Board Member
Subject: **Proposed Historic Listing - Central Oregon Irrigation District Canal
Between Ward and Gosney Road**

Dear Mr. Johnson:

The Deschutes Redbands Chapter wishes to express its opposition to the proposed historic listing of the Central Oregon Irrigation District (COID) canal between Ward and Gosney Roads.

The mission of Trout Unlimited is to restore cold water fisheries. Our TU chapter, with over 650 members, is actively engaged in multiple efforts to restore habitat and instream flows in the Deschutes River. The largest of these efforts is the Bureau of Reclamation Basin Study which, through the Basin Study Work Group, has engaged more than 30 stakeholders in reviewing future water supply and demand in order to develop long term solutions to better balance these needs. Although reports are not finalized, it has become clear that restoration of instream flows will require modernization of the irrigation district's conveyance infrastructure. A critical component of this modernization is piping of irrigation canals which will greatly reduce the current loss of water from open canals due to seepage into our porous volcanic geology.

We recognize that restoring flows to the Deschutes will require change, resulting in some negative impacts on a few property owners. Specifically, this means the loss of aesthetic features afforded by open canals which seasonally run alongside these properties. It should be highlighted that COID, in anticipation of this issue, invested in development of a "Multiple Property Document" and nominated 2 canal sections for historic listing based on this study. The canal section between Ward and Gosney Roads was determined to not meet the criteria for historic designation because the recurring maintenance requirements in this reach have essentially removed the historic features of the canal bed and borders.

We encourage the State Advisory Commission to recognize this lack of historic value and reject this nomination. The greater public good will come from restoration of instream flows in the Deschutes River. This will benefit the entire population of Central Oregon and the cold water fisheries which both residents and visitors cherish. We cannot support random historic nominations of canal sections that establish precedents which obstruct the major efforts underway in our basin for restoration of the Deschutes River. Historic designations should result from rigorous analysis based on specific eligibility criteria as demonstrated in the Multiple Property Document. Accepting less invites the loss of opportunities to return water to the Deschutes, not better preservation of our region's history.

Thank you for the opportunity to participate in this process.

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Tuesday, October 17, 2017 3:27 PM
To: Dean Richardson; ian.johnson@state.or.us
Cc: ZELLER Tracy * OPRD; ALLEN Jason * OPRD
Subject: RE: Proposed Historic Designation of Ward/ Gosney section of a Central Oregon canal

Mr. Richardson:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

The National Register is a program of the federal National Park Service and is locally administered by our office. The preview of the State Advisory Committee on Historic Preservation is limited to determining whether the property does or does not meet the National Park Service criteria for listing and the documentation standards. Properties that are eligible for listing are those that are 50 years old or older, retain their historic appearance, and tell a significant historic story. While local jurisdictions are required under state rules to review the demolition of a property listed in the National Register, the rule does not prevent demolition. In this case, it means that Deschutes County could permit the piping of the canal even if it were listed in the Register. Ultimately, it is a local decision whether this segment of the canal will or will not be preserved. You can find out more about the program here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Dean Richardson [<mailto:richardson1dean@gmail.com>]
Sent: Friday, October 13, 2017 11:27 PM
To: ian.johnson@state.or.us
Subject: Proposed Historic Designation of Ward/ Gosney section of a Central Oregon canal

I live on the spring-fed Fall River, which is a main tributary of the Upper Deschutes River.

The water in our natural river system is precious! Right now, only a fraction of the water stays in our rivers and this is causing many undesirable effects...

These irrigation ditches were built about 100 years ago; and waste water due to their crude & porous construction.

The Deschutes River is designated as Wild & Scenic; this canal is neither!

Efforts are being made to pipe water delivery, and meet the needs of agriculture more efficiently while leaving more water in the river.

I urge you to not to give Historic Designation, which will help us to protect our natural waterways.

Thank you,

-Dean Richardson

ALLEN Jason * OPRD

From: ZELLER Tracy * OPRD
Sent: Wednesday, October 04, 2017 11:56 AM
To: Robbins, William G
Cc: ALLEN Jason * OPRD; JOHNSON Ian * OPRD
Subject: RE: Central Oregon Canal Historic District
Attachments: DRAFT_SACHP_AGENDA_PUBLIC.pdf

Mr. Robbins,

You are welcome to testify against the proposed Central Oregon Canal Historic District before the committee discusses the nomination. As this is a public meeting, anyone from the public is allowed to testify for or against any property up for nomination. We typically give each person 2-10 minutes to testify, depending on the how many other nominations there are to discuss, and how many other people would like to testify.

I have attached a copy of the agenda for your convenience. Below is also a link to the SACHP webpage where you may review the upcoming proposed nominations.

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx

Should you have questions, comments, or concerns, please do not hesitate to contact me.

Thank you.

Tracy Zeller, National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: Robbins, William G [<mailto:brobbins@oregonstate.edu>]
Sent: Wednesday, October 04, 2017 10:07 AM
To: ZELLER Tracy * OPRD
Subject: Central Oregon Canal Historic District

Tracy,

I am a former member of the SHPO Advisory Committee (eight years) and would like to testify briefly at your upcoming meeting on October 20th. I was an enthusiastic and emotional supporter of the historic district for old working-class homes in Bend. However, as an environmental historian, I am adamantly opposed to the proposal to place some three miles of the Central Oregon Canal on the national register.

So, if it is possible, I would like to appear on the agenda of your October 20th meeting.

Bill Robbins

William G. Robbins

Emeritus Distinguished Professor of History
Oregon State University
Corvallis, OR 97331

10/20/17

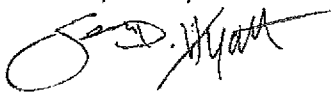
To: The National Register of Historic Places

My name is Sean Hyatt, and I married the most beautiful girl ever born and raised on Bear Creek Ranch in Bend, Oregon, which is owned by Suzanne and Gary Grund. I was born and raised in Portland and now my family and I live just a little further south in Tualatin. I went to school at Oregon State University, where I graduated with my Bachelor's Degree in History, and I've always been very interested in learning where everything came from. In how the world we live in came to be the way it is today. In the mistakes we've made, if we've learned from them, and what was done to correct them. So, one of the many great things about marrying into the Grund family was how much passion Gary had for learning history as well. We've visited many antique districts around the state together, and just passed time telling stories from books we've read or documentaries we've seen on different people, places, and events in history. Bear Creek Ranch and the city of Bend are very lucky to have someone that cares so deeply about their history, and works very, very hard to not only preserve it, but to pass it on as well.

My first time visiting the Grund family, when Lisa and I started dating, I remember coming across the bridge over the canal and admiring not only the beauty of the entire property itself, but of the rushing water flowing through the canal under the bridge as we crossed over. I, of course, had to mention it to Gary and Suzanne once I met them, because it's just something that's too difficult not to compliment. And Gary, of course, being who he is, had to give me the whole story of how that canal came to be. How the canal was built around 100 years ago to encourage settlers to move to the Central Oregon areas. How many years of hard, grueling work allowed those places to actually be livable, thanks to the water from the built canal. How their property, all of the surrounding properties, and the entire city of Bend wouldn't be the way it is today without it. It's been really fun learning even more about the canal and its history during my research after this nomination came to be.

What I would really hate to see happen is for these stories, the history of this entire area's beginning, to slowly become forgotten, or replaced with less attractive stories. If this stretch of the canal is not protected, if this stretch of the canal which is owned by the people who reside there with the deeded water rights sold to them by the Carey Act is not protected, then what happens next could be devastating. We risk letting the canal be subject to other projects, turning it into something that people no longer ask about, even avoid talking about, thus slowly losing the history and integrity of the canal. As passionate as Gary was in telling me about the rich history of their property that day, and many similar stories since, I will be that passionate in filling our 2-year-old son in on that history, and his friends, and the same goes for the other property owners and their next generations. How difficult is it to paint the picture when the physical evidence is all but erased, or replaced? I ask that you vote to forward this nomination onto the National Park and Recreation Service. I would hate for this to be another mistake made, because once we learn from this one, there's nothing that can be done to correct it.

Thank you very much for listening.



Sean Hyatt

Hi, I'm Lisa Hyatt. My parents Gary and Suzanne Grund are proud owners of a portion of the canal with deeded water rights sold to the property by the Carey Act. I'm here today to show my support for the nomination of the Central Oregon Canal Historic District into the National Register of Historic Places. I want you to vote to forward this nomination onto the National Park and Recreation Service.

I currently live in Portland but I was born and raised in Bend so I grew up with the Canal being a very important part of my daily life. Did you know that prior to the canal being built, in 1900 there was only approx. 21 people living in Bend and Bend along with much of the surrounding area was classified as 'arid' and thought to be almost worthless due to the light rainfall? You wouldn't know that today from the over 91 thousand that currently live there. The construction of this canal that began in 1903 brought value to the land and settlers from all over who purchased land and bought water rights.

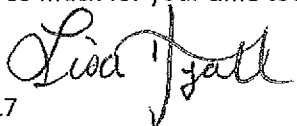
The nominated section from Ward to Gosney Road has so many historical scars and artifacts remaining today that tell a story of its creation. The Bear Creek Ranch Bridge that resides on our property is truly one of a kind. It was built around 1928 by the property owner, Dragan W. Mirich, to provide access across the canal from Break Creek Road to his land on the south side of the canal. I wish I had been around to see the construction because it's seriously impressive when you think about the tools they had available to them at the time!! He started with creating 3 huge concrete piers. On top of the middle pier a massive steel "I" beam was placed horizontally. And then 6 10" x 10" rough-sawn lumber was placed parallel to the piers. Since the bridge spans 65 ft long and 10 ft wide the weight of ONE of those was probably over 300 pds. Finally 4" x 12" wood planking was placed across those beams providing the level driving surface. Now that is a lot of material, man power, and true grit to get to the final result. My family still uses this bridge on a daily basis to get to our property. Isn't it amazing that to this day, **89 years later** this bridge is still standing and being used for the same purpose it was created for originally. I think that is what history is all about and that is why this is a historic structure in the historic district. Pictures really don't do it justice so if you find yourself in the Bend area I highly recommend you come by and see it for yourself...my dad would be happy to give you a history lesson :)

In this same section of the canal there is also a historical headgate that was engineered to divert water from the main canal into the irrigation ditch to our property. This ditch is maintained by my family because it feeds into our upper pond that breaks off from there and waters our fruit trees then flows down to a lower pond where the pump pulls water to irrigate our land. I have so many memories as kids having to move all that irrigation pipe for the alfalfa grass we grew at the time. **AGAIN** this illustrates that **89 years later** the water from the historic canal was providing the same value to our property that was originally promised and taken advantage of by the settlers. We were taught hard work by my parents, to live off the land and utilize it to the fullest. The history shows that without the hard work of the settlers who were brought by the canal before us our home wouldn't be what it is today, Bend wouldn't be what it is today and I wouldn't be who I am today. Doesn't that deserve to be preserved so we can educate our future generations. I want to be able to not only tell the stories but physically show my 2 year old son the history of how our family home was created and because of all of this I ask that you vote to forward this nomination onto the National Park and Recreation Service.

Thank you so much for your time today.

Lisa Hyatt

10/20/2017



ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Thursday, October 19, 2017 2:33 PM
To: Mike Shay; ian.johnson@state.or.us
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Historic designation of canals in Central Oregon

Mr. Shay:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

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http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_natreglist.aspx

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Thank you again for providing your comment to our office.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Mike Shay [mailto:goblinguys@yahoo.com]
Sent: Thursday, October 19, 2017 10:43 AM
To: ian.johnson@state.or.us
Subject: Historic designation of canals in Central Oregon

This is a response to the proposed historic register designation of canals in Central Oregon. The Upper Deschutes River is literally dying!! The extreme river flows are causing the following issues:

1. Fish and invertebrates dying in the low flow water months reducing once thriving recreation fishing and tourism industry. Fish spawning areas are being covered with silt.
2. River banks are drying out in the low flow months then being washed away during high flows. Trees are being undermined and washing into the river.

3. River channels are changing due to silt being washed into the river during high flows
4. Vegetation growing in areas not previously seen due to the increased silt and changing river channels
5. Flooding has increased during high flows attributed to changing river channels and additional vegetation.
6. The silt is being washed downstream to be retained in the area known as Mirror Pond in Bend. This results in the pond being dredged every few years at a cost in the millions.

The Water Basin Study currently in process has identified piping/covering the canals and more efficient methods of watering by irrigators as the two primary ways river water levels can be maintained in a more consistent manner. The land in Central Oregon is very porous causing very high leakage and evaporation in the canals. If the canals were piped/covered this water loss would be highly mitigated.

Although the canals may have slight historical significance, is it worth killing the river that so many thousands of people use and enjoy?? This designation will benefit few people, those living on the canals (very few) and those walking on the canals (even fewer). After reading the historic designation proposal it would appear there might be a few historic features on the canal. As an option could these areas remain uncovered, such as the bridge and a small section showing the construction. The majority of the canal would be covered. Also could walking/bike paths be constructed on the canal permitting an infinite number of people outdoor access. This would be similar to rails to trails in many areas. It would also be an excellent connector to neighborhoods and employment areas reducing automobile usage. The canal areas could be beautifully landscaped thus reducing the loss of privacy some property owners abutting the canal might claim.

I urge the commission, approving the canals has far greater downside and very little upside. Please vote against this proposal!!

Mike Shay goblinguys@yahoo.com

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Friday, October 13, 2017 11:11 AM
To: Gail Snyder
Cc: CraigHorrell; Phil.Henderson@deschutes.org; BANEY Tammy; DEBONE Tony; AUNAN Lauri * GOV; ZELLER Tracy * OPRD; ALLEN Jason * OPRD
Subject: RE: Nomination of the Central Oregon Canal for National Register of Historic Places

Ms. Snyder:

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here: http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Gail Snyder [<mailto:gail@coalitionforthedeschutes.org>]
Sent: Friday, October 13, 2017 8:12 AM
To: ian.johnson@state.or.us
Cc: CraigHorrell; Phil.Henderson@deschutes.org; BANEY Tammy; DEBONE Tony; AUNAN Lauri * GOV
Subject: Nomination of the Central Oregon Canal for National Register of Historic Places

Hello Ian,
Please find attached a letter from the Coalition for the Deschutes regarding the nomination of a segment of the Central Oregon Canal for National Register of Historic Places.

Also attached are photos of the historic fishery of the Upper Deschutes. The photos are courtesy of the Deschutes County Historical Society.

Thank you for including this in the State Advisory Commission on Historic Preservation packet for next week's meeting at which this nomination will be discussed.

Sincerely,

Gail Snyder

Gail Snyder
Executive Director, Co-founder
Coalition for the Deschutes
PO Box 1589, Bend 97709
cell: 503-961-4528
www.coalitionforthedeschutes.org
We're Wild about the Deschutes!

ALLEN Jason * OPRD

From: ZELLER Tracy * OPRD
Sent: Tuesday, October 10, 2017 11:42 AM
To: ALLEN Jason * OPRD; CURRAN Chrissy * OPRD; Deborah Schallert; Dow Beckham, Stephen; Gallagher, Mary; JOHNSON Ian * OPRD; Oberst, Mary; Osborne, Julie; Peting, Don; Trice Gwendolyn; Tveskov, Mark; ZELLER Tracy * OPRD
Subject: FW: COID canal

Please find a member of the public's comments regarding the upcoming proposed Central Oregon Canal Historic District.

I will provide all public comments next week at the meeting as well.

Thank you.

Tracy Zeller, National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: Bob Stephen [<mailto:robesteph3@gmail.com>]
Sent: Tuesday, October 10, 2017 10:16 AM
To: ALLEN Jason * OPRD
Subject: COID canal

Sir,
For 27 years, Diane Stephen and I have owned approximately 1600 feet of canal frontage in the section that is being looked at by your committee. During those 27 years, COID has undertaken exactly one maintenance procedure on this section of canal, and that procedure was to install a passive, clay barrier. This section is supposedly the worst section of their high maintenance area. To state otherwise, COID would be lying.

COID's latest advertising campaign also promotes themselves as being environmentally friendly. This is laughable from so many aspects. To give an example, COID owns a section of land adjacent to our land, and during the 27 years we have been here, COID has done exactly zero noxious, invasive weed control on their own land. Though the example land is not part of the proposed piping area, it is relevant as the piping will result in an initial explosion of invasive weeds. The weed problem takes place in any type of soil disturbance in Central Oregon, and the problem is minimized with control efforts. However, COID gives nothing but lip service to invasive weed control, and this can be seen in any area that COID has done construction.

The COID effort on screening the Deschutes River intake has been cited as an indicator of their environmental friendliness. This is again a joke as they have done nothing to improve their screening system unless forced to improve the screen. A person can still find large numbers of native, Deschutes River rainbow in the canal. Environmental friendliness is a joke when mentioned in the same breath as COID. The piping is supposedly an example of their environmental enhancements, but it is in reality a rip-off of federal tax dollars with minimal positive returns.

Thank you,
Robert and Diane Stephen

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd Bend, OR which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places. This letter reverses my previous objection to the listing of the Central Oregon Canal Historic District in the National Register.

Jeffrey Michael Stone
Sign Full Legal Name Date

Jeffrey Michael Stone 11/2/17
Print Full Legal Name Date

N/A
Name on title (if different than signed name)

61784 Ward Rd Bend, OR 97702
Mailing Address - Street City State Zip

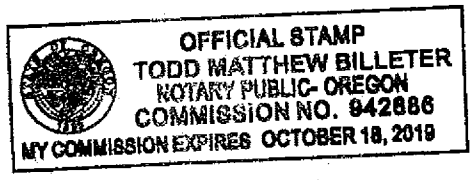
State of Oregon
County of Deschutes

Signed or attested before me on November 2 2017 by

Todd Matthew Billeter
Notary Public - State of Oregon

My Commission expires: OCTOBER 18, 2019

Reversals to Objections must be notarized by a Notary Public to be valid.



To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR 97702, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places. This letter reverses my previous objection to the listing of the Central Oregon Canal Historic District in the National Register.

[Signature] _____ 11/2/17
Sign Full Legal Name Date

Eliesha Paige Stone _____ 11/2/17
Print Full Legal Name Date

N/A _____
Name on title (if different than signed name)

61784 Ward Rd Bend, OR _____ 97702
Mailing Address - Street City State Zip

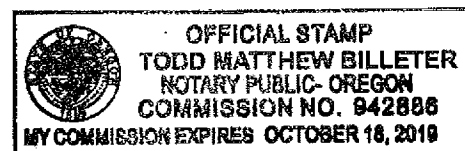
State of Oregon
County of Deschutes

Signed or attested before me on NOVEMBER 2 20 17 by

[Signature] _____
Notary Public - State of Oregon

My Commission expires: OCTOBER 18, 2019

Reversals to Objections must be notarized by a Notary Public to be valid.





Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org



November 6, 2017

Jeffrey Stone
Eliescha Stone
61784 Ward Road
Bend, OR 97702

RE: Nomination of the proposed Central Oregon Canal Historic District to the National Register of Historic Places

Dear Mr. and Mrs. Stone:

Thank you for submitting your letter of support reversing your previous objection for the Central Oregon Canal Historic District. Your letter will be forwarded to the National Park Service with the nomination documents in January 2018. Under federal law, the National Park Service will review the document for 45 calendar days before making a decision to either list the district, deny listing, or request further information before making a final determination. Notarized objections will be counted during this time. If the number of objections is greater than 50 percent of the total number of property owners in the proposed district the neighborhood will not be listed in the National Register. Letters of objection and support may be submitted at any time during the 45-day consideration period.

A fact sheet from our office describing the process for listing historic districts is included. Specific information about the process of getting listed in the National Register may be found on our website at http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_historicdistrict.aspx

Please contact me if you have any further questions or comments.

Thank you.

Sincerely,

Jason Allen

Historic Preservation Specialist

Phone: (503) 986-0579

Email: Jason.Allen@oregon.gov

enclosure



To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/15/17
Date

Printed Name: Eliesha Paige Stone

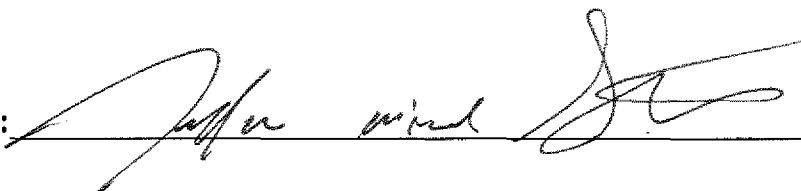
Same
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61784 Ward Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  9/15/17
Date

Printed Name: Jeffrey Michael Stone

Same
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61784 Ward Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature]
Sign Full Legal Name

9/15/17
Date

Jeffrey Michael Stone
Print Full Legal Name

Same
Legal Name(s) on Title if Different from Above (Printed)

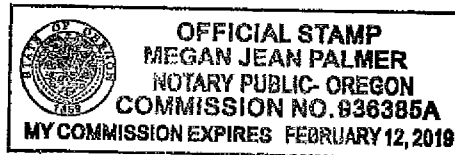
61784 Ward Rd
Mailing Address - Street

Bend
City

OR
State

97702
Zip

State of Oregon
County of ~~Multnomah~~
Deschutes



Signed or attested before me on SEPTEMBER 15, 2017 by

[Signature]
Notary Public - State of Oregon

My Commission expires: 02/12/2019

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature]

Sign Full Legal Name

9/15/17

Date

Eliesche Paige Stone

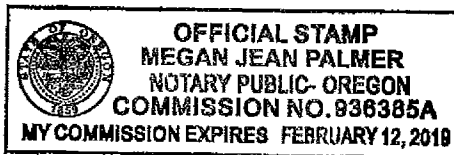
Print Full Legal Name

Same

Legal Name(s) on Title if Different from Above (Printed)

61784 Ward Rd Bend OR 97702
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah
Deschutes



Signed or attested before me on SEPTEMBER 15, 2017 by

[Signature]

Notary Public - State of Oregon

My Commission expires: 02/12/2019

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301



Oregon

Kate Brown, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE Ste C

Salem, OR 97301-1266

Phone (503) 986-0690

Fax (503) 986-0793

www.oregonheritage.org

October 2, 2017

Jeffrey and Eliescha Stone
61784 Ward Rd.
Bend, OR 97701



RE: Support and/or opposition to the nomination of the Central Oregon Canal Historic District

Dear Jeffrey and Eliescha,

Our office has received signed letters of support as well as signed and notarized letters in opposition of the nomination of the Central Oregon Canal Historic District from both of you. As such, it is not clear whether you are registering your support or opposition to the nomination, and we must ask you to clarify. Because of the way the voting is structured by the National Park Service, the notarized letters of opposition you provided are the currently valid votes. If you are actually in opposition to the nomination, you need not do anything. If you are in fact in favor of the nomination, we will need a notarized letter from you indicating that you wish to rescind your previous notarized vote in opposition (dated September 15, 2017).

Please bear in mind that you both are allowed to vote in this decision, and it is not required that you both vote in the same way. If you choose to let the currently valid notarized letter of opposition, please do let us know that you intend to do this, so we can confirm your position. I request that you send me an email to that effect, at the address below.

If you have any additional questions, or require clarification regarding any of the subjects in this letter, please feel free to contact me.

Sincerely,

Jason M. Allen, M.A.
Historic Preservation Specialist
(503) 986-0579
Jason.allen@oregon.gov



Hi, My name is Brenda Trowbridge. My husband and I purchased a ^{long} 4.5 acre stretch of the canal a few years ago for our three young children to explore, learn and enjoy. I spent 3 out of 4 weekends of my childhood in Central Oregon. I have both welcomed and wondered at its growth and change. We specifically chose our land because of our big dreams, its promising future, and relatively unchanged nature—much like I imagine the first settlers did when word went out that the Carey Act could provide a new beginning for them. I have walked hand in hand with each of my children and explored our canal many times through their eyes.

After reading this excellent nomination we began to learn and understand various features that have amazing historical significance! You can imagine explaining to a 3 and 6 year old how the little holes we discovered in the lava rock two summers ago are actually steam-powered drill holes that were then ignited with powder for a powerful explosion that created a meticulously laid out path for our water! We even found rocks with parallel chips from pick axes and small cylindrical rocks that look like they might be plugs for those drill-holes we found. More investigation and research will ensue, for sure. I also reminded them of the very first automobiles we saw at a car show and explained that before they and bulldozers were invented, true-horsepower was the norm and that horses also pulled contraptions called Fresno scrapers to dig and clear dirt and rocks to create the main body and sides of the canal. On our land, the canal curves in an S-shape with a tall berm extending from our backyard on the north. We can see an even taller slope from our property on the south side. Photo 4 from the nomination is actually our property, showing an incredible line up of rocks, or rip rap. That's a fun Kindergarten word, right there. Photo 10 isn't on our land but as pictured we can view many similar and obvious cuts across the lava flows on our land. The water changes from a very shallow and smooth slow moving section to a quite deep and narrow section of fast-moving water. Our section is unique because it retains water all throughout the season and is a refuge to myriad wildlife. We have witnessed and seen the animal tracks of coyotes, bobcats, bunnies, geese and goslings, ducks and ducklings, blue herons, bald eagles, raccoons, marmots and of course deer as well as crayfish laying their eggs and snails and frogs in their various forms.

Their young minds, even my own mind, cannot grasp the vastness what they see with their eyes and the unbelievable hard work and engineering genius it took to overcome the geological challenges unique to our area in order to build our particular stretch of historic canal district. We love the High Desert Museum, books and documentaries, but it is so true what Alexander Drake's father, Colonel Drake said: "This country is a revelation to us. Nobody can get an adequate conception of this section by reading about it." I hope our future guests, our children and their friends continue to encounter this revelation. Everyone who visits raves about it. We currently welcome people for weekly Bible Studies throughout the year and our future aspirations include a public U-pick berry farm, an outdoor learning center for preschoolers and if we can get permission, our dream of converting our home to a Bed and Breakfast after our children are grown. Guests from all around the world should enjoy this canal, as it is the reason Bend and all of Central Oregon became what it is today! We haven't seen features like these anywhere around Bend. In June 1906, Oregon Governor Chamberlain was quoted as saying he was "well pleased with the work of the D. J. & P. Co. He said its canals and entire reclamation works showed the marks of permanency."

With little exception, this district displays excellent integrity and by personally talking to neighbors and judging by the support of our petition, this nomination has tremendous historic value to our community. I sincerely and respectfully implore each of you to forward our nomination to the Nat'l Park Service. Help us honor our children by honoring the incredible people who made our hometown what it is today!

- 21 people in 1900 - one of last places to be developed.
- Now → top 10 fastest growing in America!

largest area in the United States without a railroad, and the last frontier of the thrilling and romantic Old West." 110 In 1900, when the Columbia Southern railroad arrived in the small city of Shaniko, sixty-nine miles south of Biggs, Oregon, on the Columbia, it became the connection point between the Deschutes Country and the outside world—an eighty-mile, twelve-to-fourteen hour trip by stage from Prineville, which was several more hours from the Bend area.

Hi, my name is
 RYAN
 start *

• **Sentimental/Community Value**

o The Deschutes' Settlers Association welcomed in June 1906 Oregon Governor Chamberlain, who as head of the State Land Board had visited Bend in 1904, and had returned in that role. With him were the entire land board and some other state officials, including future governor Oswald West, then State Land Agent. Chamberlain was "well pleased with the work of the D. I. & P. Co. He said its canals and entire reclamation works showed the marks of permanency," said the newspaper. He was "impressed...to the greatest degree... [by] the remarkable development of this region during the past two years. At that time he had...found a few scattering cottages along the river and two or three buildings at the townsite. Now he was entertained in a prosperous little city with well laid streets, beautiful lawns, a fine gravity water pressure system and [a] new public school building suitable to a city many times the size and age of Bend. Where before he found barren desert wastes now he could count prosperous ranches by the score." 3

Governor

o Our way of life out here, our community property values are nothing without this canal. Oregonian reported that this land was "practically worthless by reason of its arid character."

o See p. 45, "the canal changed the history of Central Oregon by providing the primary means of watering arid land and bringing a vast amount of capital, thereby significantly contributing to the economic enhancement of Ben, Redmond, Alfalfa and Powell Butte...facilitated settlement and shaped the settlement patterns of Central Oregon as settlers established new homes, ranches, farms, and businesses. " REI saved old mill

o ~~We love the High Desert Museum and books and documentaries, but it is so true what Alexander Drake's father, Colonel Drake said: "This country is a revelation to us. Nobody can get an adequate conception of this section by reading about it. It is an empire and I am fairly astonished at the display of native resource and possibilities of development that I observe here. Here I find actually present, and in a form to appeal to any business judgment, such native wealth and much opportunity for using it that I am surprised and gratified beyond expression."~~ 163

& we want to preserve this!

Sony
 Perfect fusion of past & future

• J.O. Johnston helped develop specs for the steam-powered drills and devised a system to use them effectively. He determined that steam-powered drilling was imperative in the rock near Bend as he had experience in the Deschutes-Columbia plateau.

- Tons of unnaturally sharply-angled breakage of ancient horizontally laid lava is present. Unknown tons of basalt boulders strewn in the bed remain as remnants of the work
- Geology

Crater Lake,
 Playstation 4 game → Multnomah, Belknap,
 Marion Forks, etc.

⊗ Please fwd our nomination to National Parks Service, ^{keep it all in reality} not ~~to~~

ALLEN Jason * OPRD

From: D J <stealthturner@msn.com>
Sent: Tuesday, October 10, 2017 8:11 AM
To: ALLEN Jason * OPRD
Cc: D J
Subject: Historical canal

Good morning Jason. Dave Turner here. It was nice to meet with you the other day and put a face to you. First of all I want you to know some of my feelings on the canal. I have had dealings in past with Coid and I can say from that I don't trust what they do or say. I myself do and mean what I say even if it cost me thousands of dollars which in one instance it did. When Coid says they own the land which canal is on that is a lie. My deed shows I own to middle of canal and actually a little on other side in one spot. Coid just has an easement to maintain that canal. To me it's goes a long way past maintaining it to putting in hydro electric plants. They have proposed 10 more in all. I myself wanted to do the very same thing for my power for my house years ago and they denied me. If you check usage of water when hydro plants was installed and before, the usage of water has been much greater when hydro is in use. That's one reason Coid wants to conserve the water but actually will be using the extra saved water to run the hydro. Don't be fooled on that idea of saving the water. Another point I would like to make about this canal issue is this. My property is in odfw wildlife habitat. We love all the wildlife in the area. If a least one area of the canal is not kept open than what happens to the wildlife? Coid nomination is a obsolete section that has no water going through it and is used for golf carts to access the other side of golf course. The only reason when Coid nominated that section is because it doesn't interfere with the piping project. Now how are future generations going to see history if you can't see it actually working. It's so much more educational to see something actually working rather than trying to understand it as would be Coid nomination. Another point is they are proposing to pipe over 400 miles of canal so the 3.5 miles we are asking to make historic is not even one percent of the total amount. One thing that I have heard that Coid spends 10% of its budget repairing our section of the canal for maintenance. Well in the almost 20 years I have lived here I have yet to see them repair anything on my property. Also the flume and the big holding area on my place is very unique. I was told by ditch rider that there were only two of those like that on whole canal system. It would be a shame to allow that to be destroyed. Everyone that comes to our place wants to look at that portion of the canal. I am sure you enjoyed that too. My last point is to say if the historic committee uses their best judgement on each nominee in my opinion the ward road wins hands down. It's like it was 100years ago and it doesn't have a golf cart running on it and it has the water in it as it should have to actually be historic. Please take a real look at this matter and consider ward road as the best example of a historic canal.

Sincerely. Dave and Janice Turner

Sent from my iPhone

Janice Turner + her husband Dave Turner ^{19 years}
wanted to be here but had a medical appt. that would ^{be} ~~would~~ ^{reschedule}

Dave and I have deep roots here in Central Oregon. Dave's Grandparents homesteaded on the high desert. Dave's Grandfather built a Ditch from Benjamin Lake to Chicago Valley with a pick, shovel, dynamite a two by four and a level in the 1930's. It still exists today. It's a wonderful testimony to our history of how water was moved across the High Desert.

My Grandparents and Parents homesteaded back here next to the canal that has been nominated to be historical. As a small child I remember following my Grandfather out to the laterals to bring the water back to our property for irrigation purposes. Grandpa had a turkey farm. Witted Turkeys. My Dad raised Alfalfa hay. Our current property borders a long stretch of the canal. Many of the rocks along the edge of the canal on our property still have the dynamite holes in them. It's so good, history has been preserved for future generations. Piping the canal would destroy part of our heritage and history.

Sincerely

~~Dave and~~ Janice Turner.

Good morning Jason. Dave Turner here. It was nice to meet with you the other day and put a face to you. First of all I want you to know some of my feelings on the canal. I have had dealings in past with Coid and I can say from that I don't trust what they do or say. I myself do and mean what I say even if it cost me thousands of dollars which in one instance it did. When Coid says they own the land which canal is on that is a lie. My deed shows I own to middle of canal and actually a little on other side in one spot. Coid just has an easement to maintain that canal. To me it's goes a long way past maintaining it to putting in hydro electric plants. They have proposed 10 more in all. I myself wanted to do the very same thing for my power for my house years ago and they denied me. If you check usage of water when hydro plants was installed and before, the usage of water has been much greater when hydro is in use. That's one reason Coid wants to conserve the water but actually will be using the extra saved water to run the hydro. Don't be fooled on that idea of saving the water. Another point I would like to make about this canal issue is this. My property is in odfw wildlife habitat. We love all the wildlife in the area. If a least one area of the canal is not kept open than what happens to the wildlife? Coid nomination is a obsolete section that has no water going through it and is used for golf carts to access the other side of golf course. The only reason when Coid nominated that section is because it doesn't interfere with the piping project. Now how are future generations going to see history if you can't see it actually working. It's so much more educational to see something actually working rather than trying to understand it as would be Coid nomination. Another point is they are proposing to pipe over 400 miles of canal so the 3.5 miles we are asking to make historic is not even one percent of the total amount. One thing that I have heard that Coid spends 10% of its budget repairing our section of the canal for maintenance. Well in the almost 20 years I have lived here I have yet to see them repair anything on my property. Also the flume and the big holding area on my place is very unique. I was told by ditch rider that there were only two of those like that on whole canal system. It would be a shame to allow that to be destroyed. Everyone that comes to our place wants to look at that portion of the canal. I am sure you enjoyed that too. My last point is to say if the historic committee uses their best judgement on each nominee in my opinion the ward road wins hands down. It's like it was 100years ago and it doesn't have a golf cart running on it and it has the water in it as it should have to actually be historic. Please take a real look at this matter and consider ward road as the best example of a historic canal. Sincerely. Dave and Janice Turner

ALLEN Jason * OPRD

From: JOHNSON Ian * OPRD
Sent: Friday, October 13, 2017 11:03 AM
To: Douglas Wickman; ian.johnson@state.or.us
Cc: ALLEN Jason * OPRD; ZELLER Tracy * OPRD
Subject: RE: Historic Canal?

Mr. Wickman,

Thank you for your email regarding the nominated segment of the Oregon Central Canal. Your comment will be provided to the State Advisory Committee on Historic Preservation at their October 20th meeting for the group's consideration. An agenda and meeting details are available on our website here:

http://www.oregon.gov/oprd/HCD/NATREG/pages/nrhp_sachphome.aspx .

I have copied the National Register Program staff on this email for their information. Please contact Jason Allen at (503) 986-0579 or jason.allen@oregon.gov if you have further comments or questions.

Ian Johnson



Ian P. Johnson | Associate Deputy State Historic Preservation Officer

Desk: 503.986.0678 cell: 971.718.1137

From: Douglas Wickman [<mailto:dwickman@ec.rr.com>]

Sent: Friday, October 13, 2017 9:50 AM

To: ian.johnson@state.or.us

Subject: Historic Canal?

Dear Sir,

As a land owner near the Deschutes River, I oppose listing the section of the Central Oregon Canal between Ward and Gosney Roads as historic. How can a canal be more historic than the River itself? Please focus your energies on the restoration of the Upper Deschutes River instead.

Sincerely,
Douglas Wickman
55956 Black Duck Rd OWW
Bend ,Or

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  8/31/18
Date

Printed Name: Jeffrey M. Stone

Jeffrey Michael Stone
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61784 Ward Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this statement, I certify that I am the sole or partial owner of the property located at 61784 Ward Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I support the listing of said property in the National Register of Historic Places.

Signed:  8/31/18
Date

Printed Name: Eliescha P. Stone

Eliescha Paige Stone
Legal Name(s) on Title if Different from Above (Printed)

Mailing Address: 61784 Ward Rd Bend, OR 97702
Street City State Zip

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301



United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
Columbia-Cascades Area Office
1917 Marsh Road
Yakima, WA 98901-2058

IN REPLY REFER TO:

CCA-1000
2.1.4.17

October 16, 2018

Ms. Christine Curran, Deputy
State Historic Preservation Office
725 Summer St. NE, Suite C
Salem, OR 97301-1266

Subject: Central Oregon Canal: Ward to Gosney National Register Nomination

Dear Ms. Curran:


It is my understanding that the *Central Oregon Canal: Ward to Gosney National Register Nomination*, which was originally prepared and submitted by landowners along that particular stretch of canal, has been substantially rewritten to tie into and utilize the registration requirements of the Multiple Property Document (MPD), *Carey and Reclamation Acts Irrigation Project in Oregon, 1901-1978*, which was approved by the National Park Service in July 2017. Central Oregon Irrigation District (COID), which has opposed previous versions of the nomination, is proposing to support this most recent iteration if it incorporates the requirements of the MPD.

The 2014 Memorandum of Agreement (MOA No. R14MA13733) between the Bureau of Reclamation, the Oregon State Historic Preservation Office (SHPO), and COID for piping of a segment of the I-Lateral, specified the development of an MPD (3.B.2, pg. 4) that would be used for selecting segments of both the Pilot Butte Canal and Central Oregon Canal to be nominated to the National Register of Historic Places (NRHP) (3.B.3, pg. 5), and that “the District, in consultation with Reclamation and the SHPO, shall select appropriate, contributing segments to be listed in the NRHP through the MPD.”

Reclamation supports the cooperative spirit of COID and the Ward to Gosney landowners to submit a revised National Register nomination that reflects the interests of both parties. However, Reclamation, as a signing party to the MOA, would appreciate the opportunity to review and offer comments/edits on this nomination. To that end, enclosed with this letter are comments regarding this most recent nomination. Assuming that it is revised to incorporate these comments and edits, Reclamation does not dispute that the Ward to Gosney nomination meets the registration criteria as specified in the MPD, meets COID’s mitigation obligations as specified in the MOA, and fulfills the intent of the programmatic agreement current being developed between Reclamation, COID, and the Oregon SHPO.

Thank you in advance for your attention. I understand that the State Advisory Council for Historic Preservation will be meeting to review the revised nomination on Oct 19, 2018. If you need additional information, please contact Ms. Chris Horting-Jones, Archaeologist for the Bend Field Office, at 541-389-6541, extension 236 or chortingjones@usbr.gov.

Sincerely,

A handwritten signature in blue ink that reads "Dawn Wiedmeier". The signature is fluid and cursive, with the first name "Dawn" being larger and more prominent than the last name "Wiedmeier".

Dawn A. Wiedmeier
Columbia-Cascades Area Manager

Enclosure

cc: Mr. Craig Horrell
Manager/Secretary
Central Oregon Irrigation District
1055 Southwest Lake Court
Redmond, OR 97756
(w/enclosure)



Horting-Jones, Christine <chortingjones@usbr.gov>

[EXTERNAL] FW: Central Oregon Canal Nomination to NRHP

1 message

CraigHorrell <chorrell@coid.org>

Tue, Oct 2, 2018 at 12:12 PM

To: "Horting-Jones, Christine" <chortingjones@usbr.gov>

See JRP's comments.

Matt Singer | Holland & Knight

Partner

Holland & Knight LLP

Alaska | Oregon

Phone 907.263.6318<tel:907.263.6318> | Fax 907.263.6345<tel:907.263.6345> | Mobile

907.830.0790<tel:907.830.0790> matt.singer@hklaw.com<mailto:matt.singer@hklaw.com> | www.hklaw.com<http://www.hklaw.com/>

Add to address book<<http://www.hklaw.com/vcard.aspx?user=masinger>> | View professional biography<<http://www.hklaw.com/id77/biosmasinger>>

Begin forwarded message:

From: Scott Miltenberger <SMiltenberger@jrphistorical.com<mailto:SMiltenberger@jrphistorical.com>>

Date: September 28, 2018 at 5:39:09 PM PDT

To: "Matthew Singer - Holland & Knight LLP (matt.singer@hklaw.com<mailto:matt.singer@hklaw.com>)" <matt.singer@hklaw.com<mailto:matt.singer@hklaw.com>>Cc: Meta Bunse <MBunse@jrphistorical.com<mailto:MBunse@jrphistorical.com>>

Subject: RE: Central Oregon Canal Nomination to NRHP

Matt -

I have completed a preliminary review of the latest COCHD (Ward Road-Gosney Road) nomination. While more careful consideration will permit a more detailed and perhaps nuanced analysis, I nevertheless believe that - much like its previous iterations - this nomination has essential flaws that ought to be remedied:

* The present nomination does not sufficiently comport with the history presented in the Carey and Reclamation Act MPD and accepted by the Keeper of the National Register. Although its argument for significance mirrors the significance of the COC and COID offered by the MPD, much of the substance of the history discussed by the nomination leading to this argument is unchanged from prior versions. Leaving aside the fact that the MPD makes such a detailed historic context for this nomination unnecessary, the nomination addresses other aspects of the development of the canal (largely engineering / technical) that do not support either its argument for significance or the MPD's, that are otherwise irrelevant. If the present nomination is to be part of the multiple property listing defined by the NR-listed MPD, under the argument for significance presented in the MPD, its historic context should more closely reflect the MPD's.

* The present nomination repeatedly block quotes from essential parts of the general registration requirements offered in the MPD, but it does not apply those in a meaningful way. It is insufficient to restate the MPD's language regarding requirements, and then assert those were followed without clearly discussing how.

* Finally (and as you noted), the present nomination fails to reckon with ICF's inventory and evaluation (i.e., the reconnaissance survey) that identified contributors and non-contributors, underpins the MPD, and was accepted by Oregon SHPO. It continues to identify elements within the proposed district as contributors that ICF found to be non-contributors (and again were accepted as such by SHPO), on the basis of tenuous evidence and analysis.

In sum, despite its attempt to engage with the MPD, the COCHD (Ward Road-Gosney Road) nomination as drafted does not add value to the understanding of the historic canal system and detracts from the good work already accomplished and accepted by the Keeper. More work is needed to craft a nomination within the MPD's framework.

I am available over the weekend to discuss this further. Please feel free either to email or call me: 530-574-4559. You can also reach me at the office (530-757-2521) after 9 am on Monday.

Scott

Scott A. Miltenberger, Ph.D.

Partner, JRP Historical Consulting LLC

530-757-2521 office | 530-574-4559 mobile | www.jrphistorical.com<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.jrphistorical.com_&d=DwMF-g&c=14jPbF-1hWnYXveJ5rixTS_Fo3DRrpL7HUwJDAc4Hlc&r=qwCH-lsfGoQvN8ned9phDo70IEFjufcVfRjISPgHJXw&m=K7F7H4Uj9KoHjyyA1u3rjlbF6lxPFjr_fb7GspsyjTE&s=Psp-kAfCcmdl0HHIfF2hvlZsGmaCa9BOajR-SXI4hPE&e=>>

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Horting-Jones, Christine <chortingjones@usbr.gov>

[EXTERNAL] FW: Central Oregon Canal Nomination to NRHP

1 message

CraigHorrell <chorrell@coid.org>

Tue, Oct 2, 2018 at 12:12 PM

To: "Horting-Jones, Christine" <chortingjones@usbr.gov>

See JRP's comments.

Matt Singer | Holland & Knight

Partner

Holland & Knight LLP

Alaska | Oregon

Phone 907.263.6318<tel:907.263.6318> | Fax 907.263.6345<tel:907.263.6345> | Mobile

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Add to address book<<http://www.hklaw.com/vcard.aspx?user=masinger>> | View professional biography<<http://www.hklaw.com/id77/biosmasinger>>

Begin forwarded message:

From: Scott Miltenberger <SMiltenberger@jrphistorical.com<mailto:SMiltenberger@jrphistorical.com>>

Date: September 28, 2018 at 5:39:09 PM PDT

To: "Matthew Singer - Holland & Knight LLP (matt.singer@hklaw.com<mailto:matt.singer@hklaw.com>)" <matt.singer@hklaw.com<mailto:matt.singer@hklaw.com>>Cc: Meta Bunse <MBunse@jrphistorical.com<mailto:MBunse@jrphistorical.com>>

Subject: RE: Central Oregon Canal Nomination to NRHP

Matt -

I have completed a preliminary review of the latest COCHD (Ward Road-Gosney Road) nomination. While more careful consideration will permit a more detailed and perhaps nuanced analysis, I nevertheless believe that - much like its previous iterations - this nomination has essential flaws that ought to be remedied:

* The present nomination does not sufficiently comport with the history presented in the Carey and Reclamation Act MPD and accepted by the Keeper of the National Register. Although its argument for significance mirrors the significance of the COC and COID offered by the MPD, much of the substance of the history discussed by the nomination leading to this argument is unchanged from prior versions. Leaving aside the fact that the MPD makes such a detailed historic context for this nomination unnecessary, the nomination addresses other aspects of the development of the canal (largely engineering / technical) that do not support either its argument for significance or the MPD's, that are otherwise irrelevant. If the present nomination is to be part of the multiple property listing defined by the NR-listed MPD, under the argument for significance presented in the MPD, its historic context should more closely reflect the MPD's.

* The present nomination repeatedly block quotes from essential parts of the general registration requirements offered in the MPD, but it does not apply those in a meaningful way. It is insufficient to restate the MPD's language regarding requirements, and then assert those were followed without clearly discussing how.

* Finally (and as you noted), the present nomination fails to reckon with ICF's inventory and evaluation (i.e., the reconnaissance survey) that identified contributors and non-contributors, underpins the MPD, and was accepted by Oregon SHPO. It continues to identify elements within the proposed district as contributors that ICF found to be non-contributors (and again were accepted as such by SHPO), on the basis of tenuous evidence and analysis.

In sum, despite its attempt to engage with the MPD, the COCHD (Ward Road-Gosney Road) nomination as drafted does not add value to the understanding of the historic canal system and detracts from the good work already accomplished and accepted by the Keeper. More work is needed to craft a nomination within the MPD's framework.

I am available over the weekend to discuss this further. Please feel free either to email or call me: 530-574-4559. You can also reach me at the office (530-757-2521) after 9 am on Monday.

Scott

Scott A. Miltenberger, Ph.D.

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Central Oregon Canal Nomination to the National Register of Historic Places

I understand you are considering the nomination of Central Oregon Canal to the National Register of Historic Places. I support the nomination.

Irrigation has had a major influence on the development patterns and land uses in the tri-county area. Many of the roads in Bend take their names from the ranches and farms made possible by irrigation. Wells Acres Road, Arnold Market Road, Butte Ranch Road, Reed Market Road and Butler Market Road just are some examples of how agriculture, made possible by irrigation, has shaped land uses and history of Bend.

Forestry and agriculture were the driving forces in settlement and development in Deschutes, Crook, and Jefferson Counties until the 1980's when tourism took off.

I think it is important that future generations have a tactile experience with the one of the major factors influencing how the tri-counties came to be what they are today. That tactile experience is seeing the running water in the heart of the major population center, hearing the water move in a canal, feeling the humidity, and experiencing the strength of the irrigation water in the decades old canals.

Possibly soon most and maybe all of the canals will be modified to prevent water loss. I support the movement to conserve water and return it to the rivers and streams for fisheries, recreation, aquatic health and the riparian vegetation we have all learned to recognize. At the same time we should offer an opportunity experience the history of how that water, through decades of irrigation, has made the tri counties what they are today.

Thank you for your consideration

Colin Michael Johnson

Patricia Kliewer
60465 Sunridge Drive
Bend, OR 97702
541 617-0805'

October 1, 2018

Deschutes County Historic Landmarks Commission
Christine Horting-Jones, Chair
Commissioners Smidling, Stemach, Leighty, Olsen and Madden.
PO Box 6005, Bend, OR 97708
c/o Zechariah Heck, Associate Planner
Zechariah.Heck@deschutes.org

Re: Nomination to the National Register of Historic Places, the Central Oregon Canal (Ward Road-Gosney Road Segment)

Dear Landmarks Commissioners,

First, I am truly sorry to take up your valuable time yet again on this nomination! It think the third time is the charm this time! I thank you for addressing the comment sheet one more time.

Last Wednesday the Board of County Commissioners at their work session heard a presentation by Zechariah Heck. He provided a memo from SHPO staff Jason Allen about the differences in the August 2018 version of the nomination with the Dec 2017 version. I trust he has provided you with the same information. If not, please ask for it. Most of the nomination is the same as you previously reviewed. Below is the key information about the significant developments since we last visited you.

The new information that you need to know is:

1. There is a new cooperative relationship between my clients and COID since the end of June 2018. COID no longer opposes the nomination and realizes it is in their best interest to have it listed on the NRHP, asap.
2. The nomination is now on the MPD form.
3. After the Carey and Reclamation Acts Irrigation Projects in Oregon (1901-1978) MPD went before the SACHP several times, it was voted to be forwarded to the NPS in Feb 2017, over many objections. What I did not know was that the engineering staff at the Bureau of Reclamation completely overhauled the Carey and Reclamation Acts Irrigation Projects in Oregon (1901-1978) MPD, taking six months to do so, after the SACHP voted to forward it to the NPS and SHPO staff also improved it. The much-improved version was listed on the NRHP after I submitted the COC Historic District (Ward Road-Gosney Road Segment) nomination last summer. I was not aware that the MPD had been professionally revised. Most of what I had objected to and many people testified against at the SACHP hearing in Feb 2017 in Portland were corrected in the final version, unbeknownst to us. I read the listed version this summer and saw a few mistakes, but many improvements. I could accept it.
4. Ian Johnson, SHPO Deputy Director, said the COC Historic District (Ward Road-Gosney Road) nomination could meet the February 2014 MOA No. R14MA13733 between COID, the Bureau of Reclamation and the Oregon SHPO with a few changes. They

would prefer that it was on the MPD form, but it did not have to be. The MOA is a very important agreement and it led to the MPD, the Downtown Redmond Historic District Nomination and the Brasada Ranch Historic District nomination, all started in early 2014 and submitted by COID. All of them were reviewed several times by the SACHP.

5. After the SACHP public hearing on the COC Historic District (Ward Road-Gosney Road Segment) meeting last June, I met with COID's manager and Assistant Manager twice and we saw the opportunity to meet both of our goals by getting this nomination listed. We could work together to take away COID's objections and meet the remaining MOA requirements.
6. I spent a few weeks this summer transferring the Dec 2017 nomination onto the National Register of Historic Places MPD form and added some references to the Carey and Reclamation Acts Irrigation Projects in Oregon (1901-1978) MPD so that it could more easily fulfill the February 2014 MOA No. R14MA13733. I made the changes, deletions and additions required and recommended by Jason Allen after the SACHP hearing.
7. The already-extended deadline for COID to meet the requirements of the Feb. 2014 MOA between COID, the Bureau of Reclamation and the Oregon SHPO is next February 2019, and SHPO is not interested in extending the deadline again. COID's starting over with a new nomination for a different stretch of the Central Oregon Canal cannot meet the deadline and would incur more expense for COID. The Central Oregon Canal Historic District (Ward Road-Gosney Road) nomination will be listed by then, if there are no further delays. Even if COID helps to pay for the current nomination, it will only be a small fraction of the cost of hiring a new team to write a new nomination for a different segment of the COC canal.
8. The Ward Road-Gosney Road is the best segment to nominate for many reasons. It has most of the irrigation-related structures listed in the MPD. It has high integrity. It passes through farmland with COID patrons, irrigation ponds and active irrigation systems so people can see how the system works. It has publicly owned land with direct access from Gosney Road, Ward Road and Somerset Drive. It is accessible. Bend Park & Recreation District already is planning an 80-acre park that is crossed by the canal in the historic district and an accessible paved trail along it. It is close to the population areas; and it has the backing of all of the property owners. The nomination is already written. The only opponent has been COID.
9. The Brasada Ranch nomination is not likely to be listed anytime soon, if at all. It is questionable whether or not it still meets the listing criteria, even if the owners removed their objection to the listing.
10. COID is required to nominate, have listed and protect an open stretch of the Central Oregon Canal, preferably one that has good public access to allow for interpretation, signage, trails, and parking. SHPO and the Bureau of Recreation have agreed that the Ward Road to Gosney Road segment of the COC meets the qualifications of the MOA.
11. The fall in the canal in the nominated stretch is the same as the canal average of 15 feet drop per mile. No power plant is anticipated for the segment. Piping is low priority. The segment has much solid lava rock flows in its bed and lower than average seepage losses, with standing water in many stretches all winter. Piping was not planned for the next 20 years.

I want to repeat the information I sent to you last spring about your role in maintenance and repairs. There still is confusion about that. COID said last spring about listing the historic district, "*a listing would substantially degrade the District's ability to serve their needs if there was a break or leak in the canal that needed to be fixed.*" I do not want this misinformation and unnecessary worry to continue. COID fears that it will not be able to maintain the canal in the historic district, if it is listed on the NRHP. It is entering into a Programmatic Agreement with the

Bureau of Reclamation and the Oregon SHPO about how the listed segments should be maintained and protected. That PA will add more certainty about what is expected. You can learn more about it from the Oregon SHPO or your Chair.

During the past two years, there have been no instances in which the HLC prevented COID from maintaining and repairing the Pilot Butte Canal Historic District, (Yeoman Road-Cooley Road Segment.) or the Pilot Butte Canal Historic District (Downtown Redmond Segment). There was a blow out and minor flooding at the intake to the pipe for the Juniper Ridge Power Plant in the historic district and other problems with rock chucks. COID was not prevented from its usual timely repair and maintenance. I expect the same for this segment of the Central Oregon Canal.

The County's Historic Preservation Code allows for ordinary maintenance and repairs or necessary emergency alterations, without County HLC's review.

The County's Historic Preservation Code states at 2,28,090.J:

“Nothing in DCC 2.28 shall be construed to prevent the ordinary maintenance or repair (e.g. painting) of exterior architectural features of a building or structure which does not involve a change in design or type of materials.”

2,28.090. K. states,

“A change in design or type of materials shall be allowed if the County building official states in writing that the repair is necessary for personal or public safety due to an unsafe or dangerous condition in or on the building or structure.”

Furthermore, Sterns Waste is owned by the COID and is in the proposed historic district. More information about how it is used in an emergency is in Section 7 of the Nomination

I hope you will fill in the comment form for the SACHP and say that the nomination meets all of the requirements for listing and that you are pleased COID and the owners are working together this time to get this listed in a timely manner. Thank you very much.

Sincerely,

Pat Kliewer

Pat Kliewer, MPA

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
other names/site number N/A
Name of Multiple Property Listing Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978
(Enter "N/A" if property is not part of a multiple property listing)

2. Location

street & number Roughly bounded by by Bear Creek Rd. to the north, Gosney Rd. to the not for publication
east, Somerset Dr. to the south, and Ward Rd. to the west
city or town Unincorporated Deschutes County vicinity
state Oregon code OR county Deschutes code 017 zip code 97701

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,
I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.
In my opinion, the property X meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance: national statewide X local
Applicable National Register Criteria: X A B C D

Signature of certifying official/Title: Interim Deputy State Historic Preservation Officer Date
Oregon State Historic Preservation Office
State or Federal agency/bureau or Tribal Government

In my opinion, the property meets does not meet the National Register criteria.
Signature of commenting official Date
Title State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:
 entered in the National Register determined eligible for the National Register
 determined not eligible for the National Register removed from the National Register
 other (explain:) _____
Signature of the Keeper Date of Action

Central Oregon Canal Historic District
Name of Property

Deschutes Co., OR
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

Category of Property
(Check only **one** box.)

Number of Resources within Property
(Do not include previously listed resources in the count.)

- private
- public - Local
- public - State
- public - Federal

- building(s)
- district
- site
- structure
- object

| Contributing | Non-contributing | |
|--------------|------------------|--------------|
| 0 | 0 | buildings |
| 0 | 0 | site |
| 21 | 15 | structure |
| 0 | 0 | object |
| 21 | 15 | Total |

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

AGRICULTURE/SUBSISTENCE

Irrigation facility, canal

Current Functions

(Enter categories from instructions.)

AGRICULTURE/SUBSISTENCE

Irrigation facility, canal

7. Description

Architectural Classification

(Enter categories from instructions.)

NO ARCHITECTURAL STYLE

Materials

(Enter categories from instructions.)

foundation: N/A

walls: N/A

roof: N/A

other: EARTH; STONE, basalt

Central Oregon Canal Historic District

Deschutes Co., OR

Name of Property

County and State

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and non-contributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity).

Summary Paragraph

The Central Oregon Canal is in the Upper Deschutes River Basin, near the center of Oregon, in Deschutes and Crook Counties. (See Figure 1.) The main canal is 47 miles long and heads northeast across the high desert plateau through the city of Bend and the rural communities of Alfalfa and Powell Butte. (See Figure 8.) **Construction of the** headgate and diversion structure at the Deschutes River was begun in 1902, and the canal was completed in 1914. The canal drops 701' in elevation to its terminus just south of the Crooked River, allowing the water to flow entirely by gravity.¹ From the main canal, the water flows through a distribution system of successively narrower and shallower laterals and ditches as it delivers water to properties with water rights. The irrigation system delivers water to 25,257 acres today.² The historic, roughly trapezoidal shaped, open main canal was made of native volcanic soil and irregularly shaped and sized lava rock. The historic district begins 7.75 miles east of the diversion point and ¼ mile east of the Bend city limits in Deschutes County. The district is 3.4 miles long, crossing rural land between the Ward Road Bridge on the western edge and the Gosney Road Bridge on the eastern edge. In the historic district, the canal ranges in width from 34' to 78', averaging around 50', and its depth varies from 1' to 9', averaging around 4' deep, depending on the amount of volcanic lava flows encountered, the terrain, and slope. The canal was built in irregular profiles, often wider and shallower than it was designed, in order to reduce expensive rock blasting and excavation.³ The canal through the historic district carries nearly the full amount of water diverted from the Deschutes River, 530 cubic feet per second during the irrigation season, April through October.⁴ The elevation of the canal on the western historic district boundary is 3,658 feet and water gradually drops about 15 feet per mile in the district, which is average for the entire canal. The historic district has unique rocky terrain, rolling hills and sudden drops in elevation mixed with flat stretches, over lava tubes. It runs through the southwest quarter through the northeast quarter of Township 18 South, Range 12 East, Section 1, W. M. (T18S, R12E, Section 1), from the northwest quarter to the southeast quarter of T18S, R13E, Section 6, through the southwest quarter of Section 5 and ends in the center of the north half of Section 8. (See Figures 15-20.) The historic district encompasses 50' on either side of the canal centerline to create a 100' corridor that includes all the contributing resources. **Most of the property owners in the district, where parcels range from 1 acre to 80 acres in size, hold water rights, and use irrigation water.** (See Figures 4a-4f.) Much of the historic setting, including cultivated farms, a full range of irrigation system components, irrigation ponds and native vegetation, remains. The nominated canal, with its winding, character-defining, rocky, uneven canal bed and irregular slopes, cuts, and tall embankments is historic contributing. The historic design and materials, tool marks, and blasting drill holes are evident and tell the narrative of its construction through solid basalt rock flows that were blasted apart and moved with horse teams. The historic district has a high degree of all aspects of integrity. Contributing structures are the historic main canal, a 215'-long concrete chute, remains of a 305'-long wooden flume, turnouts (headgates) and associated headwalls, pipes and weirs to two laterals, 10 waterfalls/ drops, and seven turnouts to irrigation ditches. Two metal catwalks across the canal with associated checks, nine turnouts to ditches and one turnout to a sub-lateral, a historic one-lane wooden bridge, a corrugated metal pipe that delivers water across the canal to a ditch, and a set of three emergency discharge gates are non-contributing structures. (See Figure 5.) This nomination conforms with the general registration requirements and the description and classification of structures in the linear water distribution system of man-made water conduit and conveyance structures, as set out in the MPD, Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978, listed in 2017.

Commented [HC1]: This statement is somewhat misleading, in that COID holds the water rights certificates as trustee of the state of OR, and conveys water to the end user (the irrigator). The water rights are appurtenant to the land parcel/tax lot. The property owners do not "hold water rights;" the water rights "remain" with the property when the property sells/changes ownership, and can be revoked by the ID in the event of non-use (Leslie Clark, Director of Water Rights, COID, personal communication, 10/10/18). Suggest instead "maintain appurtenant water rights and use irrigation water." References to water rights throughout this doc. Also need to be revised.

¹ Google Earth 2017

² Central Oregon Irrigation District, Executive Summary, Preliminary System Development Plan, September 19, 2016.

³ Dubuis, John, Report to Desert Land Board on Central Oregon Project, 1914, p. 5.

⁴ Oregon Department of Water Resources, 2016 averages

Central Oregon Canal Historic District

Name of Property

Deschutes Co., OR

County and State



Looking south to irrigation water delivered to a hay farm in the center of Alfalfa by the Central Oregon Canal.⁵

LOCATION, GEOGRAPHY AND GEOLOGY OF THE CENTRAL OREGON CANAL

Location

The Central Oregon Canal (COC) is in Deschutes and Crook Counties, Oregon. The canal is in the Upper Deschutes River Basin, near the center of the state, east of the Cascade Mountain Range. (See Figure 1.) The main canal is 47 miles long. It traverses the plateau east of the Deschutes River, south of the Crooked River, west of the Dry River, and north of the National Newberry Volcano Monument. It begins within the city of Bend at the diversion gate in the Deschutes River. The canal runs from the Deschutes River, its source of water, through the southern urban portion of Bend, population 82,000⁶, flowing east of the city limits through progressively sparsely populated rural lands toward the Badlands Wilderness Area. From there, it abruptly turns north and heads to the unincorporated communities of Alfalfa and Powell Butte (population 1,768)⁷, where orchard grass and alfalfa hay are primary crops, and then flows northwest toward the Crooked River. The canal ends at several large ponds, just south of the Crooked River Gorge.

Alfalfa and Powell Butte

Alfalfa is about 16 miles east of Bend and consists of irrigated pastures and livestock ranches, one historic convenience store and a community hall in a converted school. Alfalfa does not have a census tract and has fewer than 1,000 residents. The irrigated farms and ranches along the main COC and laterals in Alfalfa are like an oasis surrounded by thousands of acres of uncultivated dry scrub lands with sparse juniper trees and sagebrush in public ownership. (See Figure 22.) Reynolds Pond, a public recreation pond, and Zell Pond, both in Alfalfa, are filled by water from the 'I'-Lateral of the Central Oregon Canal.

Powell Butte is on OR 126, 8.3 miles east of Redmond, 11.2 miles west of Prineville, and 24.9 miles northeast of Bend. Powell Butte (population 1,768), has a US Post Office, two churches, a gas station/convenience store, a school with 186 students in kindergarten through eighth grade, and a new community center and fire station.⁸ Northwest of Powell Butte, the canal fills Houston Lake and Little Houston Lake near its terminus. Most residents in Powell Butte and Alfalfa do not earn their primary income from farming and they commute to jobs in Prineville, Redmond, and Bend. Modern small lot rural-residential housing developments with and without irrigation rights take advantage of beautiful views of the Cascade Mountains from the western slopes of Powell Buttes. On the flatter land, many residents are hobby and commercial farmers, with horses and other livestock in irrigated pastures.⁹ Substantial irrigated hay and cattle ranches of more than 40 acres in size are interspersed with uncultivated public land.

⁵ Patricia Kliewer photograph, May 21, 2017.

⁶ Visit Bend website, May 5, 2017.

⁷ www.bestplaces.net/zip-code/oregon/powell_butte/97753

⁸ Powell Butte Community Charter School website, May 2017.

⁹ Oregon State Extension Service, Deschutes County Office.

Central Oregon Canal Historic District

Deschutes Co., OR

Name of Property

County and State

The Cascade Mountain Range and Precipitation

The Cascade Range blocks rainclouds coming from the west. Therefore, the high desert area receives a relatively sparse average of ten inches of precipitation annually, including 15 inches of snow.¹⁰ The western side of the mountain range is lush with diverse vegetation and populous timber lands. On the eastern side, the rich flora quickly changes to an arid plateau.¹¹ The country east of the Cascades presents a series of broad plains and mesas covered with lava of various ages, from some that outpoured as recently as 7,000 year ago to the ancient flows whose surface has largely changed into soil.¹²

Geography Facilitates the Gravity-Flow Irrigation System

The 180,000 acres east of the Deschutes River in Deschutes County is ideally suited for a gravity-flow irrigation system because of its relatively flat terrain with a gradual downward slope to the north and east, a 30-foot drop per mile.¹³ The Deschutes River water conveyed by the Central Oregon Canal flows north and then east across the high desert plateau toward the east-to-west flowing Crooked River next to Powell Buttes. The Deschutes River¹⁴ drains the eastern slope of the Cascades from a point a few miles north of Crater Lake National Park, northward to the Columbia River. The Deschutes Basin is roughly 75 miles long and 30 miles wide, with an elevation that ranges from about 3,000' to 5,000'. The lands in Central Oregon slope down from the mountain range toward the south-to-north flowing Deschutes River. From the river, the land slopes to the east another 701 feet east across the high plateau to Powell Buttes. It slopes down 600 feet across the plateau from south to the north, where it meets the Crooked River. The Crooked River flows west from the rural Paulina area through Prineville and Smith Rock State Park to the confluence with Deschutes River. The Deschutes River flows north to join the east-to-west flowing Columbia River. In Bend, the mountainous ponderosa pine forest transitions into high desert, characterized by arid land, volcanic soils, sparse grasses, evergreen juniper trees, sagebrush, rabbitbrush, bitterbrush, bunch grass, and bear grass.

Climate in Bend and Crops Grown with Irrigation Water

The Deschutes Soil and Water Conservation District writes, "Deschutes County has a wide range of growing seasons because of elevation differences. Frost can happen at any time during the short growing season. Climate definitely limits crop production." Bend receives between 8" and 14" of precipitation annually on average.¹⁵ "Hay and pasture have always been the main irrigated crops and are the foundation of the livestock industry, with 35,000 to 40,000 acres of hay and grass grown annually for at least the last 30 years."¹⁶ Deschutes County, being in zones 4-5, all plants that are rated zones 6-10 must be grown in heated greenhouses.¹⁷ Hay is essential winter feed for livestock.

The COC irrigates 25,257 acres and drops an average of 15 feet per mile, for its 47-mile length. .¹⁸ It begins inside the Bend city limits along the eastern bank of the Deschutes River in south-central Bend. The 'A' Lateral branches off the main canal in Bend and carries water to water users north through the entire length of the city and northeast of the city limits. The lateral and associated ditches irrigate both urban lots in town and rural

¹⁰ Weather.com

¹¹ Natural Resources Conservation Service, *Soil Survey: Deschutes Area*, (Series 1945, No. 2, U.S. Department of Agriculture, Soil Conservation Service in Cooperation with Oregon Agricultural Experiment Station, Washington: Government Printing Office, December 1958), 63. This mix and its density, each species' size and the overall composition of vegetation vary by location.

¹² Newell, Frederick Haynes, *Irrigation in The United States*, (New York: Thomas Y. Crowell, 1902), 350-51. Newell became the first Director in 1907 when the Reclamation Service broke away from the U.S. Geological Survey (USGS) to become a separate agency under the Department of the Interior. Among many activities and accomplishments, he was a hydraulic engineer and an expert on irrigation for the Eleventh and Twelfth United States Census.

¹³ COID Website, May 2017

¹⁴ McArthur, Lewis L., *Oregon Geographic Names*, (Portland: Western Imprints, Fifth Edition, Revised & Enlarged, 1982), 218-19. Lewis and Clark discovered the Deschutes River on October 22, 1805; however, on the return journey the explorers called it Clarks River, presumably for William Clark. In the fur trading period, the stream was known as *Riviere des Chutes* or *Riviere aux Chutes*, meaning River of the Falls. The trappers applied their name because the river flowed into the Columbia near the falls of that river and not because of any falls on the Deschutes itself.

¹⁵ Deschutes Soil and Water Conservation District, Deschutes County Rural Living Handbook, 2011, pages 3 and 4.

¹⁶ *Ibid*, page 5.

¹⁷ Deschutes County office of the Oregon State University Extension Service.

¹⁸ COID Website and interview with COID staff, 2001 and 2017.

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land outside of Bend. The main canal stays south of Pilot Butte and flows east of Bend to the Dry River at the western base of Bear Creek Butte and Powell Buttes. Powell Buttes, elevation of about 5,100', frames the east side of the farming area. The buttes between Redmond and Prineville are named "Powell Buttes" while the unincorporated community is called "Powell Butte". The rural agricultural acreage served by the canal and its laterals are clustered near the canal in three relatively distinct areas: between Bend and Alfalfa, between Alfalfa and the community of Powell Butte and in the irrigated gentle hills northwest of Powell Butte. (See Figures 1, 22, and 23.)

Geology

The canal is made of native rock and soil. The land crossed by the canal near Bend is very rocky and presents the challenges of many volcanic lava tubes and caverns that must be bridged. Land north of US Highway 20 and east of Gosney Road has progressively less rock. The Deschutes Soil and Water Conservation District states in *Deschutes County Rural Living Handbook, a Resource for Country Living and Land Stewardship*, "In Deschutes County, geology includes basalt bedrock, pumice rock, volcanic ash, glacial deposits, and materials deposited by water. Most soils occur over basalt bedrock with a mantle of sandy pumice volcanic ash. Due to the volcanic ash, the soils tend to be fragile and are susceptible to wind and water erosion when not adequately protected. Soils are composed of clay, silt, and sand."¹⁹

The Oregon State Engineer, John Dubuis, described the character of the soil in the 1914 report to the Oregon Desert Land Board as "disintegrated volcanic rock intermixed with volcanic ash, sandy, and silty loam."²⁰ "Dykes of cooled lava, caves, and pumiceous deposits occur here and there over the project."²¹

In *Geology of Oregon*, Elizabeth and William Orr and Ewart Baldwin explain: "The Deschutes-Columbia River Plateau is predominantly a volcanic province...Geologic events in the Deschutes-Columbia province took place on a grand scale. Immense outpourings of lavas during the Miocene created one of the largest flood basalt provinces in the world, second only to the Deccan Plateau in India."²² Volcanoes erupted particularly near Bend and southward. From volcanoes near Bend and perhaps from local vents elsewhere, very liquid olivine-basalt lava flowed great distances northward and in places spilled into the valleys of the Crooked and Deschutes River. This basalt covered most of the area in Deschutes County east of the Deschutes River.²³

The Deschutes River is the Source of Water for Irrigation.

The water for the Central Oregon Canal is diverted from the Deschutes River at elevation 3,758' near the southern city limits of Bend in Township 18 South, Range 11 East, Section 13 W.M. (T18S, R11E, Section 13). The diversion point was about four miles south of the historic downtown and five miles west of the historic district when it was constructed. The 252-mile long Deschutes River is a major tributary of the Columbia River. The Deschutes River flows north from Little Lava Lake in southern Deschutes County, about 23 miles southwest of Bend, to the Columbia River, near Biggs Junction. Over-allocation of the river water has been a constant problem for the past 115 years, requiring several rounds of litigation followed by cooperation among the irrigation districts and water right holders, and construction of federal water storage reservoirs to augment seasonal flows.

Important sources of supplemental water for irrigation are the Crane Prairie Reservoir (42 miles southwest of Bend) and the Wickiup Reservoir, (60 miles southwest of Bend), both located west of La Pine in southern

¹⁹ Deschutes Soil and Water Conservation District, *Deschutes County Rural Living Handbook*, 2011, page 16.

²⁰ John Dubuis, Report to Desert Land Board, 1914, p 9.

²¹ *ibid*

²² Orr, Elizabeth L. and William N., and Ewart M. Baldwin, *Geology of Oregon*, (Dubuque: Kendall/Hunt, Fourth Edition, 1992), 121; William N. Orr, Professor Emeritus of Geology at University of Oregon, director of the Condon Collection, and Elizabeth L. Orr, collections manager of the Condon Collection at the Museum of Natural and Cultural History at the University of Oregon. Both received PhDs in Geology. In Memorial to Ewart M. Baldwin, University of Oregon, Department of Geology. Ewart M. Baldwin received a PhD in Geology and was Professor of the Department of Geological Sciences at the University of Oregon from 1947-1980.

²³ Natural Resources Conservation Service, *Soil Survey: Deschutes Area*, (Series 1945, No. 2, U.S. Department of Agriculture, Soil Conservation Service in Cooperation with Oregon Agricultural Experiment Station, Washington: Government Printing Office, December 1958), 72-73.

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Deschutes County. The source of the Deschutes River is 8.4 miles west of Crane Prairie Reservoir. The Deschutes River flows in and out of each reservoir. When full, Crane Prairie Reservoir, built in 1922 and rebuilt by the Bureau of Reclamation in 1940, covers an area of seven square miles.²⁴ Construction began on the Wickiup Reservoir in 1938 as a Civilian Conservation Corp Project and it was completed in 1949. It is the second largest reservoir in Oregon and it holds 53,300 acre-feet of water and covers 4,940 acres.²⁵ Water from the reservoirs is stored during the fall and winter and is released to augment flows in the Deschutes River and to meet water allocations during irrigation season, including water for the Central Oregon Canal.



Diversion gate and fish screen at the eastern bank of the Deschutes River and the above-ground pipe conveying water for the Central Oregon Canal, at the southern edge of Bend.²⁶

DESCRIPTION OF THE CENTRAL OREGON CANAL

The diversion gate at the Deschutes River is southern Bend is in its historic location but was rebuilt in 2001 to include a fish screen to prevent fish from entering the canal. Nearby, some of the diverted water flows through the Siphon Power Plant, built in 1989, that produces 5.5 megawatts of power that Central Oregon Irrigation District (COID) sells to Pacific Power. The irrigation water is conveyed by a non-historic pipe that replaced the original 1903 wooden flume for the first 6,261 feet of the irrigation system. It then continues into an 11' diameter, 3,000' long pipe that was installed in March 2018. The canal winds with the relatively flat rocky terrain in a northeasterly direction for about seven miles inside Bend City limits, going through densely-developed residential, commercial, and industrial areas where it provides water to urban users with water rights.

At the eastern Bend city limits, the canal flows through small-acreage hobby farms with pastures for the first two miles, then through hills and larger parcels that are partially cultivated or are scrub land. East of Gosney Road, many parcels of rocky scrub land that are each over 80 acres in size and managed by the BLM are interspersed with privately-owned parcels that are generally between 10 and 40 acres, with portions under cultivation and irrigation. This pattern of dry native vegetation on rocky, unirrigated federal land, interspersed with irrigated private land, continues to the end of the canal system.

The COC turns north 16 miles east of Bend where it encounters the sandy prehistoric riverbed and volcanic rock formations of the Oregon Badlands Wilderness Area, owned by the federal government and managed by the BLM. From there, it follows the Dry River Canyon and enters the Alfalfa area, which appears to be an irrigated oasis in the desert. It continues north into Crook County to the community of Powell Butte. There, it

Commented [HC2]: Bureau of Land Management (BLM)

²⁴ Lewis L. McArthur, Oregon Geographic Names, Sixth Edition, 1992, pages 216, 217, 905.

²⁵ Robert Autabee, Deschutes Project, Bureau of Reclamation, 1996, pages 1-12

²⁶ Google earth photo May 2017.

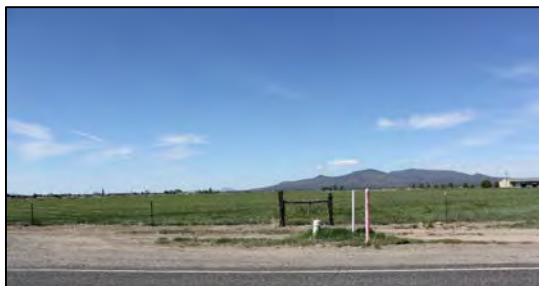
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winds through hilly land to its terminus northwest of Houston Lake and Little Houston Lake. The main canal ends at a large pond at T14S, R14 E, Section 26, on SW Lark Meadow Lane near Lark Gardens Cattle Ranch,



View from the center of the Alfalfa Community looking north from Alfalfa Market Road toward Powell Buttes. ²⁷

Powell Butte, just south of the Crooked River and Dry River, elevation 3057. (See Figures 1, 7 and 8.) The elevation at the diversion point is 3,758' and is 3057' on Lark Meadow Lane. The canal drops about 701' in elevation to its end. It drops 736' to its low point near the ditch serving Houston Lake at elevation 3022, allowing the water to flow entirely by gravity.^{28 29 30}

Unlike the COC in the historic district, the COC west of Ward Road has some piping, intermittent low berms; a flatter, shallower bed; and it has a more consistent profile as it flows through flatter terrain. The COC east of the district is more consistent, flatter, progressively smaller and has sparse rock once it arrives at Alfalfa. Berms and rip rap are rare east of Dodds Road.

Commented [HC3]: Unsure why this paragraph is included, as it is describing the canal outside of the Historic District.

DESCRIPTION OF THE CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD – GOSNEY ROAD SEGMENT)

Historic District Boundary and Dimensions

The Central Oregon Canal Historic District (Ward Road -Gosney Road Segment) is about 7.75 miles northeast of the canal's diversion point at the Deschutes River. It is located 0.75 mile from the eastern Bend City limit line in Deschutes County. The nominated area in the historic district includes the length of the Central Oregon Canal within the west half and the northeast quarter of Township 18 South, Range 12 East, Section 1, W.M.; the northwest quarter and east half of Section 6 and the southwest quarter of Section 5 and the northwest quarter of Section 8 of Township 18 South, Range 13 East, W.M. (See Figures 2, 3, 11, 12 and 14a-c.) The COC Historic District begins at the Ward Road Bridge. Its western boundary is the eastern edge of the Deschutes County right-of-way for Ward Road, as it crosses the canal. Ward Road runs north-south along the western section line of T18S, R12W Section 1. The historic district ends at the Gosney Road Bridge. Its eastern boundary is the western edge of the Deschutes County right-of-way for Gosney Road, as it crosses the canal. Gosney Road generally follows the north-south midsection line through Sections 5 and 8 of T18S, R13E.

The northern and southern boundaries of the historic district are lines drawn 50' on either side of the centerline of the COC, establishing a 100' wide corridor. The 100' total width of this historic district is adequate to include the main canal and its embankment and all associated irrigation features that are necessary to deliver the irrigation water to the patrons, direct it out of the canal to waste land in an emergency, and to store it in

Commented [HC4]: Is this referencing the ID's right-of-way? What is the ID's ROW width through the Historic District?

²⁷ Photo by Patricia Kliewer, May 22, 2017.

²⁸ Energy Trust of Oregon, Inc. Open Solicitation, Juniper Ridge 3/27 MW Hydropower, January 23, 2008, page 1.

²⁹ Ibid.

³⁰ Google Earth 2014 web site.

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adjacent irrigation ponds. The nominated segment of the canal is approximately 18,013' (3.4-miles) long, as measured down the centerline of the canal. The nominated district includes just over 41 acres.

The nominated segment meets the MPD requirements for the methodology that determined the boundaries of the historic district. The 3.4 mile length is of sufficient length to encompass a complex segment of irrigation system components ~~with high historic integrity~~. The MPD describes the typical system. It says:

"In their entirety, Oregon's irrigation projects consist of complex systems that can span up to several hundred miles and often comprise thousands of individual resources...They are typically far flung, spanning multiple political jurisdictions (i.e., crossing state, county, and/or municipal boundaries) and management jurisdictions (...), and their size and extent make it difficult to view a system in its entirety on the ground. It is also common for different parts of an irrigation system to possess highly varying levels of integrity. A nominated property therefore, is not required and should not be expected to contain all of the property types and subtypes summarized in this section or the entirety of an irrigation system and would only need to contain a concentration of resources sufficient to convey its historical significance."³¹

The components (resources) of the irrigation system in the historic district include the 3.4-mile long main canal with its high level of all aspects of integrity, a 215'-long concrete tapered chute and stilling pond, remains of a 305'-long wooden flume, turnouts (headgates) and associated headwalls, pipes and weirs to three laterals and 16 turnouts to irrigation ditches, two metal catwalks across the canal with associated metal checks, other crude rock or asphaltic concrete checks that are not visible when the water is flowing, a corrugated metal pipe that delivers water across the canal to a ditch, and a set of three emergency water discharge gates and associated concrete headwalls and corrugated metal pipes. (See Figure 5.) The nominated segment contains a concentration of resources in a highly functioning irrigation system segment that is sufficient to convey its historical function and significance. The canal is delivering water to users surrounding the segment and for 36 miles downstream and to 25,257 acres through its delivery system. One can understand the purpose, function and history of the irrigation water delivery system by observing the resources in the nominated segment. The group of resources together convey historical significance as a coordinated irrigation system. In the context of this nomination, the MPD uses the term "property" to mean "nominated segment". The MPD states:

"A property nominated to the National Register under this Multiple Property Documentation may comprise all or part of the conveyance system of an irrigation project. In most cases, a nominated property is likely to be a historic district consisting of a dam, canal, or lateral/ditch as its "principal resource" with other resources from the three property types categories as contributing elements. The extent of a property and the quantity of resources that it contains will depend on the property's integrity and its ability to convey its historical significance."³²

The MPD describes setting the boundaries of an historic district:

"Because of the systemic nature of irrigation facilities, it is anticipated that most properties associated with irrigation projects will be nominated for National Register listing as a historic district. To qualify as a historic district, such a property (whether an entire irrigation project or a representative portion) must contain a significant concentration or linkage of resources united historically by plan, function, or physical development. This collection of resources should exist as a significant, distinguishable entity, although its component parts need not possess individual importance. These elements would be considered the historic district's contributing resources. As contributing resources, they must have been constructed together or within a defined period of significance and must relate to one or more of the historic contexts associated with the irrigation project. As many property subtypes identified in this section are generally perceived as "secondary" contributing elements of a larger system and not as a principal resource, the classification of a property associated with an irrigation project as a historic district provides an appropriate level of recognition for many such resource types."³³

³¹Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-33

³²Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-34

³³Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-35

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“Contributing resources should always retain association with a principal resource (such as a main canal or lateral) that represents the historical significance of the property. The inclusion of a principal resource is required if the historic district consists of only part of an irrigation project. The type, size, or length of the principal resource and the number of contributing resources (i.e., both principal and secondary) included in such a nomination may vary, as long as the resources together sufficiently represent the historical significance for which the historic district is nominated. For example, a short length of canal or lateral could serve as a nominated historic district’s principal resource and would be considered of sufficient length, if the historic district also included other principal or secondary resources, such as the segments of one or more laterals, headgates, check structures, or other appurtenant features, that together adequately represented an irrigation project’s function and historical significance. The inclusion of a longer canal or lateral segment would be necessary, if few contributing resources were present in the nominated historic district, and more were needed to represent these qualities.”³⁴

The nominated segment meets these guidelines and is of sufficient length to include six of the eight types of water conduit/conveyance structures listed in the MPD: the primary or principal resource – the main canal, and secondary resources including laterals/ditches, pipes/pipelines, flumes, chutes/raceways, and drains. It does not include two types of structures: a tunnel or a siphon. It does include many flow control devices: headgate or turnouts, check structures, a wasteway, weirs, and weir boxes.³⁵

Roads Around the Historic District

The historic district is about a third of a mile south of US Highway 20. Ward Road is a two-lane paved county road on the west side of the historic district. The Ward Road right-of-way and the non-historic bridge over the canal at Ward Road are not included in the historic district. Gosney Road is a two-lane paved county road on the east side of the historic district. The Gosney Road right-of-way and the non-historic bridge over the canal at Gosney Road are not included in the historic district. Bear Creek Road is about a tenth of a mile north of the district and is a two-lane paved road that was the original primary east- west road from Bend to Powell Butte and Prineville in the historic period. Teal Road, that T’s into the historic district, is a one-lane dirt road.

Commented [HC5]: Is this discussion of features **outside** the District even necessary?

Elevation and Water Flow in the Historic District

Because the water in the canal flows by gravity, drops in elevation are important to move the water and were a factor in determining the necessary placement and size of the canal. Slow-moving water is caused by flatter terrain. The canal is generally narrower in fast-moving places, due to larger drops in elevation. The elevation at the west end of the district is 3,658 feet above sea level. The elevation at the east end of the district is 3,608 feet.³⁶ The water in the canal drops 50 feet as it flows through the historic district, matching the average 15-foot drop in elevation per mile for the entire canal.³⁷ The canal in the district carries nearly the full amount of water, 530 cubic feet per second, diverted from the Deschutes River, with only the ‘A’ Lateral being upstream. The ‘A’ Lateral diverts a small volume of water away from the main canal before it reaches the historic district. The canal in the historic district has no straight-a-ways and is characterized by a significantly winding canal bed that flows just 2.5 miles east, as the crow flies, during its 3.4-mile length. It curves north toward Bear Creek Road for nearly a half mile and then curves southeast for a mile toward Gosney Road.

Rocky Canal Bed and Tall Embankments in the Historic District

A distinctive feature of this segment of the COC is that it winds through gently rolling hills that are along the southern edge of the plateau that is irrigated by the COC. Because it is uphill, the land immediately next to the canal on its southern side is irrigated by water from a canal further south, the Arnold Canal, a component of the Arnold Irrigation District. The water passing into the nominated segment of the COC irrigates land north and

³⁴Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-35

³⁵Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-32

³⁶Google earth, 2017.

³⁷Elevations taken from Google Earth and Figure 6.

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east of the segment. The COC in the historic district is the typical trapezoidal shape found in the first half of the canal, but its interior side slopes display an unusually variable shape, undulating and varying in width from steep, near-vertical edges to gradually sloped 15' wide sides, at the toes, the point where the side slope meets the canal bed.

The rocks in the COC vary greatly in size from football-sized field stone, to 2' to 3' wide riprap, to immovable boulders, to basaltic lava flows that cover the entire base of the canal and extend beyond the edges of it. The surveyors staked the canal route on the edge of a hillside, keeping it as high on the hillside as they could possible, resulting in the need for unusually tall berms on the downslope side outside edge that are the tallest on the entire canal. Flumes bridged a 305'-long low point and a 215'-long lava tube. Today, the historic challenges and methodology of construction, which will be further described in Section 8 of this nomination, are easily observed in the character and appearance of the canal. Rock fractured by picks and blasting, and high places where soil was scooped out by Fresno scrapers as it was needed to form embankments are visible in the district. The district is unique in that it has a character-defining uneven bed and highly irregular width, depth, slopes, and cuts, and intermittent embankments. Intermittent, extensive, impervious lava flows form the bed in about a fourth of the length of the district. Much of the bed holds pools of standing water year-around, providing habitat for water plants, young fish and crawfish.

The widths between the sides of the canal at daylight, where the top of the water meets the sides, is typically 45-60 feet, but varies from 33.8 to 78.1 feet. The bed is also undulating and irregular in depth, varying from 1.3' to over 9' at the deepest points. The bed is far from flat. Typically, low points are in depressions where rock was blasted out, while high points are at the tops of lava flows or large rocks left in place during construction.



Looking southeast across lava flows and loose rock that was moved by the flow of water in the canal bed. ³⁸

Riprap was placed haphazardly on the flatter inside slopes of the canal bed, typically on the outside turns, to prevent erosion. Fifty rocks with 2.25" diameter drill holes that were used to place blasting power to blast the solid rock were noted in the canal during the survey of the historic district. Excess 3-4' wide rocks that were not needed to construct the embankment are piled and scattered in the fields, near the uphill side of the COC. Smaller blasted rock was left scattered across the canal bed where some has moved into piles due to the force of the water over time. The riprap varies in size from 6" to 36" in width, and much of it appears to have fractured, unnatural faces showing the extent of the blasting and picks breaking it up in 1905 and again when it was widened in 1907 and 1914.

The COC in the historic district is on the northern edge of rolling hills. Bear Creek Road, visible below the district, is on flat terrain. The elevation rises 100' in a half mile to the south, at the intersection of Ward and Stevens Roads. It rises another 100' to Rickard Road. The elevation rises 4,000 feet in the next 23 miles south of the historic district to Paulina Peak in the Newberry Crater. Being at the very northern edge of the hills, the bench under the COC in the historic district slopes down from south to north and from west to east

Commented [HC6]: This nomination is based on criteria A, not criteria C (characteristics of design, construction), so why expound on construction methodology in Section 8?

Commented [HC7]: Undulating canal floors, irregular side walls, etc. due to geology, topography in the region is not unique to the Historic District, the CO Canal, or even COID - The canals that traversed this country all faced the same challenges in construction (NUID, Arnold ID, etc.).

Commented [HC8]: Not year round - only when irrigation water is not actively flowing, or outside the irrigation season

Commented [HC9]: Reference?

³⁸ Photo by Patricia Kliewer taken on October 31, 2017.

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Most of the canal in the historic district follows a diagonal slope, therefore, the canal was cut into the land on the high side and intermittent embankment were created on the low side, up to 12' tall by 27' wide, to hold the water in the canal. They form most of the northern side of the canal and form both sides of the canal near the eastern end of the district.

The historic district begins in flatter terrain at Ward Road, and the berms are not necessary for the first 100'. Both sides are cut into the generally flat terrain at that point which is consistent with the canal in flatter land west of the district for several miles. But, as the canal runs east of Ward Road, the terrain drops off on the northern edge, and berms become progressively taller to form the northern side of the canal. For most of the length of the canal in the historic district, the canal bed was formed by crews cutting the south side and dragging the excavated materials to the north side to form the embankments. The north berm varies in width from 14' to 27' wide, with shorter berms being narrower and the taller berms being wider. The median berm width is 18'. In several locations in the district, the canal crosses flatter areas and is not on a diagonal slope. In those places both sides of the canal were cut into the existing terrain and are representative of the typical sections of most of the COC. The top of the embankment on the outside edge is smooth and solid, showing the compaction of layers of rock and soil that was done to make the canal strong enough to hold swiftly-flowing water. The outside edge of the embankment is not covered with rock or riprap. Native plants grow sparsely on the embankment and there is little erosion, and orchard grass covers some of it that is watered by irrigation sprinkler overspray. (See Photo 6/20.)

Ditch-Rider Road

The ditch rider road is ~~not a structure an associated feature that generally parallels the canal and is used by the ditch rider/patrolman but is instead the location that a horseback rider road near the canal to check on its condition, to adjust headgates to laterals and ditches, and to make repairs.~~ Since motorized vehicles have been used by irrigation district staff for their inspections and maintenance, parallel tire tracks reduce vegetation where trucks are driven along the canal. An approximately 12' wide strip on the northern embankment and through the native terrain running the full length of the canal in the historic district has parallel tire tracks through sparse native vegetation. The ditch rider road is intermittently improved with red or brown crushed cinder rock to reduce the growth of native ~~and invasive~~ plants. Green metal gates at each end of the historic district control vehicular access along the ~~canal-ditchrider road and canal~~ from Ward Road and Gosney Road and discourage unauthorized ~~motor vehicles entry~~. The parcels of land underlying the ditch rider road, embankments and canal are owned ~~in fee~~ by 43 private and 2 public parties.³⁹ One gate is next to the Ward Road Bridge and the other is 0.1 mile west of Gosney Road. Two more green metal gates along northern fence lines allow the COID staff to access the ditch rider road from Bear Creek Road at Laterals 'B' and 'C'.

Commented [HC10]: Its? The canal condition?

Commented [HC11]: Not really necessary info. Since motorized vehicles have been used for decades



Looking northeast from ditch rider road to the 'B-1' Lateral and irrigated horse pasture on Allan S. Boss's farm.⁴⁰

³⁹ List of property owners provided by the Oregon SHPO, August 2017.

⁴⁰ Photo by Patricia Kliewer, May 26, 2017.

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Parcels in the Historic District, Subdivisions and Ranches

The western 1/4 of the historic district is located in rural residential subdivisions. The lots in various phases of the Dobbin Acres subdivision on the northern side of the canal were platted since 1972 and extend to the centerline of the canal. Most of the 1.5 to 3.5 acre lots have appurtenant irrigation water rights served by two headgates on the Central Oregon Canal. The terrain drops down from the canal to the flat Dobbin Road. The berm forming the northern side of the canal is higher than the roofs of houses below it. Residents can't see the canal on the hill behind them. Agricultural fencing runs along the berm to contain horses, goats, and sheep. One undeveloped parcel bordering the canal has native vegetation of juniper trees, bitterbrush, and sagebrush.

Commented [HC12]: Spell out - one-fourth

Commented [HC13]: Phases of what? Development?

South of the centerline of the canal on the western third of the district are various phases of the Arrowhead Acres subdivision, originally platted in 1966. The 1- to 7-acre lots with appurtenant irrigation water rights are served by the Arnold Irrigation District. Somerset subdivision was originally carved from a 121-acre ranch in 1976, resulting in lots of around 3 acres in size. Most of the lots in Arrowhead Acres and Somerset extend to the centerline of the canal. Some of the unfenced lots have lawn running up to the water's edge. Others have undeveloped scrub land or livestock fencing and pasture next to the canal.

Commented [HC14]: Phases of what? Construction?

At the historic one-lane wooden Bear Creek Ranch Bridge that crosses the canal, the setting changes abruptly from hobby farms and rural residential subdivisions to ranches and large parcels for the eastern 3/4 of the historic district. Generally, houses and barns are set well away from the canal and are not visible from it. Most of the parcels have water rights and are partially irrigated, as they were in the historic period. The cultivated parcels are primarily used for pasture for goats, cattle, llamas, and horses. Two publicly-owned parcels consist of undeveloped Juniper and sage scrub land.

Commented [HC15]: historic is undefined - older than 50 yrs.? Within the period of significance?

Commented [HC16]: Spell out - three-fourths

The Central Oregon Canal in the historic district crosses-bisects 43 parcels in private ownership that vary in size from 1.13 acre to 51.09 acres and two other larger parcels that are in public ownership. Some parties own more than one parcel. A 79.60-acre parcel is owned by Bend Park & Recreation District and is used for outdoor recreation and pedestrian and bike trails. A 40-acre parcel of native vegetation is owned by the Central Oregon Irrigation District for an emergency reservoir. In summary, twenty-five parcels that are crossed by the canal, mostly on the west quarter of the district, are less than three acres in size. Five parcels are between 3 and 10 acres in size. Eight parcels are between 11 and 20 acres in size. Five parcels are between 21 and 40 acres and two parcels are between 50 and 80 acres in size. Most of the properties extend to the centerline of the canal, except for some lots, such as the Turner's 15-acre parcel, the Grund's 51.09-acre parcel, and the Bend Metro Park & Recreation District's 79.60-acre parcel, extend on both sides of the canal. The recorded easements in the deeds allow Central Oregon Irrigation District, a quasi-municipal organization of irrigation water users, to operate and maintain the canal for irrigation purposes.⁴¹ (See Figures 4a.-4f. for tax lot maps of current lots).

Historic Setting

Throughout the eastern 3/4 three-fourths of the historic district, most of historic setting remains. The land was settled between 1910 and 1937. None of the original 40-acre parcels was completely cleared or cultivated due to surface rock, rock outcroppings, or lack of appurtenant water rights. (See Figures 11, 12 and 14a-c.) Water rights were awarded only for the portion of each parcel that could be irrigated and cultivated. Some of the non-farmable parcels were not included in Segregation List 6. (See Figures 9 and 10 for Carey Act Lands along the canal in this area.) Some of the uncultivated land adjacent to beside the district is not farmable due to poor shallow volcanic soils and lava flows near the surface and the hilly terrain. Section 8 will describe the settlers and which parcels were cultivated, and which were never sold. (See Figures 14-20.) The cultivated and

Commented [HC17]: Older than 50 yrs? Within the period of significance?

⁴¹ Memorandum to Deschutes County, 2014, from Law Office of Bruce W. White, based on Deschutes County deeds for each property in the district at the Deschutes County Clerk's office.

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irrigated parcels are used today for vegetable gardens and pastures for horses, sheep, goats and cattle, and a fruit orchard. The historic irrigation ponds and ditches ~~remain and~~ continue to be used.



The COC in the historic district in winter, through uncultivated, flat, scrub land in public ownership. There are cuts into the terrain on both sides, resulting in no berms, and standing water. Photo looking east. ⁴²

METHODOLOGY USED to INVENTORY and DATE STRUCTURES

The preparers of this nomination acquired extensive first-hand knowledge of the entire COC and the historic district. The team includes a historic preservation planner, a retired USGS hydrologist, and a registered civil engineer along with a dozen long-term owners who have day-to-day observations and use the canal and its infrastructure in the district, dating back 50 years. Loretta Hadley is the granddaughter of an original homesteader, Dragan Mirich, and is the current owner of 16 acres of pasture that formerly was the Paul S. Hackett Turkey Ranch. She and the others shared photos of the canal and use of the land for the past 100 years.

The team walked beside the canal along the ditch-rider road for five miles at the inception of the project, surveying it between 27th Street in Bend on the west to beyond Gosney Road on the east to determine the boundaries of the proposed historic district. Aerial photos were consulted for the next 2.25 miles and the team hiked five miles of the canal in the flat terrain east of the historic district between just south of Highway 20 to Dodds Road and Walker Road. The 'I' Lateral was hiked from its diversion gate near Dodds Road along Reynolds Pond and Zell Pond to Alfalfa Market Road. The entire 47 miles was observed and photographed twice from the Deschutes River to the Crooked River by driving along it where that was possible ~~and getting out~~ and photographing it at all road overpasses and viewpoints. The nominated ~~(but not listed)~~ segment at Brasada Ranch was walked and photographed twice. Files at Bowman Museum in Prineville, the Deschutes County Historical Museum in Bend, the Oregon State Archives, historical government reports and national register nominations were researched.

Once the historic district boundaries were set, the professional team surveyed and photographed the district a half a dozen times in all seasons, including four times while the water was flowing in it and twice when it was not. Inspections of the canal, the irrigation infrastructure and all structures within the historic district were carefully made and noted. Observations were recorded of surrounding land uses, irrigation laterals, ditches, property and pasture fences, seasonal crops, irrigation ponds, barns, and livestock. Lateral 'B' and 'C' were followed to their ends.

Two meetings were held with the of the Bend Park & Recreation District's Executive Director, Don Horton and other park district planning staff to discuss year-around public parking and public access to the historic district, including developing trails from possible parking areas and access points on Ward Road and Gosney Road through the 80-acre parks parcel within the historic district.

Commented [HC18]: Is this discussion even necessary? Why wasn't RLS data used?

Commented [HC19]: Was the Reconnaissance Level Survey data looked at? It was completed in conjunction with the MPD, and a resource that should not have been overlooked. Also, no mention of research at COID, another valuable research opportunity.

⁴² Photo taken in eastern half of the historic district by Patricia Kliever, March 3, 2017.

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Field Survey of the Canal in the Historic District

To determine the character-defining features of the canal in the historic district and to survey all structures, exacting and systematic fieldwork was undertaken on April 3, 2017, using methodology previously used by the professionals to survey historic linear resources. The same survey methodology was used for the nomination of the Pilot Butte Canal Historic District (Yeoman Road-Cooley Road Segment), listed on the NRHP on Feb. 6, 2016.

During the survey, two members of the team walked in the canal bed and five members walked bedside it, three on the north side and two on the south side, for the entire length of the historic district. The crew measured and recorded the altitude, latitude, and longitude at data collection points in 300-foot intervals. Each of the 71 data collection points was identified by a section ID number and its corresponding GPS coordinate. Using the Garmen GPS location, the elevation of the northern edge of the canal was recorded in the table. At each data collection point, the team also measured and recorded the shape and size of the canal, the width of the north berm, the width of the canal at daylight (top of water line), the width at the canal bed between the toes at the bottom of the canal, the width of each interior side slope, the vertical and horizontal positions of the low and high points in the highly uneven bed, the depth at the north toe and south toe, and the location of each headgate and structure. Unusual features were also noted, such as stacked rock on a side slope at three sharp turns. All associated structures were noted. The location of historic features that display construction methods, such as rocks retaining drill holes, were photographed. Alterations were noted. Photos of the canal were taken at each data collection point. The table of some of the data collected at the 71 data collection points is presented as "Figure 21".

In addition to the measurements entered in the data table presented as Figure 21, the surveyors determined the overall characteristics, such as the canal's irregular trapezoidal shape. The top width of the canal at daylight and the position and width between the north and south toes define the irregular trapezoidal shape. The top width of the canal at daylight ranges from 34' to 78', averaging around 50'. The interior angle of the canal, measured between the toes, ranges from sheer vertical such as at section 167 where it is only 1.5 feet deep, to a slope of 19.5 feet horizontal from the edge of the canal at a depth of 9 feet, at section 138. The depth of the canal varies from 1' to 9', averaging around 4' deep. The canal was built in irregular profiles and various depths. The north berm varies in width from 14' to 27', with shorter berms being narrower and the taller berms being wider. The median berm width is 18'. At points in which north berms were observed, they were measured, and they varied from 1' to 12' tall.

Dating the Structures, Laterals, and Ditches

The intensive level historic resources survey of the Central Oregon Canal Historic District (Ward Road – Gosney Road Segment) consisted of a series of six field inventories and inspections of the irrigation infrastructure, ditches, laterals, and irrigation ponds as well as any structure within the 100-foot wide historic district and adjacent to it. Recordation consisted of inspecting the integrity of each identified resource, establishing its estimated construction date, collecting basic information about its design and construction, photographing each item, and evaluating integrity. Estimated construction dates were determined using a combination of research methods. Studying historic maps; reading information in the water rights cases at the Deschutes County Circuit Court, reading all of the articles about the irrigation system's planning, development and promotion in each issue of the local newspaper between 1903 and 1921; and reviewing the detailed historic state engineer reports between 1905 and 1921 and other documents at the Oregon State archives provided information about the segment's and associated laterals' and ditches' construction and widening, dimensions, water loss and flow data. The sources recorded data by the location of headgates and bridges, thereby helping to date them. The historical records provide data on when structures were built, when water rights were awarded, and when the resulting delivery ditches were constructed by the settlers. This was supplemented by the analysis of historic and contemporary maps, which provided side by side comparisons of changes over time and showed the development of laterals and ditches. For instance, the 1962 USGS Bend

Commented [HC20]: Is this much detail really needed for a NR nomination? Suffice to just say that a field reconnaissance was conducted to gather data to characterize the canal, etc. Seems to be overkill; field survey was previously done for the RLS, yet it doesn't appear to have been used to supplement the authors' research. Section H of the MPD discusses identification, eval methods, including the RLS. If this document is going to be tied to and reflect registration requirements of the MPD, it should utilize the data captured as a result of the RLS/MPD

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Airport, Oregon quadrangle map shows four bridges or catwalks across the canal in the district, including the three that are currently in those locations and the fourth one that crossed the canal at Burt Chute but has since been removed.

The dates of headgates, Stearns Waste, Burt Chute, Bear Creek Ranch Bridge, and the remnants of the wooden flume were estimated through a combination of five sources: 1) construction dates of the canal and the 'B', 'B-1', and 'C' Laterals, 2) an examination of historic equipment catalogs and web sites for irrigation equipment for manufacturer information on the structures; 3) discussions with an irrigation district ditch rider; 4) oral tradition gleaned from property owners who use the structures, and who, in many cases, asked for the gates to be improved and remembered when they were installed and; 5.) comparisons with known materials and construction techniques found on other local historic canals. Dates that were carved into concrete, such as the series of gates set in concrete at the Stearns Waste, or painted on metal, were used.

Commented [HC21]: Reference? Which DR?

CONTRIBUTING AND NON-CONTRIBUTING STRUCTURES IN THE HISTORIC DISTRICT

There are 27 structures in the historic district. One is the primary structure and 26 are secondary structures. There are 12 contributing structures and 15 non-contributing structures. The primary historic structure is the main canal itself and it is historic contributing. Secondary historic-contributing structures include the concrete tapered Burt Chute, and the remains of at least 49 wooden pilings and one beam of an original wooden flume. Additionally, there are 18 hand-screw-operated slide-paddle turnouts or headgates to ditches and laterals. Each headgate that diverts water to enter ditches, sub-laterals and laterals, which may or may not be attached headwalls, or may be in a shared headwall, and associated pipes and weirs is counted as one structure. Some headgates were in use during the period of significance and are classified as contributing, while others are essential to the operation of the canal but have been constructed since that time and are non-contributing. The corrugated metal pipe set on concrete piers delivers irrigation water for a ditch across the canal is non-contributing. The historic wooden Bear Creek Ranch Bridge set on concrete piers is a transportation structure and is therefore non-contributing. A non-historic metal catwalk and check across the canal to a turnout or headgate on the south side is counted as a single non-contributing structure. Stearns Waste, a non-historic set of three headgates to pipes leading to a 40-acre reservoir that are set in one headwall and the associated catwalk and check are counted as one non-contributing structure. (See Figure 5, a map indicating the location of each structure.)

Commented [HC22]: "historic" is used many times in this section - Define "historic" - within the period of significance? Older than 50 yrs.?

Commented [HC23]: These appear to be relic/archaeological features and are not discussed/defined in the MPD registration requirements. If this nomination is going to be tied to the MPD, it needs to remain consistent with the MPD.

The Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD

The MPD under which this historic district is being nominated contains assumptions and direction for classifying the irrigation infrastructure. The applicable instructions are referenced:





"Materials — A property should retain the materials with which it was built. For some property types, the partial in-kind replacement or repair of materials does not necessarily constitute a loss of integrity. Replacement with non-original or modern materials may be acceptable if the materials are compatible, meaning they sufficiently replicate or resemble the original materials. As with integrity of design, repairs to water conduits/conveyances and the in-kind replacement of the deteriorated components of flow control and measuring devices do not constitute a loss of integrity, if the resource's materials are replaced in-kind or are compatible. Integrity considerations specific to certain property types are outlined in the appropriate description sections below."⁴³

⁴³ Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-37

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TABLE 1

| STRUCTURES IN THE HISTORIC DISTRICT | | | |
|---|---|------------------------------|-------------------------|
| Name of Structure | Photo of Structure | Historic Contributing | Non-Contributing |
| PRIMARY STRUCTURE | | | |
| Main Canal with associated embankments on either side and the ditch rider road on north side. * |  | X | |
| SECONDARY STRUCTURES | | | |
| Corrugated pipe across canal on mortared rock piers that conveys water in a ditch from one side of the canal to the other where it serves three properties. |  | | X |
| Bear Creek Ranch Bridge on concrete piers. |  | | X |
| Burt Chute and Stilling Pond. |  | X | |

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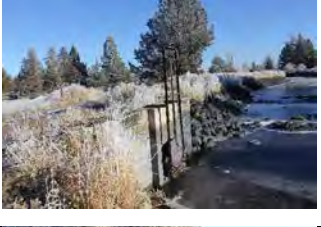


| | | | |
|--|---|---|---|
| Wooden Flume Remains |  | X | |
| TURNOUTS also known as HEADGATES Listed in geographical order, from west to east | | | |
| Headgate 1 Labeled COC 8. North side of the canal. |  | X | |
| Headgate 2 No headwall Labeled COC 9. North side of the canal. |  | X | |
| Headgate 3 Labeled COC 10. No headwall. North side of the canal. * |  | X | |
| Headgate 4 Associated metal weirs and catwalk, concrete headwall. Gate is on the south side of canal and leads to ditch that flows into metal pipe. Labeled COC 11. |  | | X |

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| | | | |
|--|---|----------|----------|
| <p>Headgate 5 Labeled COC 12. North side of the canal.</p> |  | <p>X</p> | |
| <p>Headgate 6 Associated crude concrete weir over rocks. Labeled COC 13. No headwall. North side of the canal. *</p> |  | <p>X</p> | |
| <p>Headgate 7 Concrete headwall. Labeled 'B' Lateral. North side of the canal. *</p> |  | <p>X</p> | |
| <p>Headgate 8 Non-historic concrete headwall with wings. Labeled 'B-1' Lateral. North side of the canal. *</p> |  | | <p>X</p> |
| <p>Headgate 9 In concrete distribution box next to ditch rider road at 'B-1' Lateral. North side of the canal. *</p> |  | | <p>X</p> |

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| | | | |
|--|---|----------|----------|
| <p>Headgate 10</p> <p>Non-historic concrete, angled headwall.</p> <p>South side of canal. *</p> |  | | <p>X</p> |
| <p>Headgate 11</p> <p>Non-historic concrete headwall with wings.</p> <p>Non-historic gate.</p> <p>North side of the canal.</p> |  | | <p>X</p> |
| <p>Headgate 12</p> <p>Associated crude concrete and metal weir.</p> <p>Shares headwall with Headgate 13.</p> <p>Labeled 'C' Lateral.</p> <p>North side of the canal. *</p> |  | <p>X</p> | |
| <p>Headgate 13</p> <p>Associated concrete and metal weir.</p> <p>Shares headwall with Headgate 12.</p> <p>Labeled COC 15.</p> <p>North side of the canal.</p> |  | <p>X</p> | |
| <p>Headgate 14</p> <p>Non-historic, angled, concrete headwall.</p> <p>South side of canal. *</p> |  | | <p>X</p> |






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| | | | |
|--|---|--|------------|
| <p>Headgate 15 Non-historic concrete headwall with wings. Labeled COC 16. North side of the canal. *</p> |  | | <p>X</p> |
| <p>Headgates 16, 17, 18 Associated metal and wood catwalk. Shared concrete headwall. South side of canal.</p> |  | | <p>XXX</p> |
| <p>Headgate 19 Non-historic concrete headwall with wings. Labeled COC 17. North side of the canal. *</p> |  | | <p>X</p> |
| <p>Headgate 20 Non-historic concrete headwall. Labeled COC 18. North side of the canal.</p> |  | | <p>X</p> |
| <p>Headgate 21 Newest gate, non-historic concrete headwall with wings. South side of canal.</p> |  | | <p>X</p> |

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| WATERFALLS, also known as DROPS⁴⁴ Listed in geographical order, from west to east | | | |
|--|---|---|--|
| Drop 22 |  | X | |
| Drop 23 |  | X | |
| Drop 24 |  | X | |
| Drop 25 |  | X | |
| Drop 26 |  | X | |

⁴⁴ Photos of drops and waterfalls taken by Patricia Kliewer on August 15, 2018.

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| | | | |
|---------------|---|-----------|-----------|
| Drop 27 |  | X | |
| Drop 28 |  | X | |
| Drop 29 |  | X | |
| Drop 30 |  | X | |
| Drop 31 |  | X | |
| Totals | | 21 | 15 |

- * Photos taken on December 7, 2017 by Patricia Kliewer.
- See Figures 5a and 5b for a location map of all structures and features.

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Description of Each Structure

Historic Contributing Main Canal

The principal historic contributing structure is the main canal. This segment of the canal was constructed in 1905 and enlarged in 1907 and 1914. The *Crook County Journal* newspaper reported on April 13, 1905 that the first 12 miles of the canal east of the Deschutes River were completed.⁴⁵

Comparing the canal today with historic topographic maps, descriptions and aerial photos of the area revealed that the canal in the historic district has survived nearly intact since it was last enlarged in 1914.⁴⁶ It is in the same location and its route has not been altered and its width remains the same. One point in the canal bed has undergone a non-historic alteration. Historically, an island that was annually planted with flowers by the property owner, was in rapids about fifty feet upstream of the Bear Creek Ranch Bridge. COID crews removed the island about 8 years ago. The work inadvertently exposed a lava tube that sucked in all the water from the canal along with adjacent rocks, earth and fences. The cavern took weeks to fill with dozens of truckloads of rock and concrete.⁴⁷ Upstream rocks have rolled with the force of the water to cover the repair, and its location is not visible.

The canal retains its impressive historic open, trapezoidal shape, dimensions and characteristics. It is characterized by the volcanic rock flows, native materials, rocky bed and sides, and its hurried, crude workmanship. These remain significant elements giving a unique character to this stretch of the canal. Water flowing over especially rocky areas creates rapids. (See aerial photo in Figure 2.) Intermittently, water churns, dives, and splashes over and around large rocks and rock flows. The rough, rocky characteristics of the canal and terrain are conveyed in a strong expression of the aesthetic quality of the canal. The appearance and sounds of the water in the canal during irrigation season indicate what is beneath it. Water is smooth and quiet where projecting rock is minimal, or the canal is deep, while rapids and the sound of moving water indicate dense, large rocks below, a shallow area or a sudden drop in elevation.

Engineers measured the drops in elevation, roughness, and other factors of friction, as well as the size and shape of a channel, all of which were known to contribute to either a faster velocity of water in a canal or a slower one. Known as the value of 'n', Manning's Roughness Coefficient, the 1914 state engineer's report on the Deschutes Project to the Desert Land Board commented on the rocky stretch of the canal in the district: "The values of 'n' on the main canal are found to be much larger than in the original plans, the reason being that the construction left the canal with a very rough rock bottom. On the Central Oregon Canal in the historic district, the values of 'n' are like that of the natural water channels and are the highest in the length of the canal."⁴⁸ The canal bed retains its historic roughness. The roughness of the rock bed is obvious for the entire length of the canal in the district, except for in Burt Chute, and is a character-defining feature.

The date that the 350'-long wooden flume at the east end of the historic district was removed is unknown, but historic maps indicate its presence after the period of significance. COID purchased the 40 acres nearby called the COI District Reservoir in 1932. It was the source of materials to make replacement embankments. It is therefore likely that the tall berms or embankments on either side of the canal in this location were constructed after 1937, and therefore are a major alteration. The "new" embankments were constructed with native rock and soil scraped from the COID land on the south side of the canal, using methodology and tools common at the time from the historic period. They have the same appearance as the other original embankments and have haphazardly-placed rock as riprap on the interior side slopes of the canal. The force of the water has moved riprap and rock annually.⁴⁹

Commented [HC24]: Beneath what? The canal?
The water in the canal?

Commented [HC25]: Again, really necessary? -
this nomination is based on Criteria A, not C,
so this seems to be overkill

⁴⁵ *Crook County Journal* Newspaper, April 1905, page 1.

⁴⁶ Bend Bulletin, Friday, May 13, 1904, "Water on Desert", Bend, OR

⁴⁷ Interview with Suzanne and Gary Grund, April 3, 2017.

⁴⁸ Id., pages 16-19.

⁴⁹ Interviews with Robert Stephen and Cynthia Gibson.

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Photo of the location of a former island, upstream of the Bear Creek Ranch Bridge, ca 1928, looking east.⁵⁰

Non-Contributing Bear Creek Ranch Bridge

The settlers in the area accessed their properties from Bear Creek Road, on the north side of the district. To reach both sides of 40-acre to 160-acre parcels that were crossed by the canal, bridges were necessary. In the historic period two wooden bridges were in use in the district. One was the Burt Bridge at Burt Chute, which has been removed, and the other is the Bear Creek Ranch Bridge, in the northwest quarter of T18S, R12E, Section 1. It was built around 1928 by the property owner, Mike Dragosavac, and neighbors, including Dragan Mirich. A 1962 USGS Quadrangle map shows a dirt road connected Torkelson Road to the location of the current one-lane bridge. The 65'-long and 10'-wide bridge is constructed of rough-sawn 10" by 10" lumber spanning metal "I" beams set on three historic concrete piers. Planking of 4" by 12" wood provides the level driving deck. In 1990, the current owners, Suzanne and Gary Grund, replaced 43 of the original 57 rotting 4" x 12" fir decking planks with pressure treated lumber, in kind. The new planks are attached to the spans by bolts, while the historic decking is attached with 12" nails. One of the steel beams is historic, but two steel 'I' beams were installed in 1990 to add strength. The bridge does not have any side rails. A non-historic 1" diameter white plastic water pipe is suspended from brackets along the western edge of the bridge, giving the bridge a false wavy appearance.⁵¹ The bridge is not part of the irrigation system and is a transportation structure, and, therefore, is a non-contributing structure in the historic district.

Historic Contributing Burt Chute and Pond

Burt Chute is part of the main canal and is an original concrete structure that conveys water across a lava tube. The chute and the associated pond are shown at this location on a 1911 map of the irrigation system drawn by the State Engineer.⁵² The poured concrete structure is near the middle of the historic district in the northwest quarter of T18S, R13E, Section 6. It has vertical sides of a consistent 4.8' height. It can be used to measure volume of flow. It tapers in width like a funnel and is sloped downgrade from west to east to its open end at the pond. The 215'-long structure channels a high velocity of water flow and is self-cleaning. The canal is 45' wide on the western edge of the chute where water enters the chute. The chute tapers to 13.5' wide where it drops water into the pond. The water line is at 2.8' in the chute. The chute forcefully empties into an approximately 120' wide, oval-shaped pond on its eastern side. The pond stills the waters, dispersing the high energy and velocity of water shooting out of the flume.

According to Richard Torkelson⁵³, Burt Chute was constructed to bridge a cavern or lava tube that would not hold water when the canal was built. It has the same appearance today as when he fished in the canal regularly with his brothers in the 1940s.⁵⁴ The pond remains full of water and fish year-around, regardless of whether the irrigation water is flowing. Until the fish screen was installed at the diversion point at the

Commented [HC26]: This description sounds more like a flume, as described/defined in the MPD...Stilling ponds are not included (or at least I couldn't find it) as a property type/subtype

Commented [HC27]: See comment above - based on this definition, fits more with the MPD definition of a flume

⁵⁰ Photo by Patricia Kliewer, April 3, 2017.

⁵¹ Interview with Gary and Suzanne Grund, March 2, 2017.

⁵² Map by Charles E. Strickland of T18S, R12E, redrawn in March 1949 from original May 1, 1911 and Feb. 10, 1928 maps.

⁵³ Richard Torkelson was the youngest of nine children born to Bert Torkelson, who settled on Bear Creek Road at the corner of Torkelson Road near Burt Chute in 1908. Richard Torkelson grew up near the historic district.

⁵⁴ Interview with Richard Torkelson on June 10, 2017.

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Deschutes River in 2001, this was a popular private fishing hole for neighbors. It used to be ~~teaming-teeming~~ with fish. Neighbors could catch fish in a net as they came down the chute. The Burt Chute is a historic-contributing structure in the historic district. The chute was referred to as "Burt Chute" because it was next to the bridge that accessed Amy and Philip C. Burt's 160-acres in Township 18, Range 13, Section 6 that they gradually purchased between 1909 and 1921.⁵⁵ (See Figure 14a.) Downstream of the pond, the canal narrows to 55' wide and 5' deep.



Photo looking east toward Burt Chute.⁵⁶

The Deschutes irrigation and Power Company constructed a bridge over the narrow portion of Burt Chute when it was built, to allow the ditch rider to access both sides of the chute and canal and for settlers to use. According to many interviews with families that have been in the area for fifty years, the bridge was fascinating and somewhat frightening. It looked very similar to the Bear Creek Ranch Bridge, with a wooden single-lane wooden deck and no sides. It was strong enough for farm trucks to cross. People used to ride horses to it, and watch the water rushing under them. A well-known story is that the bridge was removed after 1960 when a young lady's horse was spooked by the current and it leaped off the bridge, while she landed hard in the concrete chute. Swiftly flowing water swept her into the pond. She was able to swim out, bruised and shaken up. Many neighbors heard about the incident and wondered who was responsible for the safety and condition of the bridge, the property owner or COID, so it was removed. It is indicated on the USGS 1962 quad map.⁵⁷



Burt Chute discharges water into a wide stilling pond. Photographer looking east.⁵⁸

⁵⁵ Interview with property owner, David Turner, May 26, 2017. The Tumers have owned the property since 1996. 1910 Federal census for Crook County, OR.

⁵⁶ Photo by Patricia Kliewer, March 3, 2017.

⁵⁷ Interview with Lynn Schilling Johnson.

⁵⁸ Photo by Patricia Kliewer, May 26, 2017

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Historic Contributing Wooden Flume Remains

The 1911 state engineers map and other historic maps and evidence in the canal, indicate that a significant wooden flume was at a low point in the canal and was about 350'-long and 12' wide.⁵⁹ The remains are not visible during the irrigation season, as they are under water, but they are visible in the off season. A series of deteriorating lumber is partially buried in year-around standing water and silt. The remaining posts formed the piers and one cross beam formed part of a wooden flume that bridged the lowest point in the canal in the historic district. Forty-nine 10" x 10" piers remain, mostly arranged in rows of seven across the width of the canal. The remaining piers from east to west cover 305'. Some 12' lumber used in cross beams framing the flume remains in place, covered by water and partially covered with silt. The flume is at the eastern end of the historic district on the Diane and Robert Stephen property, in T 18S, R13 E, Section 8. The flume is indicated on historic maps drawn in 1911 and 1928. Six rows of seven vertical posts have rotted off, but the bottom portions remain in place. Several nails that are about 12" long with heads that are roughly 0.75" wide were found at this location in the canal bed. It is expected that over time, the wood will continue to rot away. The wooden flume leaked and required constant maintenance. The historic flume was between Teal Road and Gosney Road. The flume was replaced with a set of the tallest berms (embankments) in the historic district, about 1937. The rocks and soil now forming the berms were scraped from the COID reservoir property.⁶⁰ The berms were recently sealed with Bentonite clay, but most of it has washed away. The wooden flume was built in 1905 and removed in the 1930s. Its remains represent a historic contributing site within the bed of the canal, constructed coincident with the removal of the historic flume.

Commented [HC28]: An archaeol. Resource, rather than an in-use, built env. Resource - MPD does not discuss archaeological/relict features.



Looking east to six rows of seven piers and other piers protruding from the silted canal bed where an historic flume once stood.⁶¹



Looking down into the bed of the canal at a crossbeam nearly covered with silt. It is made of three boards, arranged in a box pattern and attached with nails.⁶²

⁵⁹ State Engineer Charles Strickland map on file at the Deschutes County Circuit Court in case record of water rights adjudication.

⁶⁰ Interviews with COID ditch rider Jim Hollander and Robert Stephen.

⁶¹ Photos by Patricia Kliewer, April 13, 2017.

⁶² Photo by Patricia Kliewer, April 3, 2017.

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Non-Contributing Irrigation Pipe Across the Canal Resting on Concrete and Rock Piers

A historic contributing, approximately 6"-diameter, corrugated steel pipe spans the canal near the property line between the Walden and Grund parcels, just upstream from the Bear Creek Ranch Bridge. The pipe and concrete piers were constructed and installed around 1921 to serve settlers on the north side. The corroded and dripping pipe rests on metal brackets set into three worn historic piers. The pier in the center of the canal is made of worn concrete. Two other piers, one on each side of the canal, are made of large rocks cemented together. Water enters the pipe from a 1' deep open ditch on the south side and flows north across the canal to the ditch running toward Bear Creek Road, alongside the Judith Hanson property. The water is coming from the Bear Creek Ranch ditch that begins at Headgate #4.

Commented [HC29]: Consider this structure as non-contributing, even though the piers are within the period of significance



Looking northwest to a metal irrigation water delivery pipe supported on three historic rock piers.⁶³



Irrigation water flows north into the pipe, from an open ditch and crosses the canal. Looking north.⁶⁴

Historic Contributing Turnouts or Headgates to a Sub-Lateral and 15 Ditches

There are 8 historic contributing headgates and 11 non-historic headgates. All of them are the same hand-operated screwgate style. The gates are operated by turning the metal handwheels at the top of the metal structures above water level. The wheels operate metal threaded screw lift rod assemblies that open and close by moving the metal slide gates across metal pipes in the water. The gates to the laterals are three times larger in diameter than the gates to ditches. The hand-operated wheels turn the threaded screw lift rod assemblies that slide the metal paddles in the water upward to expose the metal pipe that runs under the berms toward the laterals. The handwheels are turned the other way to lower the paddle to cover the pipe to decrease or end water flow. Only the handwheels and tops of rods are visible when water is flowing.⁶⁵

Commented [HC30]: As in outside the period of significance, or for some other reason?

⁶³ Photo by Patricia Kliewer, November 7, 2017.

⁶⁴ Photo by Patricia Kliewer, November 7, 2017.

⁶⁵ According to the MPD, "To be considered contributing properties, flow control and measuring devices must exhibit sufficient integrity to successfully express the historical role and function of their property type within the overall nominated property. The in-kind replacement or reconstruction of component parts for the purposes of repair and regular maintenance should not necessarily be considered a loss of integrity, and a resource does not need to remain in its original use. Headgates, for example, do not need to retain

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Non-Contributing Replacement Structures at Stearns Waste

A non-historic catwalk crosses the canal near the southern end of Teal Road. The 45'10"-long and 22"-wide catwalk was installed in 1988 to allow the ditch rider to rapidly access the three wastegates on the south side of the canal in an emergency. The headgates are the same style as all 21 headgates in the historic district. They are hand operated by metal wheel controls, threaded screw lift rod assemblies and metal slides across corrugated steel pipes. The set of three 40" diameter pipes in a shared board-formed, poured concrete headwall with a flat face and wingwalls were also installed in 1988 on the south side of the canal to allow COID staff to drain the canal in an emergency. The set of three large pipes convey water downhill through corrugated metal pipes under the 20' wide and 19' deep south berm to a drainage ditch on COID land. The pipes allow the ditch rider to divert the water from the canal into the low portions of COID's 40 acre "reservoir" and a portion of the 11.3 acres to the east owned by Diane and Robert Stephen

Commented [HC31]: Outside the period of significance

Stearns Waste is named for Sidney Summer Stearns (1856-1923), a well-known cattle rancher. In 1920 Stearns purchased the original settler's, Norman Weyand, 40-acre parcel in a Central Oregon Irrigation Company mortgage lien foreclosure proceeding. He was the highest bidder of \$2,673.58 at an auction at the courthouse door. Stearns widow, Francis Stearns, sold the 40 acres of scrub land to COID in 1932. COID has used it as an emergency reservoir since then.⁶⁶ (See Figures 14a, 18, 19, and 20.) Typically, Stearns Waste is used to drain the canal when the canal is damaged downstream, and water is flooding out of the canal bed, or when ice dams during winter stock runs back up the water, causing it to overflow the canal banks. Although the intake gate at the Deschutes River is closed as soon as possible in an emergency, it takes a full day after the intake is closed to empty the canal, if the waste gates are not opened. The tremendous volume of water conveyed by the canal can quickly flood personal property and roads. A series of waste gates are spaced along the canal and are used to safely and quickly drain the canal downstream.

The current Stearns Waste structures replaced a set of three historic headgates, installed around 1933, in the same location. The historic gates were similar metal wheel controls, threaded screw lift rod assemblies and metal slides across corrugated steel pipe, but they were smaller in diameter than the current gates that replaced them. While they are an important part of the irrigation system, because they were installed in 1988 to replace the earlier set, they are classified as non-historic, non-contributing

Commented [HC32]: Outside the period of significance



Looking south at Stearns Waste, three headgates and pipes to a reservoir on the south side of canal.⁶⁷

all five of their basic components in original condition (i.e. headwall, stem, paddle or slide, frame, and handle) to be considered contributing resources. The reconstruction of a headgate's metal frame or the in-kind replacement of paddles, slides, or stems due to deterioration is an expected maintenance activity and should not constitute a loss of integrity. In contrast, a headgate would lose integrity if its original headwall or its metal gate structure were completely removed or replaced." Carey and Reclamation Acts irrigation Projects in Oregon, 1901-1978 MPD, page F-64.

⁶⁶ Deschutes County Deeds, Metzger Maps, interview with Richard Torkelson and interview with ditch rider Jim Hollander.

⁶⁷ Ibid.

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The headgates at Stearns Waste can discharge water from the canal to COID scrub land in an emergency.⁶⁸

Non-Contributing Catwalk at the Headgate to the Bear Creek Ranch Ditch

Another green metal catwalk with handrails and a wood plank deck spans the canal between the Bonneville Power Administration's overhead transmission lines and the Bear Creek Ranch Bridge. It is 67'10"-long and 22"-wide and is adjacent to the headgate on the south side of the canal that opens to divert water from the main canal into the irrigation ditch that flows to the 51.09-acre Bear Creek Ranch. The ditch flows into the corrugated metal pipe previously described that conveys the water across the canal to three patrons on the north side of the canal. It is listed in Table 1 as Headgate #4. The catwalk, concrete and metal diversion weirs, and concrete headwall were installed after 1937. The headgate, weirs, headwall and catwalk are counted as one structure. When the catwalk and water diversion weirs were installed in the 1960s, the historic wooden headwall behind the headgate was replaced with a board-formed concrete headwall. Board formed concrete and metal weirs that partially span the canal raise the water level to divert water into the open headgate. The headgate to the ditch is historic and is operated by the metal wheel control, threaded screw lift rod assembly and a metal slide across a corrugated steel pipe.



Catwalk, weirs, and headgate to Bear Creek Ranch ditch, looking northeast.⁶⁹

Two Historic Contributing Turnouts or Headgates to Laterals

Two metal headgates to laterals are historic contributing structures. They are listed in Table 1 as Headgates #s 7 and 12. The historic contributing headgates to the historic 'B' and 'C' Laterals are attached to circa 1960, poured-in-place, board-formed, concrete headwalls that replaced wooden headwalls. They allow irrigation water to enter 1.5' diameter corrugated steel pipes that dump water into laterals on the north side of the ditch rider road to convey water north for several miles, branching out into smaller ditches. The 'B' Lateral crosses under Bear Creek Road and US Highway 20 and continues north to the intersection of Nelson Road and the Powell Butte Highway. It serves the Bend Airport and some farms around it.

Commented [HC33]: Does COID have numbering system for headgates? Does the RLS have a numbering system for this property type? If so, suggest, for sake of consistency, utilizing that numbering system for headgates throughout the Hist. District

⁶⁸ Photo by Patricia Kliewer looking south into Bend Park & Recreation Department property on April 3, 2017.

⁶⁹ Photo by Patricia Kliewer, May 26, 2017.

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Screw assembly to operate the headgate to the 'B' Lateral looking east. .⁷⁰



Water flows under the north berm in a metal pipe to the 'B' Lateral, looking north toward Bear Creek Road.⁷¹



Old headgates to 'C' Lateral and a ditch named COC 15 in a shared non-historic board-formed, concrete headwall with wings, looking north from center of canal bed.⁷²

⁷⁰ Photo taken on April 3, 2017 by Patricia Kliewer.
⁷¹ Photo taken on May 26, 2017 by Patricia Kliewer.
⁷² Photo by Patricia Kliewer, April 3, 2017

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'C' Lateral looking north from the canal is crossed by a pedestrian catwalk. A solar panel is on the pole.⁷³

The 'C' Lateral crosses under Bear Creek Road, US Highway 20, Alfalfa Market Road, McGrath Road and Stenkamp Road to serve small farms. It ends at a large pond and wetlands covering several acres near Terry Drive. The wheels and lift rod assemblies are historic, while the concrete headwalls replaced the original wooden headwalls about 60 years ago. It is likely that the original pipes were wood and, as they collapsed, were replaced with metal pipes, likely in the 1930s, therefore within the period of significance.

In addition to the two historic headgates to the 'B' and 'C' Laterals, there are seven historic headgates to ditches in the historic district that were installed to serve settlers during the period of significance. The ditches were indicated on maps drawn during the historic period. They all have screw assemblies, described for the 'B' and 'C' Laterals, with smaller 6" diameter pipes. Unlike the gates to the laterals, the metal slides or paddles are attached to the pipes, but some are not attached to a headwall. One has remnants of the original wood headwall. The slides allow water to flow into the metal pipes that run under the sides of the canal to the diversion boxes or directly into ditches. Some ditches are less than 50' long and run into irrigation ponds beside the canal, while others branch out to serve many patrons. (See photo 5/20 in the appendix.) It is the property owner's responsibility to maintain ditches beyond COID's points of diversion. The following photos are of three of the seven historic headgates to ditches.



A historic headgate (Headgate #5 in Table 1) to a ditch set in a rock headwall,⁷⁴

⁷³ Ibid

⁷⁴ Photo by Patricia Kliewer, April 3, 2017.

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Historic lift gate assembly (Headgate #6 in Table 1) with no headwall and crude concrete check that has been built up over time.⁷⁵



Sections of wood sit in the rocks at the base of this historic headgate. There is no headwall. In Table 1 it is Headgate # 2.⁷⁶



Looking north from the center of the canal bed to historic headgate, COC 8/9, near Ward Road.⁷⁷ The handmade reinforcing-bar cage keeps rocks out of the pipe. It is attached to a worn concrete headwall. The pipe serves two ditches that branch out from a weir box north of the berm. (Headgate #1 in Table 1)

Non-Historic Ditches and a Sub-Laterals

Nine non-historic headgates to ditches and one non-historic headgate to a non-historic sub-lateral are in the district. All of them were constructed after 1940, as parcels were divided, and new owners needed more water. Although the wheel/screw lift assemblies are similar in design and function to the historic headgates,

Commented [HC34]: Outside the period of significance?

⁷⁵ Photo by Patricia Kliewer taken on October 31, 2017, looking south.

⁷⁶ Photo by Patricia Kliewer, taken looking southeast on October 31, 2017.

⁷⁷ Photo taken by Patricia Kliewer on April 3, 2017.

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they are all attached to smooth, poured-in-place concrete headwalls. The newest gate (Headgate #21 in Table 1) was installed near Gosney Road in the last 15 years when a property owner south of the canal purchased water rights from COID. It is pictured below.

Commented [HC35]: See previous comment regarding headgate numbering



Looking south to newest headgate that delivers water through a pipe to a weir box and delivery pipe on the south side of the canal to serve a new patron, just southwest of the Gosney Road Bridge.⁷⁸

The other non-historic gates are like the gates pictured below.



A non-historic headgate, centered on the headwall, with wing walls angled into the canal. (Headgate # 11 in Table 1.)⁷⁹



Looking north to a non-historic headgate (Headgate #20 in Table 1) that is caged with reinforcing bars to prevent rocks from clogging it.⁸⁰

⁷⁸ Photo by Patricia Kliewer, taken looking southeast on April 13, 2017.

⁷⁹ *ibid*

⁸⁰ *ibid*

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Ten Historic Contributing Waterfalls or Drops

Ten waterfalls add character to the canal in the historic district. Photos of each of them are in the preceding table. The waterfalls indicate a sudden drop in elevation in the main canal, usually in places that are formed by nearly solid lava rock. They date from the original construction and widenings, 1905-1912. They are significant contributing features in the historic district and are described in the MPD.⁸¹

Commented [HC36]: Not convinced that these "waterfalls or drops" meet the MPD definition of drops - which were intended to reduce velocity and therefore erosion of structures/features in areas of elevation change. These appear to be just the result of geology with no immediate downstream structure - such as a stilling basin - to reduce flow velocity.

Summary of Alterations in the Historic District

As mentioned previously, one major alteration to the main canal has occurred. A pair of berms replaced the historic flume at the east end of the canal around 1937-40. A recent minor alteration to the canal bed was COID's removal of a small rock island just west of the Bear Creek Ranch Bridge. The repair is not apparent and is covered with rock that regularly washes down the canal. The Stearns Waste, a set of three water discharge gates and associated headwall and catwalk were constructed in 1988 near Teal Road to replace a smaller historic headwall, catwalk and set of three smaller headgates at the same location. About three undated rock checks in the canal bed and concrete crudely-spread over rocks just downstream of some headgates to facilitate the diversion of water into them are not visible when the canal is flowing, and they are unobtrusive and partially covered with rock and silt when the canal is dry.⁸² Ten other headgates and concrete headwalls for a sub-lateral and some ditches are non-historic, but they are similar to the historic gates and operate in the same way. There are few alterations in the district, leaving the integrity at the highest level, given its 3.4-mile length and large scale.

CONCLUSION and INTEGRITY

The Central Oregon Canal Historic District has an exceptional degree of integrity and is a good example of a pioneer era canal in Central Oregon. Its location has not been altered over time, and it continues to display the distinctive characteristics of the historic period canal construction, an irregular, open, trapezoidal-shaped canal, made with local rock and soil by horse teams, hand tools and custom-designed steam drills. It represents the function and appearance of the water conveyance system, during the historic period. The district is of sufficient length to portray the purpose, the construction challenges, materials, techniques, and methodology of construction. The headgates and pipes to 16 ditches, two laterals and one sub-lateral, and over a dozen irrigation ponds that serve irrigated and cultivated land next to the canal, illustrate how the canal functions to provide irrigation water to those with water rights. It also demonstrates the differences between land with and without appurtenant water rights.

Commented [HC37]: Would suggest instead "canal typical of the period of significance."

Commented [HC38]: define

The structures at Stearns Waste are only 30 years old, but they replaced similar historic structures at the same location. Stearns Waste is an example of how the irrigation district staff deals with emergencies that can develop if water goes out of its banks downstream. Burt Chute and the remains of the historic wooden flume are reminders of the substantial challenges posed by lava tubes and sudden drops in elevation along a canal that flowed by gravity and could not go around obstacles. The wooden flumes were leaky and required constant maintenance. All the historic wooden flumes that were on the main canal, including three flumes in the two miles east of the historic district, have been replaced with metal pipes or embankments. Burt Chute and the piers for the Bear Creek Ranch Bridge were formed by hand with concrete mixed on site. Workmen had to break up and remove massive amounts of rock, bridge caverns with wood and concrete flumes, and build huge embankments. The high degree of integrity of setting, location, design, materials, feeling, association, workmanship of the historic district differentiate it from the remainder of the Central Oregon Canal. The canal in the historic district is the only unaltered stretch that conveys the full volume of water (530 cfs) and displays evidence of all the practical solutions to the unique historic construction challenges in 1905, 1907 and 1914, and includes 27 sets of irrigation system structures.

⁸¹ MPD, page F-49.

⁸² USGS 1962 Quadrangle Map and interviews with Richard Torkelson and David Turner on June 10, 2017.t

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The canal in the district has a distinctive lack of uniformity, an undulating bed, irregular side slopes, heavily rip-rapped or stacked rock embankments, cuts, and rapids caused by large rocks left in the bed as it drops 50 feet in elevation. The challenging rock, use of native materials, and practical, problem-solving methodology, resulted in the stretch looking and sounding like a river flowing naturally. The berms on the edge of the hills on the downhill side are distinctive and show the difficult labor the teams and men went to place the canal at the necessary elevation, so the system would flow for the entire length that was planned. It retains the feeling and association with the surveyors who determined its exacting route, so it could flow entirely by gravity and serve all the settlers and patrons. The canal varies greatly in width and depth, reflecting the engineers who calculated its necessary volume so that it would carry the water needed to irrigate future farms for the length of the canal, the superintendents and supervisors who adapted plans to meet conditions encountered in the field, specialists who blasted tons of rock with specialized mining equipment ordered the previous year to speed up work on the Pilot Butte Canal, and the hundreds of laborers with horse teams who dug, scraped, and moved thousands of loads of rock and soil, while trying to meet construction deadlines that were set in contracts between the canal developers and the State of Oregon.

The district has the widest variation of terrain and style and the tallest berms on the canal. The variations demonstrate that a narrow and deep canal with fast volume in a sloped area can carry as much water as a wide, shallow canal with a slower flow in flatter terrain. The tremendous variations in the district as seen in the survey data show that the main canal in the nominated district displays all the designs and methodology found throughout the entire canal: irregular winding rocky portions with large built-up embankments on the downhill side; portions with vertical sides and others with sloping rip-rapped and stacked rock sides; smooth and sandy level portions; portions with two cuts and no embankments; portions with and without a ditch rider road atop the embankments; portions with short embankments used to discard the materials taken from the bed; portions that were blasted and portions that were scraped.

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8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A Owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions.)

EXPLORATION AND SETTLEMENT

AGRICULTURE

Period of Significance

1905 – 1937

Significant Dates

1905: Canal completed in Historic District

1905: City of Bend incorporated

1905: City of Redmond platted

1908: Central Oregon Canal completed to Powell Butte

1914: Flow increased in system to serve Powell

Butte due to new North Dam and North Canal

1921: Water right holders become Central

Oregon Irrigation District (COID)

1937: Deeds to unsold land in Segregation

List 6 are returned to Federal Government

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation (if applicable)

N/A

Architect/Builder

Wiest, Levi David, Civil Engineer, Oct. 1901 –

Feb. 1904

Kelley, John G., Hydraulic Engineer, Feb. 1904 –

June 1904

Redfield, Charles Monteith, Irrigation Engineer,

April 1904-1921

Commented [HC39]: include date that COID's precursors were organized

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Period of Significance (justification)

The period of significance for the Central Oregon Canal Historic District (Ward Road-Gosney Road Segment) begins with the 1905 construction of the main canal and associated irrigation water delivery system structures in the historic district. Settlers began purchasing land in the historic district in 1909. The canal was widened, and turnouts/headgates, laterals and ditches were constructed as land was sold to settlers. The period of significance ends on June 30, 1937, when the State of Oregon returned to the federal government deeds to eight unsold 40-acre parcels that are in and adjacent to the historic district. Charles H. Martin, Governor, on behalf of the State Reclamation Commission, relinquished and re-conveyed the deeds to 8,829 acres of unsold land in Deschutes County that had been in Segregation Lists 6 and 19, to the United States of America. (The two Segregations included 84,707 acres.) By 1937, settlers had purchased all the irrigable and farmable land along the entire canal, and agriculture and settlement were established in the area.

Commented [HC40]: unsure why the period of significance is so different from the PBC Redmond segment period of significance. 1950 was considered the end of the period of significance when the Carey Act's authorization was terminated, and would apply to this nomination as well.

Criteria Considerations (explanation, if necessary)

N/A

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and applicable criteria considerations).

The Central Oregon Canal Historic District (Ward Road – Gosney Road Segment) is significant at the local level under Criterion A, Exploration and Settlement and Agriculture. It represents the extensive, ambitious open canal system that conveyed water by gravity between the Deschutes River in Bend and the Powell Butte area. It brought about widespread change in the arid region. The Central Oregon Canal delivered irrigation water to 25,257 acres that enabled profitable agriculture and brought a surge of settlers to the area. It substantially affected settlement, agricultural production, population growth, and the commercial and economic development of Alfalfa, Powell Butte and Bend. The downstream cities, particularly Alfalfa and Powell Butte, significantly benefitted from the construction of this segment of canal, as without the segment the towns would not exist as the canal was integral to the settlement and growth of those communities. The for-profit development company's successful, nationwide, private, marketing campaign attracted thousands of settlers to the arid high desert and resulted in the sale of most of the land in their segregations. The historic district is a segment of the Central Oregon Canal, one of two canals developed by the Central Oregon Project that was the largest and most successful Carey Act irrigation and settlement project in the Northwest.⁸³ The nominated segment was constructed, and land around it was sold, as a for-profit commercial enterprise by the Deschutes Irrigation and Power Company, under contracts with the State of Oregon under the Carey Desert Land Act. It is directly associated with the provision of irrigation and development of agricultural output of all areas downstream of the nominated segment. The contract between the company and the State required the developers to reclaim the land by delivering irrigation water to the highest point on each parcel that had a water right. The nominated segment is a representative portion of the main canal with a concentration of secondary structures that adequately represent the irrigation project's function and historical significance. The segment was difficult, time consuming to build due to the extraordinarily difficult volcanic terrain, and was crucial for the entire canal to allow adequate water to flow to the remaining 35 miles of the 47-mile-long canal. Building of this difficult segment was overcome not through novel engineering, but through a combination of large amounts of man and horse power and the deployment of a variety of typical approaches, including blasting, scraping, digging, and fluming, all of which had to be completed within a limited period of time set by contract with the State of Oregon. Due to the difficulty and short timeframe, this portion of the canal was originally underbuilt and the segment was a bottleneck on the canal until 1914 and had to be relieved by expansion twice during the period of significance. The historic irrigation infrastructure in the district meets the general and specific registration requirements set forth in the Multiple Property Documentation, Carey Act and Reclamation Acts Irrigation Projects in Oregon 1901-1978, Oregon (NRIS No. MC 100001302).

⁸³ Michael Hall, *Irrigation Development in Oregon's Upper Deschutes River Basin, 1871-1957, A Historic Context Statement*
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Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

Built in 1905, the Central Oregon Canal Historic District (Ward Road – Gosney Road Segment) is significant at the local level under Criterion A, in the areas of Exploration and Settlement and Agriculture. The segment of the canal meets all the general and specific registration requirements detailed in the Multiple Property Documentation, Carey Act and Reclamation Acts Irrigation Projects in Oregon 1901-1978, Oregon. The segment is in its original location, is of sufficient length, and displays a high-degree of historic integrity that clearly communicates its purpose and function to convey irrigated water downstream to Alfalfa and Powell Butte.

CENTRAL OREGON CANAL MEETS REGISTRATION REQUIREMENTS IN MPD

The Central Oregon Canal Historic District is nominated under the Multiple Property Document Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 (MPD) for local significance under National Register Criterion A in the areas of Agriculture and Settlement and Exploration. The Central Oregon Canal Historic District meets all of the registration requirements set forth in the Multiple Property Document relevant to historic districts composed of a principal resource and accompanying appurtenant secondary resources. COCHD as Historic District⁸⁴

The COCHD is classified under the MPD as a Historic District, meeting the MPD's definition of such resources; within the larger Central Oregon Canal, the segment represents a significant, distinguishable entity comprising a primary conveyance feature (Central Oregon Canal), and a number of secondary conveyance features (laterals/ditches, flume [present, in ruin], chutes/drops) and flow control devices (headgates, wasteway) features that together illustrate both the unique character of the canal in this area, and the features and function of the water delivery system of which the canal is central. The adequacy of the length of the nominated segment is determined by two factors; the relative importance of the principal resource (canal), and the number of secondary features present. The COCHD centers on the Central Oregon Canal, one of two canals that ~~form comprise~~ the Central Oregon Project, and considered to be of central significance to the overall system. The nominated area includes a variety of secondary elements, including both secondary conveyance features and flow control systems, fully sufficient to illustrate the function and operation of the larger canal system. ~~Beyond this, at 3.4 miles in length, the COCHD is the longest segment of irrigation canal yet nominated in the State of Oregon. The National Register-listed Pilot Butte Canal Historic District, by comparison, measures 1.4 miles in length, and the Pilot Butte Canal: Downtown Redmond Segment Historic District, also listed, measures 1.3 miles in length.~~

Registration Criteria⁸⁵

Per the requirements of the MPD, the COCHD represents a segment of the larger Central Oregon Canal, nominated under National Register Criterion A at the local level with significance in the areas of Agriculture and Exploration/Settlement. The COCHD belongs to the historic context "Carey Desert land Act Projects in Oregon, 1901-1950," being constructed directly as a result of the Carey Act implementation in Oregon (see pp. 48-92). It is directly associated with the provision of irrigation and development of agricultural output of all areas downstream of the nominated segment, by virtue of it's crossing of a very difficult area of volcanic terrain, without the construction of which the canal could not have extended to the east. Relatedly, the provision of the irrigation waters to these areas resulted in the "substantial impact of Oregon's landscape," resulting in the settlement of the farming communities of Alfalfa and Powell Butte (see pp. 92-95), and converting once arid, marginal lands into the highly productive agricultural lands they are today.

Registration Requirements⁸⁶

The COCHD meets the General Registration Requirements applicable to all properties nominated under the MPD. The district represents a significant segment of the Central Oregon Canal, a portion of the Central

⁸⁴ See page F-35 of the *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 [MPD]*.

⁸⁵ See MPD, p. F-35.

⁸⁶ MPD, p. F-36.

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Oregon Project, which is a Carey Act project, entirely located within the State of Oregon, and which provided the historical and physical data that informed the development of the MPD, and is therefore exempt from the requirement of a detailed, separate context appended to the MPD; the property is defined as a historic district possessing one or more defined property types; the COCHD belongs to a defined Period of Significance (see p. 38) within the Carey Act-related historic context, and retains sufficient integrity to convey its significance (see pp. 35-36), with particular note to the aspects of "setting," of which topography is the central element (as it relates to significance), and "workmanship," to which the many instances of rocks exhibiting blasting holes within the district attest.⁸⁷

The nominated segment represents the single most challenging element of the canal to construct, due to the extraordinarily difficult volcanic terrain, was the portion of the canal that took the longest to construct, and was overcome not through novel engineering, but through a combination of dogged determination, application of large amounts of man and horse power, and deployment of a variety of typical approaches, including blasting, scraping, digging, and fluming, all of which had to be completed within a limited period of time set by contract with the State of Oregon. Because of the extreme difficulty and short timeframe, this portion of the canal was originally underbuilt, representing a bottleneck that had to be relieved by expansion twice during the period of significance.

Commented [HC41]: Not being nominated under criteria C, and discussion of the construction has been discussed previously, so a repeat is unnecessary.

In sum, the COCHD meets or exceeds all relevant registration requirements set forth in the MPD, exhibiting high integrity, a clear ability to convey its historical association and significance, and drawing significance beyond and in addition to that conveyed to the larger system of which it is a part.

INTRODUCTION TO THE CENTRAL OREGON PROJECT

Overview

Construction of the Pilot Butte Canal and the Central Oregon Canal and the sale of land around them were the facets of the Central Oregon Project that changed the history of Central Oregon. The Deschutes country was relatively unknown and unsettled when the irrigation project began as a fortune-making idea in 1900. The Pilot Butte Development Company meticulously explored, surveyed, and mapped the plateau in the high desert east of the Deschutes River and south of the Crooked River to determine opportunities for a vast irrigation system. It considered the potential for income to investors by reclaiming and selling the land that could be irrigated. By providing the primary means of watering the arid land for agriculture and by bringing in a vast amount of capital, the Pilot Butte Development Company (1900-1904) and its successors, the Deschutes Irrigation and Power Company (1904- October 1910) and the Central Oregon Irrigation Company (October 1910-1921), constructed Central Oregon Project with private funding under an agreement with the State of Oregon under the Carey Act.⁸⁸ The irrigation project was the largest irrigation project in the Northwest, irrigating 140,714 acres.

⁸⁷ MPD, p.F-37, "C. Setting," and "E. Workmanship."

⁸⁸ Michael Hall, Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, A Historic Context Statement, 1994, pages 19-30.

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Photo taken in early 1905 of laborers and their tent camp along the Bend stretch of the Central Oregon Canal.⁸⁹

The nominated segment of the COC was blasted out of rock that covered lava tubes and caverns that became apparent when the surface rock was removed. It was a critical stretch that was the most time consuming and physically challenging to construct and required a huge investment of men and horse teams. Work on the nominated segment of canal began in November 1904 when crews begin to clear the route for the first 10 miles with horse teams. On February 10, 1905, the company moved men and horse teams from the Pilot Butte Canal to augment the crews on the Central Oregon Canal.⁹⁰ The March 10, 1905 *Bend Bulletin* reported that 400 men and 250 horse teams were working between six and ten miles from the river (the historic district is between miles 7.5 and 11.5) and the canal was being excavated and rock work was going well. *The Bend Bulletin* on July 14, 1905 said, "Several leaks have developed along the Central Oregon work, where rock was shattered by blasting, opening crevices to subterranean chambers. These are generally stopped by padding and tamping." Crews had been working on the same two miles of canal in the hills and rock for nine months and were still 12 miles east of Bend. The huge crews were aided by having the specialized rock drilling equipment purchased for the rocky portion of the Pilot Butte Canal to speed the process of blasting rock and steam shovels to scoop up broken rock and load it in wagons.

While most of the gradually-narrowing canal traverses a relatively flat plateau with little rock, this stretch is the hilliest, rockiest and most uneven and has lava tubes and sudden drops in elevations that were bridged by Burt Chute and a wooden flume. It took a year to complete the segment. But, to meet demanding construction schedules, set by the State with a shortage of laborers, it was under-sized. That resulted in its being a bottleneck in the system, and it was therefore widened twice, in 1907 and 1914, to allow the delivery of adequate water to settlers in Powell Butte. The accomplishment of moving tons of rock, building the 305'-long wooden flume, the 215'-foot-long concrete Burt Chute and constructing miles of huge embankments on the downhill sides, exemplifies private enterprise and laborers overcoming the challenges presented by the region's geology. It reflects the construction methods and materials used throughout the irrigation system. It took an extraordinary amount of private capital, exceptional expertise in the utilization of technology, and enormous labor and horse-power to build the canal through the district. Farmable land in the historic district was sold to settlers by the development companies under a contract with the State of Oregon under the Carey Act, beginning in 1909. By 1937, settlement of irrigable and farmable land in the district was complete, but, some poor land with no appurtenant water rights remained in public ownership,

Summary of Financial Considerations

The project was a successful, for-profit, commercial enterprise under the Carey Act. It brought significant private investments from Central and Eastern United States capitalists and railroad men. The project was

⁸⁹ Photo from Deschutes County Historical Society Collection.

⁹⁰ "To Crooked River," (*The Bend Bulletin*, February 3, 1905), 1. Indicates Central Oregon Canal just started at this time, with the breaking up of ground; "Canal Is Finished," (*The Bend Bulletin*, February 17, 1905), 1. This article indicates work completed to the Crooked River on February 10; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, February 4, 1931), n.p. Brogan states February 9 as the completion date.

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directly related to the founding of Bend, Redmond, and Centrallo (later called Deschutes Junction), and the settlement and economic enhancement of Alfalfa and Powell Butte. The companies aggressively marketed the project and attracted settlers from across the United States and other countries to buy the reclaimed land, and establish new churches, schools, homes, ranches, farms, and businesses. The private funds were used to build the irrigation system that was worth \$3 million when it was transferred to users as the Central Oregon Irrigation District in 1921. By linking the investment in the irrigation company with corporate goals to attract business owners and farmers; sell the irrigated land; expand the agricultural sector; plat and develop Bend and Redmond, and the town of Centrallo between them; and to deliver water to the far corners of the plain; the project transformed the central Oregon high desert. Investment capital flowed into the region from the irrigation company as the canal system was built, bringing value to the lands, and flowed back to the company as settlers purchased lands and bought water. Investment flowed to the purchasers of city lots as the company invested in businesses, buildings, and urban infrastructure and as products and services were bought and sold. The region experienced new economic opportunities, population growth, and prosperity. In addition, development of these communities led ongoing economic expansion, which brought the local area into the greater economy of Oregon and the Pacific Northwest.

The Central Oregon Project

Michael Hall wrote in his book, *Irrigation Development in Oregon's Upper Deschutes River Basin, 1871-1957, A Historic Context Statement*, "From 1878 to 1902, irrigation expansion became a critical issue in the West. Eastern speculators and the region's residents reclaimed large portions of the 'Great American Desert' to create an economic base to foster settlement. Almost none of the hundreds of irrigation companies formed with eastern capital in the 1870s and 1880s survived beyond 10 years. Their failures resulted from not understanding that expansion of agricultural development required storage reservoirs and sophisticated dams and canals."⁹¹

One successful for-profit project funded with eastern capital was the Central Oregon Project. It included the construction of the 47-mile long Central Oregon Canal, the 22-mile long Pilot Butte Canal, the 1-mile North Canal, and the North Dam (sometimes later referred to as the North Canal Dam) on the Deschutes River. The canals it built were not sophisticated structures, but were adequate, and it did unexpectedly need a large, expensive dam. However, the investment in the project covered the cost of the unanticipated structures.

The Central Oregon Project began with Alexander Drake's vision of a vast irrigation system on the high desert plateau, east of the Deschutes River, in 1900. Most settlers had received water by 1914 when the Central Oregon Canal reached Powell Butte. In 1921, the for-profit Central Oregon Irrigation Company's operation and maintenance responsibilities plus the assets were transferred to the water users as a district. The project ended in 1937, when the deeds to 8,829 acres of unsold land in Deschutes County that had been in Segregation Lists 6 and 19 were returned to the federal government. On June 30, 1937, Charles H. Martin, Governor, on behalf of the State Reclamation Commission, relinquished and re-conveyed the deeds to 8,829 acres of unsold land in Deschutes County that had been in Segregation Lists 6 and 19, to the United States of America. (The two Segregations included 84,707 acres.)

Until 1912, the two large canals shared a diversion point at the Deschutes River as well as the first few miles of huge wooden flume that crossed over a volcanic rock flow. The Pilot Butte Canal was finished in February 1905, just after the Central Oregon Canal was begun. In 1912, the Pilot Butte Canal was split from the Central Oregon Canal and diverted water from the Deschutes River at the new North Dam in Bend. The Pilot Butte Canal runs north through Bend and Redmond and serves Terrebonne and then turns east for the last five miles to it terminus at the Crooked River near Smith Rock State Park. The company did not expect to need the dam that allowed the Pilot Butte Canal to have its own diversion gate off the river and the North Canal and splitting the two canals increased the cost of the project.

⁹¹ Michael Hall, *Irrigation Development in Oregon's Upper Deschutes River Basin, 1871-1957, A Historic Context Statement*, p.

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Crew building the shared diversion structure at the Deschutes River for the two canals, ca. 1903.⁹²

State Engineer John Dubuis and local civil engineer Levi. D. Wiest designed the North Dam and North Canal and Charles M. Redfield managed their construction. They were built to solve water volume shortages on the two canals, especially in Alfalfa and Powell Butte. The HAER: OR-61-C states, "The North Canal Dam and diversion canals constitute one of the most historically significant irrigation engineering complexes in Central Oregon. The complex is associated with important developments in agriculture as well as with locally prominent investors and pioneer irrigation companies in the Bend area. The North Canal Dam (1912) is the largest dam on the Deschutes River in the Bend area and is the oldest dam built for irrigation. When constructed, the 33-foot high, 200-foot wide concrete arch dam was a significant engineering feat. The canal was the primary influence in the founding of Redmond and contributed to the growth and stability of other communities in the area."⁹³

Today, the Central Oregon Canal continues to divert water at its original 1903 diversion point at the Deschutes River at the southern end of Bend and runs east to the Dry River, then north through Alfalfa and Powell Butte, then circles northwest toward the Crooked River and Smith Rock State Park, ending near the terminus of the Pilot Butte Canal. The two canals frame the high desert plateau with the Deschutes River on the west, the Crooked River on the north, the Dry River and Powell Buttes on the east and the Newberry Crater National Monument on the south. The plateau is more than 30 miles in each direction and consists of 900 square miles. The irrigation system was to serve about half of it, 227,383 acres, that had potential to be cultivated.⁹⁴ Thousands of acres are unfarmable because they are covered with thin topsoil over rock or have large amounts of rock outcroppings or are not irrigable. The amount of land sold to settlers, cultivated and irrigated by the system amounted to 139,000 acres in November 1913. The Central Oregon Canal is the larger of the two canals in width, length and volume of water conveyed and it took the longest to construct. (See Figures 1, 7 and 8.)

Alexander Drake

Alexander Drake saw the opportunity to develop a vast irrigation system when he visited the area in 1900. (See Figure 24.) Thirteen years later, the Central Oregon Irrigation Company manager described what Drake saw. "The land slopes gently from the Deschutes River and consists of plain and slightly rolling country. It falls toward the north at the rate of about 30 feet per mile. It will be readily seen that these features present ideal conditions for an irrigation system."⁹⁵ The highest elevation is at the diversion gate at the Deschutes River at the southwest corner of the plateau. The lowest point is at the Crooked River, an altitude difference of 701', near the northeast corner of the plateau. The Pilot Butte Development Company hired surveyors and engineers to explore the area and to create a detailed topographic map of the plateau in 10-foot contours, to map out the canals and delivery systems to serve the purchasers of irrigable and saleable land. It was

Commented [HC42]: Nomination is not being made under criteria B - significant persons - so while interesting, not really necessary - suggest summarizing

⁹² Photo from Deschutes County Historical Museum Collection.

⁹³ HAER: OR-61-C, p. 1.

⁹⁴ Bend Bulletin Newspaper, July 30, 1913, pps. 1, 21, 22.

⁹⁵ *ibid.*

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necessary to locate the canals along the highest contours possible to have the water flow gradually downhill but remain high enough to fill laterals and ditches. "By reason of the light rainfall, the lands of this part of the country, like the greater portion of the lands west of the Rocky Mountains, are classed as 'arid' and for many years it was generally supposed that they were almost worthless, but it is found that when supplied with additional moisture – by irrigation – they are among the most fertile of any on earth, and they produce crops of such abundance as to almost unbelievable."⁹⁶ The company describes the "disintegrated lava and volcanic ash" soil as rich and "practically inexhaustible."

Drake made four filings for water rights on November 5, 1900. Planning, surveying, engineering, and financing, along with trips by horse-drawn wagon to Salem and eastern states to form coalitions with state and federal politicians began right away. The State of Oregon approved its Carey Act enabling legislation on February 28, 1901. The Pilot Butte Development Company entered into a contract with the State of Oregon on May 31, 1902 to reclaim 84,707.74 acres under the Carey Act. By 1903, the diversion point and the canals were under construction. The two canals shared an immense wooden flume at the diversion structure at the eastern bank of the Deschutes River south of Bend until they split in 1912. The flume was enlarged and repaired several times, but it was always inadequate. In 1909, while the flume at the diversion point was shared, the incomplete Central Oregon Canal was furnishing water to 56,000 acres. In 1912, a new dam and connecting canal, the North Canal, were completed at the north end of Bend to serve only the Pilot Butte Canal. The Intake for the Central Oregon Canal remained in the original location.

The Pilot Butte Canal was built first and was largely completed on February 10, 1905. The Pilot Butte Canal was built with hard labor by men and horse teams that worked well in areas with little volcanic rock. But, specialized construction equipment was ordered at the end of 1904 to more efficiently blast through the challenging solid basalt lava rock flows in the Bend area and move thousands of tons of rock. That specialized equipment and the techniques learned by constructing the Pilot Butte Canal were applied to the more extensive project, the Central Oregon Canal. Crews that worked on the last five miles of the Pilot Butte Canal and the new equipment they were using were brought to Bend in February 1905 to join the crew already working on the Central Oregon Canal south of Bend near the flume.

During 1905, the Central Oregon Canal was constructed through the historic district. By 1907, the Central Oregon Canal was 28 miles long and reached the community of Alfalfa and the Dry River. In 1908, the canal was 45-miles long and was completed to the Powell Butte community, but it did not irrigate the entire area that was required to be irrigated by the company's contract with the state and promised to the settlers, due to bottlenecks in the system. In 1912, the Pilot Butte Canal's intake was moved to the North Dam and the intake with Central Oregon Canal was no longer shared. The laterals on the Central Oregon Canal were nearing completion and water flow in the main canal and laterals was increased. But the water volume was still inadequate. In 1913, the main canal through the rock east of Bend, including in the nominated historic district, was determined to be too small and it was enlarged again the following year. Most of Powell Butte was finally served in 1914, although settlers complained about the volume until the new Central Oregon Irrigation District addressed the problems after 1921.

The Central Oregon Canal, this mighty 47-mile long canal, today serves the southern and eastern half of the high desert plateau. The main canal's completion in 1908 and the delivery system's completion in 1914 spearheaded the settlement of southern and eastern Bend and continued the settlement in the older communities of Alfalfa and Powell Butte. This construction and operation changed the history and appearance of these communities more than any other event. Water flow through the canal initiated the development of agriculture on a large scale in the Deschutes Country.

The Central Oregon Project was the second contract in Oregon under the Carey Act. The Pilot Butte Development Company (1900-1904) and its successors, the Deschutes Irrigation and Power Company (1904-October 1910), and the Central Oregon Irrigation Company (1910-1921) were successful because they used

⁹⁶ *ibid*

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experienced financiers, encouraged colleagues to plan and construct the railroad from the Columbia River Gorge to Bend in 1911 that further facilitated the influx of settlers and goods, and implemented an aggressive national advertising campaign. They had offices in Prineville and Portland and actively participated in an agricultural experimental farm and sponsored competitions among the settlers to learn about the possibilities of growing crops and raising livestock in the high desert. They formed political coalitions with the Governor, the Oregon Land Board and other politicians. They brought in experienced civil engineers and construction supervisors to find solutions to the challenges presented by the construction of the canals. Their local leadership and practical experience on similar projects, such as founding towns and railroad building, also contributed to the project's success and the settlement of Central Oregon. The Pilot Butte Canal's history and its significance and impact on Central Oregon and the associated founding and development of the cities of Bend and Redmond was documented in the Pilot Butte Canal (Cooley Road – Yeoman Road Segment) nomination that was listed on the National Register of Historic Places in 2016. Both canals, along with the North Canal, and North Dam, were one project and together are integral to the success of the Central Oregon Project.

Robert Morgan, revered irrigation engineering historian, said: "The destiny of the human race has been influenced by irrigation water ever since man's first attempts at agriculture in the dawn of civilization."⁹⁷ Alexander M. Drake stood at the forefront of a vast wilderness and had the vision to build the Central Oregon Project for the settlement and farming of the Deschutes Country. The Central Oregon Canal brought historic changes to the region from that day forward. The phenomenal growth of Bend began in 1904 with the initiation of the large irrigation project and the platting of the town, followed by substantial settlement and significant agricultural growth. The great investment in the Central Oregon Project by investors who saw the promise of the region now known as Central Oregon was critical to its success.

SIGNIFICANCE OF THE NOMINATED STRETCH OF THE CENTRAL OREGON CANAL

Significance of the Nominated Stretch

The 3.4-mile long nominated historic district was a critical and difficult section of the canal to construct. It needed to be enlarged in 1907 and in 1914 to allow the irrigation company to fulfill its contract and deliver water necessary to flow to the end of the irrigation system at Powell Butte. Even though the segment took nearly a year to originally construct, crews did only the minimum excavation each time they worked on the segment, because it was expensive and time consuming to blast through the rock and build the huge berms that were necessary on the downhill edge of the sloped terrain and to build flumes across low points and caverns. The rock in the nominated district presented a great construction challenge and reflects the historic construction techniques used. Because of the toughness of the terrain and the exceeding difficulty in removing the volcanic rocks, characteristics of the district reflect the type of terrain and the construction methods which prevailed there. It took an extraordinary amount of capital, exceptional expertise in the utilization of technology, and enormous man and horse-power to build the canal in this location, three times. It was the only stretch that had to be enlarged.

Today, the 1904-1914 labor on the Central Oregon Canal is easily recognized and observed in the nominated stretch. The district includes nearly all the portion of the now 47-mile-long canal that is on the side of a slope. The terrain before and after the district is relatively flat. It is distinctive for the tall berms in rolling terrain. The canal bed is the widest and deepest in the system. The immense accomplishment of constructing this section exemplifies how ditch crews overcame the challenge presented by the region's geology. It required great tenacity, ingenuity, technology, labor and money. There were delays caused by a 500' collapse in the intake flume in 1905 that took laborers away from the work of constructing the canal in the historic district. Also, in 1905, laborers left their canal construction positions in this location to work instead on the Columbia Southern irrigation project that offered better wages. The canal was built too small in this location and had to be

⁹⁷ Morgan, Robert M., *Water and the Land: A History of American Irrigation*, (Fairfax, Virginia: The Irrigation Association, 1993), 3.

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widened twice, because the company pushed the crews too hard due to the desire to meet state deadlines, and to move on to the east where the project was less difficult, and to show more progress to the state inspectors.

The qualities of design, materials, and workmanship reflected by the flowing water are extraordinary. Other than the Powell Butte Siphon made with a redwood pipe which was designed and supervised two years later by Chief Engineer Charles M. Redfield, and constructed by a contractor, all the canal was built the same way as this portion in the historic district. The greatest challenges were encountered in the historic district. As they moved east, the crews encountered less rock and flatter terrain, and the canal became smaller and easier and therefore faster to construct. The Central Oregon Canal at this location is an assemblage of man-made and natural features joined together that illustrate the 1905-1937 construction and settlement experience.

PURPOSE OF THE WATER DELIVERED BY THE CENTRAL OREGON CANAL

For 112 years, under the 1900 water right to the Pilot Butte Development Company, the Central Oregon Canal has delivered irrigation water from the Deschutes River to reclaim (irrigate) arid land between Bend and Powell Butte and around the compact community of Alfalfa. The canal flows continuously for six months during the irrigation season, generally April 15 to October 15, depending on the weather, plus a stock runs a few days every five to six weeks during the late fall, winter, and early spring.⁹⁸ Typically, flows vary by the amount of irrigation water needed by farmers due to the weather, the snowpack on the Cascade Mountains to the west, and the stage of crop development.

Water conveyed by the Central Oregon Canal has a variety of beneficial uses. It irrigates residential, industrial, and commercial landscaping in urban areas and crops in the rural areas, such as potatoes, onions, and horticultural plants. Primary crops are hay for baled animal feed and grass pastures for livestock. The canal provides water to the Bend Airport, urban trailer parks, urban residences, hobby farms north and east of Bend, commercial farms and cattle ranches, recreational ponds and reservoirs, wildlife habitat ponds, a golf course, and residential landscaping. Pastures from 0.5 to 80 acres in size for goats, sheep, horses, lamas, alpacas, and cattle dot the landscape. It fills cisterns and stock ponds and irrigates school lawns and play fields. This canal is distinctive in the high desert in that it fills many large public and private recreational ponds and lakes, in addition to the usual irrigation ponds. Also, several parcels have multiple irrigation ponds and many of the irrigation ponds cover more than an acre.

Commented [HC43]: What about hemp and marijuana crops?

THE DESCHUTES RIVER and UPPER DESCHUTES REGION'S POTENTIAL

Post Frontier Period, 1883-1917

Schwantes says that, "During the years bracketed by the completion of the Northern Pacific Railroad in 1883 and the U.S. entry in the First World War in 1917, the Pacific Northwest moved inexorably into a post frontier world ... The generation of men and women who came to the West in covered wagons ... passed from the scene. They had committed to building a new society in the wilderness; those who followed them were also builders — of cities, transcontinental railroad lines, [and] irrigation works ..."⁹⁹ These 'builders', Eastern capitalists, had accumulated wealth from investments in railroads, oil and gas, lumber, banking, and other enterprises. They sought to further amass capital, and, at the turn of the century, the Deschutes Country offered the last region in the nation with seemingly unlimited resources for those first to exploit its water, land, and timber.

⁹⁸ Central Oregon Irrigation District website, www.coid.org.
¹²⁵ Schwantes, *The Pacific Northwest: An Interpretive History*, 287; Dennis, Matthew, "Natives and Pioneers," (*Oregon Historical Quarterly*, vol. 115, no. 3), p. 288. 1996

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Portland *Oregonian* editor Harvey W. Scott observed similar changes occurring in Oregon as those described by Schwantes. Scott wrote about changes taking place over the entire Northwest. In 1901, Scott told an audience, "Under operation of forces that press upon us from contact with the world at large, and under the law of our own internal development, we are moving rapidly away from old conditions. Pioneer life is now but a memory; it will soon be but a legend."

The U.S. Department of the Interior in 1890 reported the irrigation potential of the Deschutes River and the adjacent lands: "It appears not improbable ... that a great irrigating system can be profitably constructed along this river. There seems to be no question as to the permanence of the water supply, the fertility of the land when irrigated, and the favorable character of the climate." The report's author, Frederick H. Newell, would become chief engineer of the U.S. Reclamation Service upon its creation in 1902, and its first director in 1907.¹⁰⁰

F.F. Henshaw, John H. Lewis and E.J. McCaustland were three outstanding engineers who served in state and federal roles in which they conducted research on the Deschutes River that aided agencies in managing its waters over the first two decades of the twentieth century. Their research a century ago pointed out the river's irrigation and power potential:

"In several respects [the] Deschutes River is unique among rivers of the United States. Its natural flow is remarkably constant; its headwaters afford reservoir sites sufficiently large and so distributed that the total flow of the river may be utilized both for irrigation and for power; the irrigable lands in the valley, aggregating 300,000 to 500,000 acres, are so situated on a plateau in the upper part of the basin that the total flow of the upper river and its principal tributaries may be utilized for irrigation; and below the irrigable area the river flows in a deep canyon having a fair slope and affording excellent opportunities for power development, a reliable water supply being assured by the return water from the irrigated areas above and by the lower tributaries of the river. The future of this exceptional combination of abundant water supply, large area of irrigable land, and great water powers will transform the Deschutes Valley into a region whose agricultural importance will be enhanced by the many hydroelectric plants that will furnish power for local use or for transmission to distant power markets."¹⁰¹

At the turn of the twentieth century, Central Oregon, known then as the Deschutes Country, was the most remote region in the nation. It presented opportunities to capitalize on the Deschutes River, promising lands for agriculture, and timber from immense pine forests. Americans and new immigrants had been spurred westward by visions of productive farmlands, riches of gold, and vast stands of timber. A major factor in westward expansion was the building of transcontinental railroads. By 1900, Portland, Oregon, Seattle and Tacoma, Washington, were served by the railroads, and trunk and other lines linked smaller communities to the social and economic fabric of the nation.¹⁰² The Deschutes Country, however, was not connected by rail to the rest of the nation.

¹⁰⁰ Newell, F. H., *Report on Agriculture in the United States at the Eleventh Census: 1890*, (Department of the Interior, Census Office, Washington: Government Printing Office, 1894), 207. Newell became the first director in 1907 when the Reclamation Service broke away from the U.S. Geological Survey (USGS) to become a separate agency under the Department of the Interior.

¹⁰¹ Henshaw, F.F., John H. Lewis and E.J. McCaustland, *Deschutes River, Oregon and Its Utilization, Water Supply Paper 344*, Prepared in Cooperation with The State of Oregon, John H. Lewis, State Engineer, (Department of the Interior, U.S. Geological Survey, Washington: Government Printing Office, 1914), 9. 'Introduction' by N.C. Grover; "Geological Survey Report on the Deschutes River," (*The Bend Bulletin*, November 25, 1914), 1. The authors were District Engineer F.F. Henshaw, State Engineer John H. Lewis and their colleague E.J. McCaustland. Detailed plans were presented for the development of water power at 18 sites along the river. The question of irrigation was presented.

¹⁰² Culp, Edwin D., *Early Oregon Days*, (Caldwell, Idaho, The Caxton Printers, 1987), 107. Culp writes, "In 1883 the Northern Pacific Railroad reached Portland by using the Oregon Railway and Navigation (OR&N) tracks from Wallula Junction to Portland, a line that followed the south side of the Columbia River. At Portland, the NP had previously built its own right-of-way to Tacoma and Seattle ... In 1887 the NP again reached Tacoma and Seattle, this time by continuing its track-laying program entirely in Washington Territory ... The OR&N was soon to become property of the Union Pacific (UP), a line that would be competitive with the NP."

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George Palmer Putnam, of New York publishing house G.P. Putnam's Sons, *In the Oregon Country*, "The map of Oregon had long shown a huge area without a single railroad crossing it. This rail-less land was Central Oregon, the largest territory in the United States without transportation."¹⁰³ In 1900, the Columbia Southern railroad arrived in the small city of Shaniko, sixty-nine miles south of Biggs, Oregon, on the Columbia River. Shaniko became the connection point between the Deschutes Country and the outside world.¹⁰⁴ It was a twelve to fourteen hour and an eighty-mile trip from Shaniko by stage to Prineville. From Prineville, the trip was several more hours to the Bend area. Urling C. Coe, M.D., one of Bend's first doctors, described the land he first saw in January 1905. "This vast unfenced area . . . was the largest area in the United States without a railroad, and the last frontier of the thrilling and romantic Old West."¹⁰⁵

The Carey Act and the Settlement of the West

"Large-scale settlement of irrigated lands in the twentieth century marked the final phase of a process that began when immigrants first traveled west along the trail to Oregon," according to Carlos Arnaldo Schwantes. In his comprehensive history of the region, *The Pacific Northwest: An Interpretive History*, he writes that "[b]y the turn of the century, people who still dreamed of acquiring a farm from Uncle Sam placed their faith in the power of irrigation to transform the region's countless parched acres into desert gardens."¹⁰⁶

The new approach to encourage settlement of the West was for the federal government to cede up to a million acres of land to each of the ten arid states, if they caused the land to be irrigated, settled, and cultivated. The Carey Desert Land Act of 1894 (Carey Act) was the process by which the federal government, acting through the State, agreed to make available up to 160 acres of arid land to a settler who made application for such a tract, settled upon it, and improved at least one-eighth of it into irrigated acreage. The state was responsible to the Secretary of the Interior to have a map and a plan thoroughly sufficient to irrigate and reclaim the designated land to raise ordinary crops, and to bring about the settlement and cultivation of the lands.¹⁰⁷

Oregon accepted the Carey Act process with enabling legislation on February 28, 1901. The legislation made it State policy that Oregon's arid land should be reclaimed and settled. The State was to rely completely upon private development corporations to bring about reclamation and settlement of the arid lands.¹⁰⁸ At the end of 1904, twenty-three Carey Act segregations (potential project areas) had been created by the State under the Carey Act, but only four of the twenty-three had been approved by the Secretary of the Interior. Three of these four Oregon irrigation projects were in the Deschutes Country.¹⁰⁹ The three projects were the Pilot Butte Development Company, the Three Sisters Irrigation Company, and the Deschutes Reclamation & Irrigation Company.

Commented [HC44]: RR history in Deschutes area is interesting, but this nomination is about irrigation - RR provided means to move products that resulted from irrigation to larger markets. Discussion of the RR should be summarized to reflect that contribution for purposes of this nomination.

Commented [HC45]: Already discussed in MPD.

¹⁰³ Putnam, George Palmer, *In the Oregon Country*, (New York: G.P. Putnam's Son, 1915), 54.

¹⁰⁴ Due, John F. and Giles French, *Rails to the Mid-Columbia Wheatlands: The Columbia Southern and Great Southern Railroads and the Development of Sherman and Wasco Counties, Oregon*, (Washington: University Press of America, 1979), 43-52. The railroad arrived in Shaniko, "an artificial creation of the railway," on March 7, 1900. Elmer Elm (E.E.) Lytle was the person who got the project underway in 1887, and was its president from 1889-1906.

¹⁰⁵ Coe, Urling C., *Frontier Doctor: Observations on Central Oregon and the Changing West*, (Corvallis: Oregon State University Press, 1996), 4. Coe arrived in Bend January 10, 1905. He was the city's first medically trained doctor. His book was copyrighted 1940.

¹⁰⁶ Schwantes, Carlos Arnaldo, *The Pacific Northwest: An Interpretive History*, (Lincoln: University of Nebraska Press, 1996), 295, 297. Carlos Arnaldo Schwantes, Curriculum Vitae. Accessed November 13, 2014.

¹⁰⁷ Winch, Martin T., "Tumalo — Thirsty Land," (*Oregon Historical Quarterly*, vol. 85, no. 4., Winter 1984), 347. Winch is considered Oregon's preeminent expert on Tumalo Irrigation District's history because of his seminal, six-part series on the district, published in the *Oregon Historical Quarterly* (1984-86). He served on the district's board. Winch cites U.S.C.A., Sections 641-48; *Water Rights of Deschutes River and Tributaries*, 134 OR 623, 286 P 563, 578-80 (1930). The Carey Act was modified in 1886 and 1901.

¹⁰⁸ Ibid. 349. Winch cites Oregon Session Laws for 1901, 378; Seventh Biennial Report of the Desert Land Board (1925), 40-46. In order to administer the act in Oregon, legislation created the State Land Board, which consisted of the Governor, the Secretary of State, and the State Treasurer. In 1909 the State of Oregon created the Desert Land Board to oversee the duties relative to the Carey Act conducted previously by the State Land Board. The State Engineer was appointed secretary to the Board. See also: Teele, Ray Palmer, *The Economics of Land Reclamation in the United States*, (Chicago & New York: A.W. Shaw, 1927), 67-69, 152-158.

¹⁰⁹ "State View of Irrigation: What Official Biennial Report to the Legislature Says," (*The Bend Bulletin*, January 27, 1905), 4. (See following footnotes).

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Irrigation in the Deschutes Country had begun before the turn of the century and ventures were of two types. One was the cooperative organizations of land owners established to irrigate their farms and ranches. The second was the companies organized as private, for-profit investment enterprises. Local cooperatives included the Squaw Creek Irrigation Company (now called the Three Sisters Irrigation District)¹¹⁰ and the Deschutes Reclamation and Irrigation Company.¹¹¹ The two cooperatives were formed before Oregon adopted the Carey Act, and were characterized by little or no capital investment and minimal engineering. The Deschutes Reclamation and Irrigation Company (later known as the Swalley Irrigation District) was a cooperative formed in 1899. Land was selected under the Desert Land Act. Promoters encouraged settlers to acquire an interest by doing an equal amount of work or by purchasing rights from the company. Settlers did much of the work on the canals and ditches, although laborers were occasionally hired as money was available. They had completed a segregation of 1,280 acres by 1913. Water was diverted to the Swalley Canal at the North Dam. The Squaw Creek Irrigation Company was a cooperative venture between neighboring farms formed in 1895 and used/uses water from Squaw Creek (now named Whychus Creek), not the Deschutes River.

The canal companies formed as commercial investment enterprises under the Carey Act were generally larger in scope than the cooperative ventures. Local commercial projects included a project in the Tumalo Creek¹¹² area, the Arnold Irrigation Company,¹¹³ and two organizations which came under the management of the Deschutes Irrigation and Power Company: The Pilot Butte Development Company and the Oregon Irrigation Company.

In 1902, Congress enacted the Reclamation Act, providing for the construction of irrigation works by the federal government with the proceeds from the sale of public lands.¹¹⁴ Due to the water in the river being over-allocated, in 1913, the state indefinitely withdrew the Deschutes River from further appropriation until a study could be completed in 1935-37.¹¹⁵

THE PILOT BUTTE DEVELOPMENT CO. BEGINS THE CENTRAL OREGON PROJECT

A.M. Drake Arrives on the Deschutes River, 1900

Alexander McClurg (A.M.) Drake, along with his wife Florence W. Drake and hired hand Charles J. Cottor, travelling in their covered wagon to visit friends, arrived in the area that became Bend in June 1900. Cottor served as the couple's guide, cook and general handy man. That year, William H. Staats sold the land along the river that included the future townsite of Bend to Drake for \$4,000. In the fall of that year, construction of

¹¹⁰ *A History of Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 30-31. In 1917, the company became the Squaw Creek Irrigation District. No actual irrigated acres for the period were identified.

¹¹¹ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 713-14.

¹¹² Winch, Martin T., "Tumalo — Thirsty Land," (*Oregon Historical Quarterly*, vol. 86, no. 4, winter, 1985), 388. The Tumalo Creek project did not utilize Deschutes River water until 1923; *Ibid.*, 377. Winch states: "[By 1920], only 4,080 of the irrigated acres were actively farmed, on 102 units, producing, for the most part, grains and hay. An average irrigated acre sold for \$75 and yielded a gross return of \$29. The district's population was 317"; Winch, Martin T., "Tumalo — Thirsty Land," *Oregon Historical Quarterly*, winter 1984 — spring 1986. The irrigation system suffered engineering, managerial, and financial disasters throughout its history; Smith, Dwight A., Cultural Resources Specialist, *Historic Context: The Development of Irrigation in the Bend Area c. 1890 to 1940*, (Oregon Department of Transportation, Salem: Oregon Department of Transportation, June 1991), n.p., Table 1. The organization has been known and operated under different names including the following: Three Sisters Irrigation Ditch Co. (1893); Three Sisters Irrigation Co. (1900); Columbia Southern Irrigation Co. (1905); State "Tumalo Project" (1913); Tumalo Irrigation District (1919); Deschutes County Municipal Improvement District (1922); and Tumalo Irrigation District (1959).

¹¹³ *A History of the Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 17. Water was not delivered by the Arnold Irrigation Company until June 1911; Federal Power Commission, *Report to the Federal Power Commission on Uses of the Deschutes River, Oregon*, (Washington: Printing Office, 1922), 70. A company reported figure of 3,000 acres 'in crop' was provided in 1920.

¹¹⁴ Teele, Ray Palmer, M.A., *Irrigation in the United States*, (New York: D. Appleton, 1915), 12; The Act was also known as the Newlands Reclamation Act, after Nevada Representative Francis G. Newlands who worked for its congressional support.

¹¹⁵ State Engineer, [Presumed to be John Lewis], *Deschutes Project: Oregon Cooperative Work*, (Department of the Interior, U.S. Reclamation Service, Portland, 1914), 10-12.

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the couple's vacation home, a rustic log home, built and decorated in the style of a mountain hunting lodge, was started on the east bank of the Deschutes River in what would become the western edge of Bend.¹¹⁶ Florence Drake decorated the house with Asian carpets and concrete landscape lanterns, purchased during a trip to Asia, and portraits of local Native Americans that she painted.



Alexander M. Drake, Visionary and President of the Pilot Butte Development Company¹¹⁷

Alexander Drake was a wealthy Minneapolis, Minnesota, capitalist who had been interested with his father in railroad and land business. He was "nurtured in the philosophy of development."¹¹⁸ His father, Elias Franklin Drake, was a banker and built railroads in the mid-to-late 1800s in Ohio, Indiana, Minnesota, and in other areas of the central part of the nation, including the first ten miles of railroad in Minnesota, which became a section of the Great Northern Railway. While building railroads, the Drake Company founded several towns, including St. James and Worthington, Minnesota. Elias Drake served three terms in the Ohio House of Representatives, one term in the Minnesota Senate, and retired as president from the St. Paul & Sioux City Railroad in 1880.¹¹⁹ He and James J. Hill, who built the Oregon Trunk Railroad to Bend in 1911, had lived a few blocks from one another in St. Paul, Minnesota.¹²⁰ A.M. Drake learned to form partnerships with those in power and wealth and build coalitions with those of influence.

¹¹⁶ *A History of the Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 212-213. Drake was born in Xenia, Ohio, on January 11, 1859. The family moved to St. Paul, Minnesota, following the close of the Civil War. The couple retired to Pasadena, California, in 1911. He died October 10, 1934, following his wife's death on May 15, 1933; Brogan, Phil F., *East of the Cascades*, (Portland: Binford and Mort, 1964), 181-185.

¹¹⁷ Photograph: Deschutes County Historical Society, unknown date.

¹¹⁸ Clark, Keith, *Redmond: Where the Desert Blooms*, (Portland: Western Imprints, 1985), 4; Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 717.

¹¹⁹ Minnesota Historical Society, Collections of the Minnesota Historical Society, "Elias Franklin Drake Obituary" (Accessed October 15, 2014); Schmiedeler, Tom, Minnesota Historical Society, "Civic Geometry: Frontier Forms of Minnesota's County Seats" (Accessed October 15, 2014).

¹²⁰ Millett, Larry, E-mail to Michael Hall, (April 16, 2014). Miller, an author of several books on the history of architecture in Minnesota, indicated Elias F. Drake's 1866 residence on Lafayette Road was about six blocks from Hill's 1878 home on Canada Street in the Lowertown neighborhood. In 1891 Hill moved to a much larger new residence about a mile-and-a-half from Drake's place. Though, it is not entirely clear how long Drake lived at the Lafayette address, one city directory indicates he was still living there in 1879, so he and Hill were indeed neighbors at one point.

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Florence and Alexander Drake's log lodge and outbuildings on Garden Row on the Deschutes River, c. 1904¹²¹

Alexander Drake's plans for irrigation development and the incorporation and settlement of Bend, Oregon, were born out of significant Eastern wealth and the lure of late nineteenth century capitalism, fueled by the rich promises of the Deschutes River. Drake understood the opportunities before him, including irrigation development and settlement of cities. He encouraged his family's railroad partners and associates to extend a railroad to the area, and to buying, sell, and develop land for business and agricultural purposes.

Drake Incorporates the Pilot Butte Development Company and Files for Water Rights, 1900

Alexander Drake, his wife, and Charles J. Cotter incorporated the Pilot Butte Development Company (PBD Co.) on October 29, 1900, to divert the waters of the Deschutes River and to conduct the water through dams, canals, flumes, ditches, pipes, and siphons to distribute and convey it for irrigation, mining, milling, domestic, manufacturing, navigation, lumbering, power or other purposes, and to supply water to municipal corporations or individuals, for public or private use.¹²² Days later, on October 31, 1900, he initiated the filing process for water rights.¹²³ His water rights were under the doctrine of 'appropriation'.

Irrigation economist Ray Palmer Teele, M.A., explained the meaning of the term: "Under this doctrine anyone who will put water to a 'beneficial use' may take or 'appropriate' it, and the right to continue to take it exists so long as the use continues, provided such use does not conflict with use by one who made an earlier appropriation from the same source."¹²⁴ There was a race to file for water rights on the Deschutes and Drake had posted notices on the river and filed documents with the state. His other plans included building a city, a lumber mill, an electrical power-generating plant, a general store, and a school house.¹²⁵ Drake had regularly been on the Deschutes River and climbed up buttes that gave him an overlook of the terrain. He saw the possibilities of irrigating the huge area east of the Deschutes River, over 2,376 square miles, north across the Crooked River to Trout Creek near the Warm Springs Reservation, east beyond the Dry River and Powell Buttes toward Prineville, and south to the buttes in what is now Newberry Crater National Monument. (See Figure 24.) The area he was contemplating irrigating and bringing a railroad into was 36 miles wide by 66 miles long north to south. He examined the river and land that sloped at an average of 30' per mile and saw the possibilities. He hired L. D. Wiest of Portland as his civil engineer and he hired survey crews to begin surveys three months before Oregon adopted the provisions of the Carey Act (Feb. 1901).¹²⁶

¹²¹ Undated photograph: Deschutes County Historical Society.

¹²² Crook County, Oregon, *The Pilot Butte Development Company Articles of Incorporation*, (vol. 1, page 78, Crook County Clerk, Prineville, Oregon, October 29, 1900).

¹²³ Becker, Frank R., Assistant State Engineer, Under the Direction of Rhea Luper, State Engineer, *A Report on the Central Oregon Irrigation District*, October 19, 1924, (Deschutes County Clerk's Office, Bend, OR.), 138.

¹²⁴ Teele, Ray Palmer, M.A., *Irrigation in the United States*, (New York: D. Appleton, 1915), 85. Teele added: "First in time, first in right", is the classical statement of this doctrine."

¹²⁵ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 717.

¹²⁶ Russell, Israel Cook, *Preliminary Report on the Geology and Water Resources of Central Oregon*, Bulletin No. 252, (U.S. Geological Survey, Department of the Interior, Washington: Government Printing Office, 1905), 94. Russell reported that Drake has had "detailed surveys" made to take water from the Deschutes River at Benham Falls and to conduct it to the "rich lands lying west of Culver... [as] ...a part of an extensive and apparently well-matured plan for the irrigation of a vast extent of now unproductive land in

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1902 Reclamation Contract Between the State of Oregon and the Pilot Butte Development Company

On May 31, 1902, the PBD Co. entered into a contract with the State of Oregon to reclaim the land in Segregation List No. 6, comprising 84,707.74 acres under the Carey Act. (See Figures 9, 10, 13.) Two canals would be constructed: The Pilot Butte Canal and the Central Oregon Canal, to convey water to an area approximately 30 miles wide by 30 miles tall. Ownership of the land was transferred from the federal government to the state of Oregon. It would be sold to the settlers by agents of the PBD Co., in accordance to the location, amount of rock on the land, and the cultivation that was possible.¹²⁷ An annual water delivery assessment was also agreed to. The PBD Co. held liens on the acreage sold and was reimbursed by the State when the irrigation water was delivered to the settler. The State would issue patents to the land to the settlers when it was sold by the PBS Co. and their agents, for terms approved by the state, and when it was settled and irrigated. The company had been engaged with the State to secure the agreement for approximately a year, according to the State Engineer.¹²⁸ Levi D. Wiest was appointed to make the required surveys, and J.C.S. Taber was hired as selecting agent. It was the largest Carey Act contract entered by the State at the time, to be conducted over a period of ten years, with ten percent of the project being completed each year. Construction deadlines were set and construction of the first canal, the shorter Pilot Butte Canal, was on a fast timetable.

The cost of construction and the amount of the lien was fixed at \$848,557, the amount estimated by the PBD Co. that was needed to build two main canals and a water distribution system, which was about \$10 per acre. After an examination made in the field, the State Engineer reported to the State Land Board, "the land is irrigable and the soil is good except for lava dykes 'cutting it up' and there is no alkali; the water supply in the 'Big Des Chutes' is ample for complete reclamation, and the dimensions of the proposed canals are sufficient; the general plan of irrigation is feasible and the work proposed, when executed, should reclaim the land; the estimate of cost is not too high, but the estimate for maintenance is too high."¹²⁹



Levi D. Wiest, Civil Engineer, with wife and daughters¹³⁰

the west-central part of Crook County."

¹²⁷ Central Oregon Irrigation Company, description of the Carey Act Segregation, July 30, 1913, published in the Bend Bulletin, 1.

¹²⁸ Becker, Frank R., Assistant State Engineer, Under the Direction of Rhea Luper, State Engineer, *A Report on the Central Oregon Irrigation District*, October 19, 1924, (Deschutes County Clerk's Office, Bend, OR.), 138, 141. In the spring and summer of 1901 lands were examined and surveyed and a plan of reclamation was prepared for submission to the State Land Board. September 11, 1901, PBD Co. made an application to the State Land Board for a preliminary contract covering the land included in what was later designated as Carey Act Segregation List No. 6. December 2, 1901, a preliminary contract between PBD Co. and State of Oregon was executed. May 31, 1902, a final contract between PBD Co. and State of Oregon, providing for the reclamation of lands in Segregation List No 6, was executed; State of Oregon, *Report of State Land Board Relative to Desert Lands, Granted the State Under the "Carey Act" for the Period Commencing October 1, 1902, and Ending September 30, 1904*, to the Twenty-Third Legislative Assembly [Regular Session], (Salem, Oregon, 1905), 11.

¹²⁹ State of Oregon, *Report of State Land Board Relative to Desert Lands for the Period Ending September 30, 1902*, (Salem, Oregon, 1902), 26-28.

¹³⁰ Undated photograph courtesy of the Deschutes County Historical Society.

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L.D. Wiest, Engineer, 1900-07¹³¹

For thousands of years, one of the greatest engineering challenges has been to bring water to where it is needed, whether to irrigate crops, provide for cities, or to create shipping lanes. Civil engineer Levi D. Wiest was hired by Drake in the fall of 1900 and stayed with the PBD Co. until 1907. He had entered the classical course at Pennsylvania College in 1879 and began to study land surveying. From 1881 to 1883 he pursued courses in drafting and civil engineering at the University of Michigan. By 1884 he was a transit man on a locating party for the Gulf, Colorado and Santa Fe Railroad in Texas. Wiest was employed in the engineering department of the Union Pacific Railway in Nebraska and the Missouri Pacific Railway, working different survey instrument positions. He was a typographer and field draughtsman on locating parties and held positions on the construction crew. He spent ten months in auditing. Next, in Wyoming in 1889, he located approximately 200 miles of canals, laterals, and ditches, which were all built. Arriving in Portland, Oregon, in December that year, he made a survey for the Chehalis, Washington water system and afterward entered the auditing department for the Oregon Washington Railroad and Navigation Company, a system of the Union Pacific. He transferred to a locating party in Idaho for the Oregon Short Line and later to a construction party in Oregon where he worked to reconstruct the main line of the Union Pacific through the Columbia River Gorge.

On October 1, 1900, Wiest began work in Bend for A. M. Drake, serving as the chief engineer of the Pilot Butte Development Company (PBD Co.) until 1904. From the time of the company's early organization, he supervised crews who made all the surveys of the canal routes and land examinations required under the Carey Act for segregation and for construction purposes. He was the vice-president of the PBD Co., and his duties went beyond canal work to securing land and water rights and similar matters. He surveyed and drew the plans for the Bend townsite plat; designed and erected buildings for the company; designed the PBD Co. sawmill; designed Bend's first water system; and designed Bend's power dam.¹³² When the Deschutes Irrigation and Power Company took over operations of the canals in February 1904, CC Hutchinson brought his civil engineer, Joseph G. Kelley with him. Wiest was replaced as Chief Engineer for canal construction in April 1904 by Kelley, a hydraulic engineer, formerly with the US Army Corps of Engineers. Wiest continued as his assistant and as assistant project manager and worked on other projects for the firm. Wiest became active in the new city of Bend and served as a school board member. Kelley resigned after two months of work in June of 1904, due to a disagreement with management, and returned to Portland.¹³³



1901 wedding photo of Mary Fitzmaurice Redfield and Charles M. Redfield¹³⁴

¹³¹ Wiest, Levi D. Biography from *Deschutes Pioneers Gazette*, Deschutes County Historical Society, and Family Sources. (Compiled by Pat Kliever, Bend, Oregon, 2014).

¹³² Family history indicates he saw an advertisement in the Portland *Oregonian* placed by Drake and traveled to Prineville, the Crook County seat, to meet him, then visited what would become Bend, and accepted the position. Beginning about 1907, Wiest was the Arnold Irrigation system engineer for about fifteen years. During 1908-1910, he surveyed a canal for the Suttle Lake Improvement District. From 1923-1927, he surveyed for a railroad between Bend and Sisters for logging purposes. He served as school board director for at least seven years in the school's formative years. He was involved in a number of other enterprises.

¹³³ "New Company in Charge: Deschutes Irrigation & Power Company Took Formal Control Yesterday," *The Deschutes Echo*, April 2, 1904), 1.

¹³⁴ 1901 photo from the Redfield Family Collection, courtesy of Ann Gallagher, Denver Colorado.

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Charles M. Redfield

Also, in April of 1904, the irrigation company hired a third civil engineer, Charles Monteith Redfield. Redfield took over as the Chief Engineer for the irrigation company in 1904 and served in that role until shortly after Central Oregon Irrigation District took over the irrigation system in 1921. He was born in Lebanon, Oregon, in April 1871. He grew up in Albany, Oregon, where his father, Francis Mylon Redfield, owned a grocery store. He graduated from the Albany Collegiate Institute in Linn County, Oregon, and attended an engineering school in San Francisco, California, for one year. He worked for the Corvallis & Eastern Railroad owned by Andrew B. Hammond and financed by Henry Huntington and Thomas Hubbard. For that company, he surveyed a railroad route from Detroit, Oregon, over "Hogg Pass" (Santiam Pass) and across eastern Oregon to Idaho. Although the railroad was not extended beyond the lumber mills near Detroit, in 1907 the railroad and surveys were sold to the Southern Pacific Railroad for a huge profit. Redfield spent three years with an engineering party in South America. He next worked as an engineer in Morro, Sherman County, Oregon, by 1900. He married Mary Lydia Jeanne Fitzmaurice from Ireland in Moro in 1901. In 1903 Redfield worked for the Union Pacific Railroad in Omaha, Nebraska.¹³⁵ The family moved to Bend in April 1904 where Charles Redfield began work for the Deschutes Irrigation and Power Company, which had recently taken over the Central Oregon Project. In two months, he was promoted to Chief Engineer, a position he held for 17 years. He finished the Pilot Butte Canal, began and completed the Central Oregon Canal, designed the Powell Butte Siphon, supervised the construction of the North Dam and North Canal and enlarged the wooden flume at the intake for the Pilot Butte and Central Oregon Canals.

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The Redfields were community leaders. At the end of 1904, Charles M. Redfield was elected to a position on the new Bend City Council for the newly incorporated town and was sworn in along with the first mayor, A. L. Goodwillie, on January 10, 1905, during the city's first city council meeting. He was a founding member of the Bend Masonic Lodge # 139 on June 17, 1909. The lodge purchased the Drake's home in 1909, when the Drakes moved to Pasadena, California. The Drake house served as the organization's office and meeting location until 1952. Mrs. Redfield was a founding member of the Redmond Presbyterian Church in 1906 and the Women's Guild at the Holy Trinity Episcopal Church in Bend in 1908.¹³⁶

After getting his office and records in order, Redfield left the newly-formed Central Oregon Irrigation District (COID) in 1921. He became a consulting engineer and worked on projects for many of the local irrigation districts. In 1923, he surveyed and measured the main canal and all the laterals for the Deschutes Reclamation and Irrigation Company to determine their capacity. He was the first superintendent of the Bend Water Department on April 1, 1926, when the city purchased the water system from the Bend Water, Light & Power Company. With W.E. Guerin and A.L. Goodwillie had incorporated the Bend Light, Water and Power Company in 1905. The firm purchased the PBC Co.'s rights to construct and maintain electric lines, gas, water, and other public utilities of the city. The city water system was in operation by July 1905.¹³⁷ After the pioneer irrigation engineer had resided in the Central Oregon country for 25 years, he died on a trip to Emmett, Idaho, on March 22, 1929, at age 57.¹³⁸

Pilot Butte Development Company (PBD Co.) Plans and Building the Flume, 1903

The joint Pilot Butte Canal and Central Oregon Canal headgate on the Deschutes River,¹³⁹ referenced in a local newspaper in February 1903, and in the 'Becker Report, indicated engagement of the company with the

¹³⁵ Telephone interview with his grandson, Charles Morris Redfield, Mill Valley, CA. 2017.

¹³⁶ Deschutes County Historical Society, *A History of the Deschutes Country*, 24, 52, 58, 83, 91.

¹³⁷ Crook County, Oregon, *Articles of Incorporation of The Bend Water Light and Power Company*, (Crook County Clerk, Prineville, Oregon, November 11, 1904); The other partner was George C. Steinemann, an attorney; "Water Franchise," (*The Bend Bulletin*, February 10, 1905), 1; "Water, Light and Power Company," (*The Bend Bulletin*, November 11, 1904), 4; Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 729; "Water Pipes Arriving," (*The Bend Bulletin*, April 14, 1905), 1. A crew of twenty-five workers installed the water system from the river up to Wall Street and along Wall Street nearly to Oregon Avenue.

¹³⁸ Obituary, Bend Bulletin, March 19, 1929, 1. Ancestry.com. Wikipedia.

¹³⁹ I.C.S. Staff, *Dams—Irrigation*, (Scranton: International Textbook Company, 1906), 38. This source was a college textbook for engineering students with an emphasis on mathematical equations; it is used here for its definition. For additional information on the subject, see Davis, Arthur Powell, D.Sc. and Herbert M. Wilson, C.E., *Irrigation Engineering*, (New York: John Wiley & Sons, Seventh

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State Land Board in the period before their Carey Act contract was signed. The report suggests that the headgate was built by early 1903.¹⁴⁰ The article indicates some excavation and clearing of rock along the flume right-of-way had been done "two years before." It is possible that Wiest was ready to begin the headgates even before the contract was signed between the PBD Co. and the State, as plans were moving forward in spring and summer of 1901, as suggested by Becker's 1924 report.

The plans of the PBD Co. in July 1903, were to build the irrigation canal from the headgate at a point on the Deschutes River about three miles upstream from (south of) the future City of Bend. For about a mile-and-a-quarter below the headgate, an enclosed wooden flume¹⁴¹ would carry the water over nearly solid rock and some caverns (lava tubes). Wiest designed a lumber mill to be assembled near the flume to produce the massive amount of lumber needed for its construction. That lumber would need to be planed and dried to reduce the chance of warping. It was thought that designing the flume was not considered difficult and would be the same as done for other canals in the West and in the region, but this assumption turned out to be a costly mistake that led to Wiest's replacement by Kelley and Redfield. No canal work was to be performed until the flume at the intake was completed, as it was necessary to bring water in the canal to the men and horses at the construction camps, as they moved north and east away from the river. At first, work progressed rapidly and economically. At the end of July 1903, six men were clearing right-of-way for the flume through the river's canyon. Trees near the flume were cut away and a space 25' wide underneath was cleared of all combustible matter. Laborers were gradually added to the crew as the construction got underway.¹⁴²

The PBD Co. lumber mill began operation at intervals as the machinery was tested and adjusted to expeditiously produce lumber in August 1903.¹⁴³ The firm began to saw and pile the estimated 700,000 board feet of lumber that would be required for the flume. The flume would follow the general line of the Deschutes River Canyon, cutting across chasms on wooden trestles as high as 25'. With the lumber mill at the lower end of the flume, a false flume bottom was to be laid from the mill site to the headgates, which would serve as a roadway for the transportation of materials for the building of the flume. As portions of the flume were completed, workmen would move back down the roadway toward the mill, thus preventing the marring or soiling of the finished flume.

Edition, 1919), 247-262, Chapter XIV, "Canal Structures." Davis was formerly Director and Chief Engineer, U.S. Reclamation Service. Wilson was formerly Chief Engineer and Irrigation Engineer, U.S. Geological Survey.

¹⁴⁰ "Desert Will Be Irrigated," (The DesChutes Echo, February 21, 1903), 1. The article states, "The headgates of the proposed canal are near here"; Working on the Flume Line, The Bend Bulletin August 28, 1903¹⁴⁰ ('Becker Report'); Becker, *A Report on the Central Oregon Irrigation District*, October 19, 1924, 138, 141. In the spring and summer of 1901 lands were examined and surveyed and a plan of reclamation was prepared for submission to the State Land Board. September 11, 1901, PBD Co. made an application to the State Land Board for a preliminary contract covering the land included in what was later designated as Carey Act Segregation List No. 6.

¹⁴¹ Etcheverry, B.A., *Irrigation Practice and Engineering: Volume II, Conveyance of Water*, (New York: McGraw Hill, First Edition, 1915), 198. According to Etcheverry, Head of the Department of Irrigation, University of California, in 1915, "A flume may be either a bench flume, supported on a shelf or cut in the side hill, or may be an elevated flume for the conveyance of water over a depression or drainage channel. In steep side-hill work the uphill side of the flume may be supported on a narrow shelf and the downhill side held up by posts or other form of substructure." These support structures were generally referred to as trestles.

¹⁴² "Work on The Ditch: Plans and Progress of Pilot Butte Development Co.," (*The Bend Bulletin*, July 31, 1903), 3.

¹⁴³ "Local Events of the Week," (*The Bend Bulletin*, August 21, 1903), 3; "Local Events of the Week," (*The Bend Bulletin*, July 24, 1903), 3. A 45-horse-power engine provided the mill's power. Two loggers had delivered 200,000 board feet of timber, one-third of their contract.

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1904 view to the northeast of stacked lumber, the clearing through the pine forest, and the shared wooden flume. 1.5 miles from the intake of the Central Oregon Project the flume split into the Pilot Butte Canal on the left (north) and the Central Oregon Canal on the south.¹⁴⁴

The work on the flume was expected to be done in November 1903, but the crews were behind schedule. At the end of October nearly 1000' of trestle for the flume was completed and the working floor was being laid from the mill up toward the headgates; work was proceeding at 200' to 400' per day.¹⁴⁵ Only half of the flume was completed by the first week of December.¹⁴⁶ Thereafter, four wagon loads of scrapers and a breaking plow arrived. But low wages resulted in a smaller than desirable workforce. Difficult working conditions and winter weather precluded canal work, though some blasting was completed at the intake.¹⁴⁷ In February 1904, the flume was reported to be 1.5 miles in length, with trestle supports set 8' apart set on solid rock. It was to be finished by March; however, work toward completion did not occur.¹⁴⁸ No further significant work by Drake's PBD Co. was conducted at that time.

Another assumption proved inaccurate: building the canal in an open channel for twenty miles below the flume, beyond the surface rock flow, was also expected to be comparatively easy work. The company thought that for most of the distance, natural channels would be followed, and the canal water would "wash its own way" through the light volcanic soil. The remaining canal work, it was said, would "amount to little more than leading the water along the surveyed course."¹⁴⁹ The company expected to deliver water to the Bend townsite before the end of the year.

James H. Drake and James G. and Arthur L. Goodwillie of Chicago Visit the Deschutes, 1903

As early as 1891, A.M. Drake sat on the board of directors of the Chicago, St. Paul & Kansas City Railway Company.¹⁵⁰ Just over a decade later, in November of 1903, Colonel James H. Drake, and James G.

¹⁴⁴ 1904 Deschutes County Historical Society Photo.

¹⁴⁵ "Progress of Irrigation Flume," (*The Bend Bulletin*, October 23, 1903), 3.

¹⁴⁶ "Work On the Flume," (*The Bend Bulletin*, November 27, 1903), 3.

¹⁴⁷ "Pushing the Ditch Work," (*The Bend Bulletin*, December 14, 1903), 3. Drake offered tents in December weather and sheds for the animals were yet to be erected. Two-thirds of the flume trestle was completed; the flume proper's extent of completion is not stated. It is not evident if the 'intake' specifically indicates the headgates, or if the blasting is to enlarge the stretch between the headgates and the flume; "P. B. D. Co.'s Work," (*The Bend Bulletin*, December 11, 1903), 3. The cold weather made work slow. The ground was frozen several inches deep. Excavation work was moved north near Long Butte where the soil was not frozen.

¹⁴⁸ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10. It is possible the extent of the flume's completion was overstated for investors, or what component of the flume was completed was simply misunderstood, i.e. the entire flume was not completed, though the trestle structure may have been.

¹⁴⁹ "Working On the Flume Line," (*The Bend Bulletin*, August 28, 1903), 3. In addition to the excavation indicated to have been done "two years before," it is possible that Wiest began the headgates, referenced in the *DesChutes Echo* of February 21, 1903, and cited in the first sentence of this section, also in 1901; "Clearing Flume Right of Way," (*The DesChutes Echo*, August 8, 1903), 1. A track was to be laid along the flume route for the purpose of conveying material for the structure, as the route was inaccessible to teams.

¹⁵⁰ *Fourteenth Annual Report of the Board of Railroad Commissioners for the Year Ending June 30, 1891, State of Iowa*, "Annual Report of the Chicago, St. Paul & Kansas City Railway Company for the Year Ending June 30, 1891," (Des Moines: State Printer, 1891), 258; "Chicago, St. Paul & Kansas City Railway Company," *Annual Report of the Railroad and Warehouse Commission of Minnesota to the Governor for the Year Ending Nov. 30, 1892*, (Minneapolis: Harrison & Smith Printers, 1893), 235; "Thompson v.

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Goodwillie and his son Arthur L. Goodwillie, all of Chicago, spent ten days with Drake and his wife on the banks of the Deschutes. Colonel Drake was a cousin to A.M. Drake. The Colonel was formerly the land commissioner of the St. Paul & Sioux City Railroad (the same railroad as Elias Drake was president) and its assistant manager, but more recently had been a Chicagoan, and for twenty-five years had been a member of the Chicago Board of Trade.¹⁵¹ Elias F. Drake died in 1892, leaving the Colonel as the elder family member and confidant that had been associated with him. James H. Drake had experience acquiring congressional land grants and in supervising engineering and construction, finance and other matters.¹⁵² He was not a Board of Trade commission member, nor did he represent a bank, brokerage house or any other type of firm. He was an independent speculator-investor. He held substantial wealth and understood sizeable investments.¹⁵³

James G. Goodwillie was for thirty years engaged in extensive lumber manufacturing as Goodwillie & Goodwillie at Wausau, Wisconsin, and then was a member of Goodwillie Bros. in Chicago. His firm had built wooden boxes since 1873 and was the oldest manufacturer of boxes in the United States, with plants in several cities.¹⁵⁴ His son, A. L. Goodwillie, had recently graduated from the prestigious Williams College in 1901 and then worked for a large banking concern in Chicago.¹⁵⁵

Alexander Drake took his guests for a tour of the Deschutes River area, and to view the PBD Co.'s irrigation works and the lands to be irrigated. They rode in a wagon along the proposed route of the Pilot Butte Canal to Forked Horn Butte near the future city of Redmond to see the broad area to be served by the canal and to gain an understanding of the Deschutes country.¹⁵⁶ Before leaving the area, Colonel Drake commented on what they had discovered during their visit:

"This country is a revelation to us. Nobody can get an adequate conception of this section by reading about it. It is an empire and I am fairly astonished at the display of native resource and possibilities of development that I observe here. Here I find actually present, and in a form to appeal to any business judgment, such native wealth and much opportunity for using it that I am surprised and gratified beyond expression."¹⁵⁷

Chicago, St. P. & K.C. RY. Co. et al.," (Circuit Court, D. Minnesota, First Division, April 14, 1894), 778. The court document indicates it was organized under the laws of the State of Iowa; Park Genealogical Books. The railroad was started in 1887 and ended in 1893.

¹⁵¹ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6.

¹⁵² *Legislative Documents Submitted to the Twenty-third General Assembly of the State of Iowa, Which Convened at Des Moines, January 13, 1890, vol. vi*, (Des Moines: State Printer, 1890). As an example, in the year reported, the Chicago, Milwaukee & St. Paul Railway Company received congressional grants in Iowa of 372,133.27 acres of land. In that year, the Chicago, St. Paul & Kansas City Railway Company, the railroad on whose board A.M. Drake is known to have sat in 1892, the amount of stock representing railroad in Iowa was \$8,538,978.91 (p. 48). The actual cash value of the railroad and equipment was \$43,737,728.50 (p. 55).

¹⁵³ Stone, George F., *The Forty-Second Annual Report of the Trade and Commerce of Chicago for the Year Ending December 31, 1899, Compiled for the Board of Trade*, (Chicago: The J.M.W. Jones Stationery and Printing Co., 1900), 239; Stone, George F., *The Forty-Fourth Annual Report of the Trade and Commerce of Chicago for the Year Ending December 31, 1901, Compiled for the Board of Trade*, (Chicago: The J.M.W. Jones Stationery and Printing Co., 1902), 231; Keller, Megan, Project Archivist, CME Group Collections, University of Illinois At Chicago, E-mail to Michael Hall, (March 23, 2015). James H. Drake was a member of the Chicago Board of Trade from Nov. 13, 1876 to Jan. 14, 1903.

¹⁵⁴ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6; Leonard, John William, *The Book of Chicagoans*, (1911, vol. 2), 273. It appears the Wausau firm was called Goodwillie & Goodwillie, 1873-1890, and the Chicago firm, 1890 to at least 1911 (the publication date of this book), called Goodwillie Bros. Another plant was in Manistique, Michigan.

¹⁵⁵ "A. L. Goodwillie Is Dead At 67," (*Lynchburg News*, Lynchburg, Virginia, January 15, 1946), n.p. The obituary says, "He was attracted to the West from his native Chicago by the potentialities of a huge irrigation plan. With a friend, he purchased large tracts of land in the area. When only twenty-three he was named mayor of the town he founded, and received nation-wide recognition as the youngest 'town father' in the country; Family Search, "Arthur Lawson Goodwillie," (Individual Record, Pedigree Resource File); "First Mayor Dies in Virginia," (*The Bend Bulletin*, January 22, 1946), 1.

¹⁵⁶ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6; "Why It Is Called Forked Horn Butte," *The Redmond Spokesman*, December 14, 1911), 2. According to the local story, "In the early days a homesteader went hunting on the butte and killed a forked horn deer, and ever since that time in speaking of the locality it has been designated as 'Forked Horn Butte'."

¹⁵⁷ "A Revelation to Chicagoans," (*The Bend Bulletin*, November 6, 1903), 6.

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Alexander and Florence Drake accompanied the group to Portland, where they took the train to the Midwest. They were absent from the Deschutes Country for about two months.¹⁵⁸ Returning in January 1904, Drake announced "that important plans had been made for the watering of the wilderness, the development of Bend and the colonization of the Deschutes Country. He had been as far east as Chicago 'to lay plans for immigration' and to attend to other business connected with his irrigation enterprises."¹⁵⁹

Contesting Irrigation Companies: PBD Co. and Oregon Irrigation Company, 1900-1903

A.M. Drake and Charles C. Hutchinson, president of the Oregon Irrigation Company (OI Co.), were early irrigation development partners, then competitors, in the Deschutes Country, which provided the impetus for a contentious relationship. "Inevitably there was competition," wrote historians Keith and Donna Clark in "Pioneers of Deschutes Country," *High & Mighty: Select Sketches about the Deschutes County*.¹⁶⁰ Describing the Drake-Hutchinson contest, they say:

"Hutchinson was on the Deschutes with engineers making surveys and water filings two years before Drake appeared in 1900. Since Hutchinson needed capital, in 1899 he wrote to Drake at Spokane, representing to him the potential profits in irrigation development near Bend. Drake came, assessed the prospect and asked for Hutchinson's proposal. He was offered half of the company stock, with agreement that he be president and manager, conditional on his supplying needed capital. Drake agreed to the terms and paid for surveys. About two months afterwards, Drake informed Hutchinson that he saw no reason for partnership in the venture, in effect elbowing Hutchinson aside."¹⁶¹

The two companies then proceeded to make new water filings on the upper Deschutes River, in two instances side by side. Hutchinson protested to the General Land Office, which dismissed it. Secretary of the Interior Hitchcock affirmed the decision and recognized the legitimacy of the PBD Co.'s claim.¹⁶²

In early December, 1903, Hutchinson returned to revisit the Deschutes Country after being gone "for a year or more," with W.E. Guerin and H.D. Turney, of New York, who represented capitalists favorable to investment in irrigation development.¹⁶³ A January 20, 1904 letter to the State Land Board, composed of the Oregon Governor, Secretary of State and the Treasurer, from Hutchinson indicated his plans to move forward on a number of matters that conflicted with the PBD Co.'s plans, which Drake had previously protested in a letter to

¹⁵⁸ "Local News," (*The Bend Bulletin*, November 13, 1903), 3; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, January 27, 1931), n.p.

¹⁵⁹ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, January 27, 1931), n.p. Brogan article, Drake statement.

¹⁶⁰ Vaughan, Thomas, ed., Keith and Donna Clark, "Pioneers of Deschutes Country," *High & Mighty: Select Sketches about the Deschutes Country*, (Portland: Oregon Historical Society, 1981). This text was researched and written by those who lived, or had lived, in Deschutes country or were otherwise particularly familiar with its characteristics and the history surrounding it. Keith Clark's involvement with *Oregon Historical Quarterly* and the *Oregon Historical Society Press* spanned many years. Besides contributing to *High and Mighty*, he authored *Redmond: Where the Desert Blooms*, he co-edited with his wife, Donna, *Daring Donald McKay, or The Last War Trail of the Modocs*, and was a contributor to the *Oregon Historical Quarterly*, and served for many years on the OHQ Editorial Advisory Board. With Lowell Tiller, he co-authored *Terrible Trail: The Meek Cutoff, 1845*. Clark also served as president of the Deschutes County Historical Society and on the Deschutes County Historical Landmarks Commission. He taught history at Central Oregon Community College; "Keith Clark Obituary," *Oregon Historical Quarterly*, 2002, *HighBeam Research*, (November 15, 2014); Oregon History Project, (November 15, 2014).

¹⁶¹ Vaughan, ed., "Keith and Donna Clark, "Pioneers of Deschutes Country," *High & Mighty: Select Sketches about the Deschutes Country*. The Clarks cite a letter, "C.C. Hutchinson to Binger Herman," dated October 10, 1901, in author file. Binger Herman, of Oregon, was commissioner of the General Land Office.

¹⁶² *Ibid.*; Becker, Frank R., *A Report on the Central Oregon Irrigation District*, 1924, "Report: Duty of Water," 1-2. Becker summarized Hutchinson's plans. The Oregon Irrigation Company had been incorporated November 14, 1899, by C.C. Hutchinson and others, and made application to the board in 1901 for a contract to reclaim lands in Central Oregon. The application was protested by A.M. Drake. On January 21, 1902, upon request of the Oregon Irrigation Company, all papers and maps previously filed with the board were withdrawn and returned to the company. On December 22, 1903, the Oregon Irrigation Company made a second application for a contract to reclaim lands in Central Oregon. This application was also protested by Drake. The lands included were designated as Segregation List No. 19, an area of 56,006.90 acres.

¹⁶³ "Hutchinson Again Here: Brings New Yorkers to Look Over His Irrigation Project," (*The Bend Bulletin*, December 4, 1903), 3. The report said: "The result of their inspection was not made known before the party left for Portland Wednesday, but there was more or less talk about starting operations on a large scale in the spring [of 1904]."

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the State Land Board. Hutchinson's plan to build a dam across the Deschutes River was a threat to the PBD Co., as it could divert needed water away from the intake for the Pilot Butte and Central Oregon Canals that was under construction downstream from the proposed dam. Hutchinson pointed out to the land board that the applicable law allowed a dam located on private land to be built.¹⁶⁴ The letter further indicated that his Oregon Irrigation Company had complied with all of the requisites for a contract for reclamation.¹⁶⁵ The letter refuted Drake's responses, pointing out that the land board's own engineer had made an examination of the feasibility of the plan, and that the Oregon Irrigation Company would demonstrate to the satisfaction of the land board its financial ability to conduct the project.¹⁶⁶ The plans called for, among other actions, irrigating northeast from a diversion point, similar to Drake's plan.¹⁶⁷

On January 30, 1904, the PBD Co. had another setback when its sawmill, which was producing lumber for flumes and other irrigation structures and buildings, burned. The mill had competed cutting rough lumber for the flume, but the lumber had not been planed. The mill crew saved the planer; however. The sawmill proper was "totally ruined and the engine was subjected to a great heat and many parts were ruined."¹⁶⁸

Also in January, 1904, Hutchinson, who had "done no actual construction work,"¹⁶⁹ brought Eastern capitalists and a civil engineer, Joseph Kelley, into the area for nearly a week.¹⁷⁰ The state engineer also arrived then to inspect the progress made by the PBD Co. and to estimate the value of its work.¹⁷¹ Drake's contract with the state was for work over ten years, calling for at least ten percent of the project to be done each year, or about \$85,000 of construction to be conducted by the end of a year, beginning six months after signing the contract of May 31, 1902. By December 1903, a year-and-a-half had passed; Drake's deadline to produce 10% of the project had passed. If another company with a feasible plan and the financial ability to conduct the project was available, an unfavorable report on the extent of the PBD Co.'s construction by the state engineer to the State Land Board could result in Drake being out of compliance in his contract with the state and being compelled to sell out. By mid-February, Hutchinson and his capitalists were meeting with the State Land Board to take advantage of the situation.¹⁷²

THE DESCHUTES IRRIGATION & POWER COMPANY TAKES OVER THE DELAYED PROJECT.

Deschutes Irrigation & Power Company Buys Out PBD Co. and Oregon Irrigation Company in 1904

A timely consolidation and takeover of the rivals seemed like the best option. In an action, the *Oregonian* called "the most important step which has yet been taken in the work of reclaiming the vast empire of interior

¹⁶⁴ Oregon State Archives, Letter from A.M. Drake, Pilot Butte Development Company, to State Land Board, January 6, 1904, Desert Land Board Reclamation Records, no. 10-18, box 15, folder 2; Oregon State Archives, Letter from C.C. Hutchinson, Oregon Irrigation Company, to State Land Board, January 20, 1904, Desert Land Board Reclamation Records, no. 10-18, box 15, folder 2.

¹⁶⁵ *Ibid.* The requisites required having a number of documents filed showing matters including: having an engineer and selecting agent appointed by the land board, a map showing plan of contemplated irrigation and source of water, field notes of survey showing connections of termini with ditch, statement of available water, list of lands selected, contracts with the Secretary of Interior and State, application for contract with an estimate of reclamation costs and annual maintenance charge, and deposit for fees required by the State and the United States land office.

¹⁶⁶ *Ibid.*

¹⁶⁷ *Ibid.*

¹⁶⁸ "Two Fires: Sawmill Burns Here, Pilot Butte Development Company's Mill Destroyed Last Saturday Afternoon — Will Not Be Rebuilt," (*The DesChutes Echo*, February 6, 1904), 1. "Lumber to Build: Pilot Butte Mill Is Now In Full Operation," (*The Bend Bulletin*, May 13, 1905), 1. Rebuilding the mill to plane (finish) the flume lumber would take over four months.

¹⁶⁹ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10. Hutchinson had made a number of surveys.

¹⁷⁰ "Work to Begin Soon: The Oregon Irrigation Company Making Its Final Arrangements," (*The DesChutes Echo*, January 30, 1904), 1. Capitalists included Guerin, Turney, and Elliot. The engineer was J.G. Kelley, who would become the D. I. & P. Co.'s chief engineer.

¹⁷¹ "State Engineer in Town," (*The DesChutes Echo*, January 30, 1904), 1. E.A. Hammond was the new State Engineer.

¹⁷² "Work Will Soon Begin: Oregon Irrigation Company Completing Arrangements with State Land Board," (*The DesChutes Echo*, February 13, 1904), 1. Capitalists included Turney, Guerin, Johnston, and Elliott. One or more provided letters from "Governor Herrick of Ohio and from a number of strong Eastern banks."

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Oregon,¹⁷³ the Deschutes Irrigation and Power Company (D. I. & P. Co.) incorporated and representatives went before the State Land Board to announce they had bought out both the rights of the PBD Co. and the Oregon Irrigation Company in mid-February 1904. The D. I. & P. Co. was capitalized at \$2,500,000. The State Land Board was informed that the PBD Co.'s rights and contract were bought out at \$70,000; the rights of the Oregon Irrigation Company, owned by C.C. Hutchinson, were obtained at about half that amount. Drake's buyout price indicates he did not meet the \$85,000 objective (10% of the project's value) set in the contract with the state.

"We will have water running in our flumes inside of sixty days," boasted W.E. Guerin, Sr. "Inside of four months, and possibly in three months, we will have water on 25,000 acres of desert land."¹⁷⁴ Guerin was no stranger to challenging projects. He built the Palmer cut-off on the Northern Pacific Railroad as president of the Seattle and San Francisco Railroad & Navigation Company, bringing the mainline into Seattle, and sold its rights to the Northern Pacific.¹⁷⁵ His promises that day stemmed from a career of successfully satisfying both railroad investors and government regulators. There was a message to investors in the 25,000-acre figure promised in three or four months: Lands would be irrigated in the time promised; irrigated lands would be selling soon; ten percent of the company's \$2,500,000 capitalization (investment), \$250,000, equaling one-third of the contract price with the state, would be returned to the company soon;¹⁷⁶ and the return on their investment was safe and forthcoming.¹⁷⁷ The promise was also made to potential settlers that the lands would be ready for farming soon. The State Land Board, consisting of the governor and the state's three other top elected officials, would have requested specific goals and a well-defined timeline.¹⁷⁸ It had been understood that negotiations were pending for consolidation of the two enterprises and the land board expressed satisfaction in the news, as it felt a contest between the two companies of certain water rights had resulted in not much progress being made, and that the irrigation work in the Deschutes Country should be undertaken under one management.¹⁷⁹ The primary components of the transaction were completed by mid-March.¹⁸⁰

¹⁷³ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10.

¹⁷⁴ "Water In Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6; "Articles of Incorporation: Filed in the Office of State at Salem," (*The Sunday Oregonian*, February 14, 1904, Portland, OR.), 1. Deschutes Irrigation & Power Company, Portland, Oregon, was incorporated on February 10, 1904, by W.A. Munly, George H. Hill, and E.B. Holmes, all of Portland; "The Pilot Butte Development Co. to Deschutes Irrigation & Power Co.," [Filed] March 14, 1904, vol. 2, pp. 449-452, (Deschutes County Clerk's Office, Bend, Oregon [Crook County Clerk's Office, vol. 12, p. 189]). Date of March 14, 1904, and sum of \$848,557.00 are indicated in document; "Reclaim Desert Lands: Large Company Will Operate in Crook County — Begin at Once," (*Daily Capital Journal*, February 15, 1904), 3; "Deschutes Irrigation & Power Co. Organized: P.B.D. Co. Sells Out," (*The DesChutes Echo*, February 20, 1904), 1.

¹⁷⁵ "Feeling In the East," (*The DesChutes Echo*, May 14, 1904), 1.

¹⁷⁶ Figures are as follows: 25,000 acres x an average of \$10 per acre = \$250,000, i.e. 10 percent of the capitalization; \$250,000 / \$848,557 (contract price) = 33.9 percent, i.e. 1/3 of the contract price would returned to the company immediately; therefore, the remaining irrigation development would occur rapidly, as well, and afterward profit would be realized. See following footnote for further explanation.

¹⁷⁷ "Concerning Water Rights," (*The DesChutes Echo*, (June 25, 1904), 1. "State View of Irrigation: What Official Biennial Report to the Legislature Says," (*The Bend Bulletin*, January 27, 1905), 4. This article indicates the price fixed ranged from \$2.50 per acre for tracts wholly unfit for cultivation to \$14.75 per acre for tracts all tillable and irrigable, the average being the amount fixed in the contract between the state and the company of \$10 per acre.

¹⁷⁸ Research at the Oregon State Archives did not identify any minutes or other documents associated with the February 1904, announcement which could illuminate these matters.

¹⁷⁹ "Water in Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6

¹⁸⁰ United States Circuit Court of Appeals for the Ninth Circuit, Frank R. Shinn and Louis G. Addison, and Frank R. Shinn and Louis G. Addison as a Committee for Certain Bondholders, *Complainants Appellees*, vs. The Deschutes Irrigation and Power Company, a corporation, A.F. Biles, Howard Contract Company, a corporation, Merchants Savings and Trust Company, formerly Merchants Investments and Trust Company, an Oregon corporation, *Respondents Appellees* vs. R.S. Howard, Jr., Receiver of the Title Guarantee & Trust Company, *Intervenor Appellant* vs. Alexander M. Drake and Pilot Butte Development Company, *Intervenors Appellees*, No. 1915, 15. The 1915 circuit court decision indicates that on February 12, 1904, a "Contract between A.M. Drake and Turney, Johnston and Guerin for rights of the Pilot Butte Development Co." was executed. The same day, "Assignment of Drake Contract by Turney and others to The Deschutes Irrigation & Power Company" was concluded. Also, that same day, "Assignment of rights of Oregon Irrigation Co. to The Deschutes Irrigation & Power Co., viz., its capital stock" was affected. On March 14, 1904, "Conveyance by Pilot Butte Development Co. to The Deschutes Irrigation & Power Co., of rights of way, etc." was finalized. The same day, "Assignment of Contract with State Land Board by Pilot Butte Development Co. to The Deschutes Irrigation & Power Co." was completed.

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The principal backers of the new enterprise were "understood to command unlimited means and intend to push the work to completion as rapidly as possible." They were largely interested in railroads and the oil and gas fields of Ohio and Indiana.¹⁸¹ In addition to W.E. Guerin, Sr., of New York, the capitalists included J.O. Johnston and H.D. Turney, both of Columbus, Ohio. Johnston was general manager of the Columbus Gas Light and Heating Company, Columbus.¹⁸² Turney held investments in oil and gas and had operations in New York City.¹⁸³ Portland stockholders included Harvey W. Scott, editor of *The Oregonian*, and J. Frank Watson, president of the Merchants Bank. Others were R.H. Elliott, mayor of Birmingham, and chief engineer of the Louisville & Nashville Railroad; Geo. W. Sinks, president, Desher National Bank; and John Desher, both of Columbus. J.O. Johnston, elected vice president, would be the project's general manager. His work in the gas fields of Ohio was highly respected and his experience working in rock would be an asset to the group.¹⁸⁴ C.C. Hutchinson was a stockholder, board member, and land commissioner.¹⁸⁵ W.E. (Eugene) Guerin, Jr.,¹⁸⁶ would be a part of the vanguard, involved in establishing and managing many essential settlement businesses, and in promotion of the area. Drake retained ownership of the townsite and other properties and rights.¹⁸⁷

J.O. Johnston, Vice President and General Manager, D. I. & P. Co.

J.O. Johnston drew from his experience in the oil and gas industry in Ohio to develop the specifications for the steam-powered drills and to devise a system to use them effectively. He was not a college-trained geologist or engineer. However, his practical geological knowledge, understanding of engineering, and, importantly, his acumen out in the field made a significant difference in the successful outcome of the Central Oregon Project. His background in natural gas field development did not provide experience with lava as it is found in the Deschutes Country, but he had a respected, proven record of success working under unique geological conditions.¹⁸⁸ His drilling experience proved itself useful to the project, too, in the difficult, elemental rock of the Deschutes-Columbia plateau, as he determined the use of steam-powered drilling was imperative in the rock near Bend. According to the 1890 *Geological Survey of Ohio*, J.O. Johnston is credited with the discovery of the most important gas field in Ohio, up to that time. The Thurston field was "by far the largest and most important yet found established on the new gas rock." It comprised parts of four townships. "The discovery of the field is due, more than to any one person, to Mr. J.O. Johnston, Superintendent of the Central Ohio Natural Gas Company, an operator in the eastern field and also practically acquainted with the new oil field of northern Ohio," said the report.¹⁸⁹

¹⁸¹ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904, Portland, OR.), 10.

¹⁸² *Proceedings of the Ohio Gas Light Association*, (Columbus: Spahr & Glenn, 1904), 661. Proceedings include seventeenth annual meeting of 1901, eighteenth annual meeting of 1902, and nineteenth annual meeting of 1903. Index of association members indicates Johnston, John O., General Manager, The Columbus Gas Light and Heating Company, Columbus, Ohio. Elected to membership March 21, 1900;

¹⁸³ *Ibid.*, 667. Proceedings include seventeenth annual meeting of 1901, eighteenth annual meeting of 1902, and nineteenth annual meeting of 1903. Index of association members indicates Turney, Henry D., Director and Member of Association's Executive Committee, Columbus, Ohio. President, Gas Lighting and Heating Company, 80 Broadway, New York, NY. Elected to membership March 21, 1900; *Natural Gas Journal*, (vol. 5, July 1911), 39. (Google Book). In or about 1911, Henry D. Turney was the president of Columbia Gas & Fuel Company in Columbus, with 29,000 customers.

¹⁸⁴ "The Deschutes Irrigation and Power Company at Bend," (*The Pacific Homestead*, Salem, OR., November 10, 1904), 70; "Local Notes," (*The DesChutes Echo*, February 27, 1904), 3. Named to the board of directors were H.D. Turney, J.O. Johnston, R.F. Guerin (a son of W.E.), Harvey W. Scott, E.E. Lytle, J.F. Watson and C.C. Hutchinson. Officers elected were H.D. Turney, president; J.O. Johnston, vice-president and general manager; and R.F. Guerin, secretary and treasurer.

¹⁸⁵ *Ibid.*; United States Circuit Court of Appeals for the Ninth Circuit..., 1915, 15. The document indicates "Assignment of rights of Oregon Irrigation Co. to The Deschutes Irrigation & Power Co., viz., its capital stock," made C.C. Hutchinson a stockholder.

¹⁸⁶ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 804. Shaver indicates W.E. Guerin, Jr. was a prominent banker and leading businessman of Bend, Crook County, matriculated in Cornell University, from which he graduated with honors. Admitted to the Ohio bar in 1893, he was elected to the state legislator of the seventy-fifth assembly of that state.

¹⁸⁷ "Untitled," (*The Bend Bulletin*, April 29, 1904), 4. Indicates Drake was still the owner of the Townsite; "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10; Pilot Butte Development Company, Plat of Bend, Filed June 7, 1904. The townsite plat was not filed until almost four months after this announcement.

¹⁸⁸ Orton, Edward, State Geologist, *Geological Survey of Ohio*, (Columbus: The Westrote Co., State Printers, 1890), 241-42. For example, in Ohio, while engaged in the work of exploration, Johnston studied the axes of the anticlines and other factors to determine the points to drill natural gas wells.

¹⁸⁹ *Ibid.* A company was soon formed in Columbus in which abundant capital, energy, and business sagacity were joined. The well was drilled deep into the Clinton limestone. As a result, a large nearly contiguous territory was held by his company. In 1889, the

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J.O. Johnston¹⁹⁰

Plans for Settlement and Agricultural Development

At the time of the D. I. & P. Co. transaction, on February 14, 1904, the Portland *Oregonian* summarized the benefits of the project and pronounced the significance of settlement and agricultural development in the Deschutes country:

"It means that 250,000 acres which are now non-productive will eventually be made to sustain a population of several thousand persons, and the building of one or more thriving towns. It means a large addition to Oregon's crop production, and the extension of Portland's commercial territory. More than all it means a practical demonstration of what the investment of capital in irrigation projects can do for a large portion of the state which is now practically worthless by reason of its arid character. It is an opening wedge which will be followed by the construction of many other irrigation systems and the reclamation of much of Oregon's domain. A thoroughly organized immigration bureau will be organized, and a large amount of money will be spent in advertising the lands throughout the United States and Canada."

The company's inducements, including the price per acre, which was much lower than elsewhere, was expected to result in heavy immigration. The company was operating its own stage line to and from Shaniko, 82 miles to the north by way of Prineville on a rough, dirt road, to bring in people who were interested in purchasing land in the segregation.¹⁹¹ Prineville was the Crook County seat and the largest city in Central Oregon. It was platted in 1877. Shaniko was the terminus of the Columbia Southern Railway, which entered Central Oregon from Biggs on the Columbia River in 1900. General Manager J. O. Johnston stated, "Our purpose is to employ immigration agents, if necessary, to find settlers for the land thus reclaimed. We will form colonies when we can and induce individual settlers to come. We will lose no time in putting that arid land into condition to raise alfalfa and other crops."¹⁹²

The D. I. & P. Co. followed the Carey Act process relative to the Pilot Butte Development Company's Segregation List No. 6. In a May 14, 1904 DesChutes Echo article, the company explained that the segregation had placed a lien upon all lands in it, covering the cost of bringing water through its system to each

Columbus city council granted a franchise that brought gas-powered lights and heat, with 45,000 customers, and fuel to numerous large industrial users; Waples, David A., *The Natural Gas Industry in Appalachia: A History of the First Discovery to the Tapping of the Marcellus Shale*, (Jefferson, North Carolina: McFarland & Co., Second Edition, 2012), 110. According to the author: "In 1888, the Thurston gas field was discovered between Lancaster, Fairfield County, and Newark, Licking County. The following year, gas from the Clinton sand wells drilled at Newark was used in the town, and a ten-inch line was laid to the capital at Columbus in Franklin County."

¹⁹⁰ Photo from the *Progressive Men of Northern Ohio*, 1906¹⁹⁰

¹⁹¹ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904), 10. The new company would "offer lands varying from \$5 to \$15 per acre, guaranteeing water rights," and "irrigated lands elsewhere which offer no greater advantages are selling as high as \$300 per acre."

¹⁹² "Water In Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6.

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40-acre tract, amounting to an average lien of \$10 per acre. The State Land Board apportioned the total amount of the lien on each 40-acre tract according to its agricultural value. The cost of bringing water to the land was estimated by both the state engineer and the company engineer. A 40-acre tract with 40 irrigable acres cost the settler/farmer \$590.00, the lien the company held on it, or \$14.75 per acre. A price was placed on each 40-acre tract, depending upon the number of irrigable acres in each. Not all the land was farmable or irrigable. When the amount of the lien was paid, the purchaser secured release of the lien and a perpetual water right. When the purchaser presented the release of the lien to the State Land Board, it issued a deed or patent to the land to the purchaser. The new property owner paid \$1 per year per acre for the perpetual water right. In the example of 40 irrigable acres, this amounted to \$40 per year.¹⁹³ As costs to construct the system increased over time and unexpected challenges arose, the irrigation companies re-negotiated the contract with the state periodically to allow them to sell the land for higher prices.

1904. WORK PROGRESSES ON THE CONSTRUCTION OF THE PILOT BUTTE AND CENTRAL OREGON CANALS

Equipment, Supplies, Workforce and Teams Buildup, 1904

The Central Oregon Project was summarized in 1904. "Expert engineers have pronounced the headgate of this project the finest in the United States," said the *Morning Oregonian* of February 16, 1904. "The diversion works are in a deep canyon among immense rocks, which afford admirable protection to the permanence of the intake, which leads to a heavy rock cut 20' in depth to the head of the flume, where the surplus water will be turned back into the river."¹⁹⁴ "Water was diverted from the river to the east bank of the Deschutes River about three miles above Drake's home.

On April 1, 1904, the D. I. & P. Co. officially took active charge of all irrigation work on the Central Oregon Project.¹⁹⁵ The company needed to assemble resources before the flume could be finished and excavation for the Pilot Butte Canal could begin on a large scale. Key personnel were hired. Joseph G. Kelley, a hydraulic engineer formerly with the U.S. Army Corps of Engineers, became superintendent of the Pilot Butte Canal construction, succeeding Wiest, who became his assistant.¹⁹⁶ Charles M. Redfield joined them. Soon Redfield supervised the building of the Central Oregon Canal and became chief engineer for the D. I. & P. Co.¹⁹⁷ The purchasing agent was to buy more teams of horses and outfits, and to make large purchases of equipment, supplies, and foodstuffs in Prineville.¹⁹⁸ Great amounts of meat and vegetables were required by the construction crews and were provided by suppliers bringing wagon loads of vegetables from Haystack, Oregon, forty miles away.¹⁹⁹ Hay for the horses, food for the men, and water for both were constantly required. A timekeeper and paymaster were employed, and the firm's entire auditing department was brought from Portland.²⁰⁰ Hundreds of laborers and teamsters along with their horses and wagons were hired.²⁰¹ Boarding for crews was arranged until tents and other camp facilities and supplies arrived.²⁰²

¹⁹³ "Feeling In the East," (*The DesChutes Echo*, May 14, 1904), 1.

¹⁹⁴ "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904, Portland, OR.), 10.

¹⁹⁵ "New Company In Charge: Deschutes Irrigation & Power Company Took Formal Control Yesterday," (*The DesChutes Echo*, April 2, 1904), 1. Hutchinson became the selecting agent of lands to be reclaimed for the state relative to the D. I. & P. Co. work.

¹⁹⁶ *Ibid.*

¹⁹⁷ "Local Notes," (*The DesChutes Echo*, February 27, 1904), 3; "Local Notes," (*The DesChutes Echo*, March 5, 1904), 3;

"Local Notes," (*The DesChutes Echo*, May 14, 1904), 3.

¹⁹⁸ "Work on the Canal," (*The Bend Bulletin*, April 15, 1904), 1; "Local Notes," (*The DesChutes Echo*, April 9, 1904), 1.

¹⁹⁹ "Local Notes," (*The DesChutes Echo*, May 6, 1904), 3.

²⁰⁰ "Local Bits," (*The Bend Bulletin*, July 8, 1904), 5; "To Open Empire: Big Irrigation Companies in Combine," (*Morning Oregonian*, February 16, 1904, Portland, OR.), 10.

²⁰¹ "Local Notes," (*The DesChutes Echo*, April 9, 1904), 1.

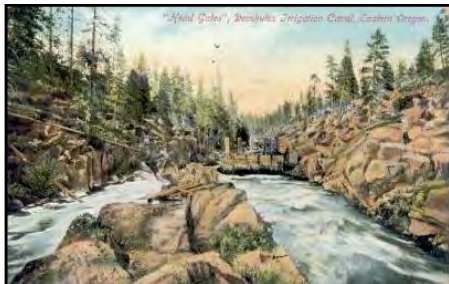
²⁰² "Irrigation Activities," (*The DesChutes Echo*, March 12, 1904), 1.

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**"Head Gates," Deschutes Irrigation & Power Company
Postcard of diversion point on the Deschutes River, ca. 1904²⁰³**

Teams of horses were in demand to pull scrapers and transport rock and construction materials.²⁰⁴ Wiest traveled over the Cascades Mountains to the Willamette Valley to buy horses.²⁰⁵ Others rounded up wild horses on the high desert and broke them for work. At one point in 1904, before the new company was to commence work, seventy-eight wild horses were captured and 'broken' for scraper teams. In half-a-day, a range horse was 'broken' for pulling scrapers and further training came in the regular course of its work. Three men were employed to break horses.²⁰⁶

A vast amount of resources was hauled by horse teams pulling loaded wagons from the railroad terminus at Shaniko. The treacherous trip took at least two days and could take much longer to pull heavy wagons loaded with equipment to the project site. Nielsen, et al., the region's pioneer road historians, describe one leg of the Shaniko-Prineville-Bend route: "Most freight outfits consisted of three wagons pulled by eight-to-twelve horses. At the base of Hunter Grade, the last wagon had to be dropped. After the first two wagons were pulled to the top, the horses had to return to the bottom to pull up the third wagon."²⁰⁷ Loads coming into the project area aggregated nearly 50,000 pounds (25 tons) each.²⁰⁸

There was infrastructure to build including bridges, camps, and structures. The Deschutes Lumber Company increased its production to serve the project's timber and lumber needs²⁰⁹ while Drake rebuilt his PBD Co. lumbermill.²¹⁰ Bridges were built across the canals where the county roads and canals would intersect.²¹¹ The company built an office, a club house, stables, a blacksmith shop, a granary, a warehouse, a powder house, a cook house, a mess hall, a barn, buildings at its experimental farm, and a residence for management.²¹²

²⁰³ 1904 postcard from the Bowman Museum Collection.

²⁰⁴ "Local Notes," (*The DesChutes Echo*, March 26, 1904), 3. When the Russo-Japanese War broke out in February 1904, demand for cavalry horses by the Japanese rendered the horse market very costly, making the Pilot Butte Canal construction more expensive. Seventy-five tons of high-grade hay was purchased for the company stables in March; "Local Notes," (*The DesChutes Echo*, May 14, 1904), 3. In May, as hay prices reached exorbitant prices and was almost unobtainable, construction costs grew.

²⁰⁵ "Wants Valley Horses," (*Oregon Capital Journal*, July 25, 1904), 5.

²⁰⁶ "Breaking Wild Horses," (*The Bend Bulletin*, October 7, 1904), 1; "More Horses for Ditch Work," (*The Bend Bulletin*, September 30, 1904), 1. Horses were purchased when they were available. During spring, one-hundred tons of hay was stacked at the Forest ranch on the Crooked River, but high water made it impossible to cross the river and bring the fodder to the horses.

²⁰⁷ Nielsen, Lawrence E., Doug Newman, and George McCart, *Pioneer Roads in Central Oregon*, (Bend: Maverick Publications, 1985), 99-100. A road up Hunter Grade was necessary because Hay Creek runs through a spectacular, impassable gorge; "Local Notes," (*The DesChutes Echo*, March 5, 1904), 3. Any precipitation, from early fall to late spring, resulted in "veritable seas of mud" that presented additional difficulties on the route; "Local Notes," (*The DesChutes Echo*, May 6, 1904), 3.

²⁰⁸ "To Enlarge Flume," (*The Bend Bulletin*, August 12, 1904), 1. Freighters were bringing in loads from across the state; "Local Notes," (*The DesChutes Echo*, April 9, 1904), 1. J.O. Johnston, vice-president and general manager, purchased the first automobile to make an appearance in Crook County to facilitate his business travel.

²⁰⁹ "Local Notes," (*The DesChutes Echo*, May 28, 1904), 3. The lumber company purchased a new Samson turbine water wheel; "Local Notes," (*The DesChutes Echo*, March 26, 1904), 3.

²¹⁰ "Local Notes," (*The DesChutes Echo*, March 19, 1904), 3; "Local Notes," (*The DesChutes Echo*, April 2, 1904), 3.

²¹¹ "Local Notes," (*The DesChutes Echo*, April 16, 1904), 3; "Work on the Canal," (*The Bend Bulletin*, April 15, 1904), 1.

²¹² "More Than \$100,000," (*The Bend Bulletin*, January 6, 1905), 1.

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Progression of Work, 1904

After the D. I. & P. Co. took over the project, the joint flume to serve both canals near the intake was successfully tested in March 1904, having been upgraded to the satisfaction of the new owners.²¹³ It was not until early April when snow was off the ground and the ground had thawed out that canal construction began.²¹⁴ Fourteen survey crews were sent to the field in advance of the actual canal construction. The survey crews drew exacting 10-foot contours around the route selected earlier for the main canal and along land in Segregation List 6, and set stakes for the route, so construction teams would know where to locate the canals, laterals, and service ditches. The entire system would flow by gravity. The canals needed to be higher in elevation than the laterals, while the laterals needed to be higher than the ditches to the settlers' land.

Construction began in earnest on the Pilot Butte Canal. "The excavation of the canal "down to Wiest's homestead [west of Bend] is nearly completed," a later report said.²¹⁵ However, water did not arrive through the approximately three miles of open canal to Wiest's property until June 3, 1904. The *Bend Bulletin* recognized "this diversion of water from the Pilot Butte Canal is historic because it mark[ed] the first actual use of it on the soil to produce crops."²¹⁶ Thus, the company had achieved the first part of what it promised to the State Land Board in February. It had water running in its flume from the headgates at the river up to the future townsite of Bend, irrigating Wiest's forty acres. But, it did not have water on 25,000 acres, the second promise made in February. That acreage was north between their position in June 1904 and the Crooked River Canyon. The stretch in the Pilot Butte Canal Historic District (Cooley Road-Yeoman Road Segment), at miles 6 to 7.5, was nearly solid rock, with twists and turns, and had to be completed before water could flow past it into the northern half of the canal, where other crews were progressing quickly.

During the summer of 1904, four crews, at four camps, were working at different points on the Pilot Butte Canal.²¹⁷ Work was progressing slower than expected and more laborers were needed. In mid-August a report from Eugene, Oregon, indicated that at the completion of sewer construction contracts, the city would release several men for work on the Pilot Butte Canal. The superintendent went to Eugene to hire laborers.²¹⁸ Nearing the end of September, the company had about 200 men and 100 horse teams at work and was trying to double the force as soon as possible. About 50 Italian laborers were brought in for the upper Pilot Butte Canal and more were expected to come. Twenty Americans were clearing the right-of-way for the Pilot Butte Canal. More than 100 men were at the lower construction camp in the rock. Two surveying and engineering parties were still in the field making topographical examinations and contour maps of the country. The company bought 50 horse teams to put on the canal work. Scrapers and a great quantity of food and general supplies were being received by railroad at Shaniko. The company was pushing the freighters to bring in more.²¹⁹

More Problems on the Headgate and Shared Flume

It became apparent that the *Oregonian* newspaper's February 16, 1904 exuberant praise for the engineering on the headgate had been premature. The headgate and flume system was not able to carry enough water for the two canals it was to serve. Even if all the water was diverted for the Pilot Butte Canal, it would be underserved. The intake and flume must be significantly enlarged. In early October at the headgate a force of rock men was blasting out a new intake, engineers and surveyors were taking levels and guiding workmen, and the flume was being enlarged to carry water in the Central Oregon Canal that would soon be under way.

²¹³ "Irrigation Activities," (*The DesChutes Echo*, March 12, 1904), 1. It is possible that the D. I. & P. Co. decided to make upgrades to the flume they acquired.
New Company in Charge: Deschutes Irrigation & Power Company Took Formal Control Yesterday," (*The DesChutes Echo*, April 2, 1904), 1.

²¹⁵ "Work on the Canal," (*The Bend Bulletin*, April 15, 1904), 1.

²¹⁶ "First Water on Soil," (*The Bend Bulletin*, June 3, 1904), 1. Chief engineer J.G. Kelly resigned the same week.

²¹⁷ "Local Notes," (*The DesChutes Echo*, March 5, 1904), 3.

²¹⁸ "To Enlarge Flume," (*The Bend Bulletin*, August 12, 1904), 1.

²¹⁹ "Pushing the Work," (*The Bend Bulletin*, September 23, 1904), 1. C.M. Redfield was the new chief engineer; "C.M. Redfield Dies Suddenly," (*The Bend Bulletin*), March 19, 1924), 1. Article indicates Redfield had come to work for the company in April 1904, apparently taking over the chief engineer position in early June 1904, when J.G. Kelly resigned.

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In all, about 350 men and 100 horse teams were employed by the company at various places along the canal.²²⁰ Near the end of October the headgates were closed, bringing to a standstill water service to the future Bend townsite, and the work of enlarging the channel through this stretch was expected to take two weeks. The capacity of the 6,680' flume near the headgate was more than tripled. It was carrying only 80 cubic feet per second (cfs) for the Pilot Butte Canal.²²¹ It originally was 5'3" wide and 3'9" deep. (Today the Pilot Butte Canal carries 400 cfs.) Therefore, the flume was enlarged to 16' wide by 5' tall. Ten feet were added to the flume's width and a foot to its depth, increasing its carrying capacity to 650 cubic feet per second, enough to irrigate 85,000 acres, it was thought at the time.

A part of the miscalculation in sizing the flume and canals was due to the 'surprising tenacity of the soil.' The additional excavation that was expected to be done naturally by the water when it was sent through the channel failed. It was anticipated during construction that after the laborers and horse teams shaped the canal bed, the water would be let into the canals and it would cut the channel deeper, but that did not turn out to be the case. The water flowed over the dry soil and did not move it. "The land holds up against it and must be dug away with scrapers, demolishing pretty effectively the old bugbear that the Deschutes soil is so light and loose that it will not even give direction to streams of water."²²² The unexpected excessive loss of water through rocks, caverns and fissures in the canal beds, the roughness of the rocky canal bed in the stretches near Bend and the inconsistent shapes, width and depth of the canals, also contributed to the problems in accurately sizing the structures.



1923 photo of men standing in the enlarged Central Oregon canal flume.²²³

John Dubuis, in the "Report to the Desert Land Board on Central Oregon Project" wrote, "Canals have been built wider and more shallow than proper, to avoid rock excavation. Where natural depressions were used, the water has been allowed to spread over large areas. Since the loss of water is to a certain degree directly proportional to the wetted area, some of the excess loss is the natural result of this excess area."²²⁴ He was saying that the canals were built to be much wider and shallower than they were designed to be, and that the larger surface in the beds resulted in more seepage.

During two weeks in October, 160 men on the Pilot Butte Canal were moved south from the end of the canal to two camps at the southern rocky half to enlarge the canal so it could convey 250 cubic feet per second for the spring 1905 irrigation season. Construction of the Central Oregon Canal had just begun 'with a heavy force of men'²²⁵ at the end of the intake flume. The Central Oregon Canal was to convey 400 cubic feet per second from the enlarged flume as it headed east toward Powell Butte. (It conveys 530 cfs today.)

²²⁰ "On the New Flume," (*The Bend Bulletin*, October 7, 1904), 1.

²²¹ "Digs Ditch Bigger," (*The Bend Bulletin*, October 21, 1904), 1. The canal was enlarged to carry 250 cubic feet per second rather than 80 cfs. New calculations had concluded more water was needed than the PBD Co. had initially determined.

²²² *The Bend Bulletin*, October 21, 1904, 1, "Digs Ditch Bigger."

²²³ 1923 photo from the Deschutes County Historical Society Collection.

²²⁴ Dubuis, John, Report to Desert Land Board on Central Oregon Project, 1914, 5.

²²⁵ *ibid*

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The Bend area was the most difficult terrain of the entire irrigation system. Rock outcroppings and nearly solid rock below the thin layer of soil and unexpected lava tubes were encountered in the first third of the Pilot Butte Canal and the first ten miles of the Central Oregon Canal, where the canals needed to convey the full amount of water and be wide and deep. Those conditions and the rolling terrain caused a challenge for both water volume calculations and construction. The company discovered that it would be more time consuming than anticipated to construct the canals through the rock and would require blasting as well as digging and scraping.

At this time, late in 1904, winter approached at 3,600' above sea level at the foot of the Cascades. The company feared that snow, ice, and freezing temperatures could quickly halt all construction on both canals until spring. The February 1904 promises of the D. I. & P. Co. to have water on thousands of acres of desert land would soon be a year old. Being behind in its schedule, and the smaller half of the Pilot Butte Canal farther north completed, the company quickly had to meet the challenge posed by the geological conditions presented in the rocky stretch in the Pilot Butte Canal Historic District (Cooley Road-Yeoman Road Segment) and prove to investors, the State Land Board, and to potential settlers that they were committed to completing the canal in time for spring farming in the Deschutes country. J.O. Johnson knew he would meet ten miles of the same rock near Bend on the Central Oregon Canal. A new approach to the rock was necessary.

Construction Utilizes Technology, Man-and Horse-Power, 1904-05

Fortunately, the D. I. & P. Co. was able to take advantage of a propitious period in the history of irrigation and land development technology. A revolution in horse-drawn earth moving came in 1883. John Porteus, a



Men using horse-drawn Fresno scrapers²²⁶

Fresno Township, blacksmith, invented the Fresno scraper. "The device was a metal scoop with unique steel runners, pulled by two to four draft animals. Like the skip scraper, the teamster controlled the depth of cut from behind. However, the Fresno could be skidded along for reasonable distances and dumped on a controlled basis. Porteus' invention was an impressive improvement over the skip."²²⁷ By using these scrapers with the ability to haul material over a short distance and to control the dump, the company was able to not only excavate loose canal material, but was also able to build canal embankments where they wanted them, and to the specifications they needed them to be by systematic dumping.

²²⁶ 1904 photograph courtesy of the Deschutes County Historical Society.

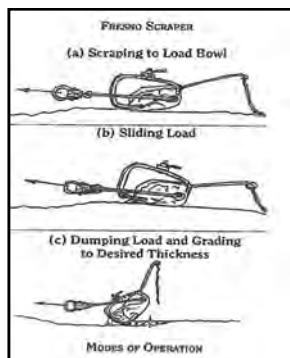
²²⁷ Ibid. 'Slip' and 'skip' are interchangeable terms, referring to the same type of equipment.

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Fresno Scraper Modes of Operation²²⁸

John H. Lienhard, PhD, Professor Emeritus of Mechanical Engineering and History at the University of Houston explains the operation of the Fresno, a designated Historic Mechanical Engineering Landmark:

*"Porteus' C-shaped scraper had a blade along the bottom. It scooped as it was pulled along. [Different from all predecessors], this machine rode on runners and could be tilted. An operator walking behind it could change the angle. When it was full, he tilted it back and let it slide on the runners. He could dump as he passed over low spots and smooth out terrain. He could vary the angle of attack to match the [cut required]."*²²⁹

Mechanical engineers Davis and Wilson wrote that the Fresno scraper can be used for hauls of any distance, but it is not very advantageous for long hauls. It is also suitable for making ditches, dikes, and any other scraper work where the haul is not great enough to require wheels.²³⁰

However, the most significant utilization of technology, steam-powered drilling, was used in the excavation of the most difficult basalt rock, beginning in November 1904. General Manager J.O. Johnston understood the difficulty deep lava flows would present to construction and had commented on it in February 1904: "That lava bed is very rough, requiring expensive work in cutting out rock."²³¹ Typically, steel miners' drills were pounded with sledge hammers to drill holes for blasting charges. After a blast was detonated, teams of men and horses with Fresno scrapers, along with men and shovels, excavated shattered rock to bring the canal to grade.²³² Being familiar with building railroads and drilling for gas, the D. I. & P. Co. invested in the best equipment for the job to be done to make the work more efficient and timelier. J.O. Johnston stated, "We have paid cash and a lot of it, for everything as we went along, and we expect to continue this course in the future until every detail of the reclamation work is completed."²³³

²²⁸ Boulder Community Network, Boulder County, Colorado, *The Ditch Project: 150 Years of Ditches—Boulder's Constructed Landscape*, (Accessed March 27, 2015). Image, Courtesy of American Society of Mechanical Engineers; Davis, Arthur Powell, D.Sc., and Herbert M. Wilson, C.E., *Irrigation Engineering*, (New York: John Wiley & Sons, Seventh Edition, 1919), 109.

²²⁹ University of Houston, "No. 353: The Fresno Scraper," *Engines of Our Ingenuity*, (Accessed March 27, 2015); University of Houston, "Dr. John L. Lienhard," *Engines of Our Ingenuity*, (Accessed March 27, 2015). Lienhard received BS and MS degrees from Oregon State and the University of Washington, his PhD from the University of California at Berkeley, and holds two honorary doctorates; San Joaquin County Historical Society and Museum, "Designating the Fresno Scraper as an Engineering Landmark," (Accessed March 27, 2015). On March 26, 2011, in a ceremony at the Museum the American Society of Mechanical Engineers (ASME) designated the Fresno Scraper as a Historic Mechanical Engineering Landmark. The society noted the Fresno was used throughout the world, including in the construction of the Panama Canal, and was the forerunner of virtually all earthmoving implements.

²³⁰ American Society of Mechanical Engineers; Davis, Arthur Powell, D.Sc., and Herbert M. Wilson, C.E., *Irrigation Engineering*, (New York: John Wiley & Sons, Seventh Edition, 1919), 109.

²³¹ "Water In Sixty Days: Deschutes Irrigation Company Buys Out Others," (*The Sunday Oregonian*, February 14, 1904), 6.

²³² Coe, Urling C., *Frontier Doctor*, 13-14. Coe describes injuries from rock and dynamite and medical attention he provided.

²³³ "Cheap Land Gives Start to Redmond," (*The Redmond Spokesman*, August 21, 1952), 2. Article suggests there were some

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By the turn of the twentieth century, steam power propelled eighty percent of the factories in the nation. It was portable and allowed regulation of the power that was generated.²³⁴ The D. I. & P. Co. purchased two portable steam boilers, "specially made for the work of this company in the Bend section "and shipped from Columbus, Ohio" to provide power for operating rock drills. One boiler was twenty horsepower and drove four drills. The other was six horsepower and drove one. Together, they could bore 400' per day in the hard, demanding strata of lava, where typically it would take three men to bore 18' to 20' per day. The drills were 'worked by steam direct from the boiler, the steam serving the same purpose as compressed air in another kind of drilling contrivance' noted the report. ²³⁵ "Monster Drills at Work," headlined the *East Oregonian*. "Power will be generated for driving four drills into lava rock. The two boilers with their big steel drills will do more work in a day than 300 men."²³⁶

Before these machines were brought into operation, General Manager J.O. Johnston calculated that a "force of 388 rock men would be required to do the necessary work." The impossibility of getting such a force led Johnston to devise this method of drilling powder holes in the rock. Hand drilling was used where there was little drilling to be done, but the big ledges were 'bored by the steam-powered drills.' The report indicated the shipment filled an entire railroad car and was hauled by freighters from Shaniko in multiple wagon loads to the work site, taking several days to get all the equipment delivered.²³⁷

The procedure to form the two canals was more than just blasting, scraping, and dumping repetitively. Canal banks were carefully built in successive layers of compacted rock and soil and kept as level as practicable. The travel over the canal banks during construction was performed in a manner to distribute the compacting effect of the horses and scrapers to the best advantage possible.²³⁸ In the fall of 1904, 400-500 men and 215 horse teams were working on the two canals.²³⁹ It is estimated that 215 teams moved 214,500 loads with almost 1,000 loads per team over approximately 25 straight days of work. This would have amounted to 40 loads per day per team/scrapper, or five per hour over an eight-hour day.²⁴⁰ Hundreds of men used shovels and laid riprap by hand.

Completion of the Pilot Butte Canal

It was pivotal to have the steam-powered drills to excavate lava flows. Otherwise, the timely completion of the entire Pilot Butte Canal would have been jeopardized. The D. I. & P. Co., nor any other company, could have assembled and fed a force of 388 rock men estimated to be needed to do the necessary work by hand. Additionally, it was crucial to amass a very substantial workforce and several hundred horse teams. The PBC Historic District (Cooley Road-Yeoman Road Segment) was the 'make or break' part of the project on which

'slips,' another type of excavation equipment. Indications are this was not the case in the nominated section; Davis, Arthur Powell, D.Sc., and Herbert M. Wilson, C.E., *Irrigation Engineering*, 233. The authors indicate the Fresno scraper is the most satisfactory in handling tough earth too heavy to be handled by other types of scrapers; "D. I. & P. Co. Is Here to Stay," (*Crook County Journal*, April 9, 1905), 1.

²³⁴ Preston, Daniel, "The Industrial Age: Steam Technology," (*20th Century United States History*, New York: Harper Perennial, 1992), 6.

²³⁵ "To Drill by Steam," (*The Bend Bulletin*, November 18, 1904), 1.

²³⁶ "Monster Drills at Work," (*East Oregonian*, November 28, 1904), 8. Originally in undated *Crook County Journal*.

²³⁷ "To Drill by Steam," (*The Bend Bulletin*, November 18, 1904), 1.

²³⁸ Davis, Arthur Powell, D.Sc. and Herbert M. Wilson, C.E., *Irrigation Engineering*, 557. Specifications for constructing embankments in this Civil Engineer's book indicates layers were generally not to exceed 12" in thickness.

²³⁹ "Pay Back to Old Figures: Men Don't Like It and Many of Them Quit," (*The Bend Bulletin*, March 17, 1905), 1. Figures are based on numbers from the article indicating that as the result of the reduction in pay about 200 men and 125 teams left the canal work in the first week of March, leaving about 200 men and 90 teams on the work.

²⁴⁰ Steam drills arrived just after the first week of November. Assuming all team/scrapper work began by Friday, November 11, 1904, and concluded on or about December 5, 1904, provides twenty-five days. 214,500 loads / 215 teams/scrapers = 997.67 loads per team. 997.67 loads per team / 25 days = 39.9 loads per day, per team/scrapper. Or, 40 loads per day over an 8-hr. day = 5 loads per hour for each team/scrapper; Oregon State Archives, Desert Land Board Reclamation Records, Deschutes Irrigation & Power Co., no. 37-43, box 15, folder 10. Letter, J.O. Johnston, vice president and general manager, Deschutes Irrigation & Power Company, Columbus, Ohio, December 5, 1904, to G.G. Brown, Clerk, State Land Board, Salem, Oregon. General Manger Johnston indicates 400-500 men had been at work; Timedate.com. Including December 5 as the end date provides 25 days.

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the future of the D. I. & P. Co., the cities of Bend and Redmond, and the agricultural potential of the Deschutes Country rested. Failure in the project management and excavation of this key piece would have effectively terminated all the broader, more extensive plans for the settlement and agricultural development of the Deschutes Country. The D. I. & P. Co. did have an extraordinary amount of capital, exceptional expertise in the utilization of technology, and enormous man- and horse-power to find a successful methodology for dealing with the rock plus meeting schedules and deadlines set by the State.

On February 10, 1905, the challenges had been met, work was finally done, and water could flow in the Pilot Butte Canal to its terminus just south of the Crooked River for the 1905 irrigation season. The water was let into the Pilot Butte Canal on March 5, 1905.²⁴¹ At the end of March *The Bend Bulletin* reported the company's investment in the previous twelve months as \$500,000,²⁴² equivalent to over \$12 million in 2017 dollars.²⁴³ The construction of laterals branching off the Pilot Butte Canal, bringing water to farmers, began in April 1905.²⁴⁴

1904 -1914, CENTRAL OREGON CANAL DESIGN AND CONSTRUCTION, FLUME COLLAPSE

Progression of Work on the Central Oregon Canal

On September 4, 1904, a Bend Bulletin article said, "Work is being pushed rapidly on the right-of-way of the new canal south of town, five miles of which has already been cleared." The October 7, 1904 *The Bend Bulletin* reported that 350 men and 100 horse teams are living in tented camps and are employed by the construction work of the D. I. & P. Co., finishing the middle rocky portion of the Pilot Butte Canal, enlarging the southern end of the Pilot Butte Canal, enlarging the wooden intake flume, blasting rock in the intake, and constructing the Central Oregon Canal. The article says, "...the Central Oregon Canal will be fed 400 cubic feet a second from the enlarged flume. The first plan was to feed the Central Oregon Canal from a flume to be taken out at Lava Island, five miles above the Pilot Butte intake. But, the plan was recently modified to ma[k]e the one enlarged flume supplied the two canals. The Central Oregon Canal now starts at the foot of the flume and keeps to the higher ground. For a mile or so, it stays beside the Pilot Butte canal, but when it gets out past the rim rock, it bears to the east and will extend out to Powell Buttes." The October 21, 1904 *The Bend Bulletin* said, "Work on the Central Oregon Canal is pushed with a heavy force of men near the foot of the flume. That work will not in any way be slackened for the enlargement of the Pilot Butte Canal." In November 1904, crews and horse teams were moved from the Pilot Butte Canal project to start clearing the first ten miles of the route for the Central Oregon Canal, below the wooden intake flume, while the fall weather lasted.

On January 13, 1905, the front-page article in *The Bend Bulletin* exclaimed that the Central Oregon Canal will run in the old Dry River bed. It said, "The well-marked old river channel reaching across Central Oregon half way between Bend and Prineville will again carry a volume of sparkling water next summer. For the first time since man has known this country, the 'old river bed' will be a veritable river, big enough for steamboats." The writer went on to say that the canal will be completed for 30 miles to the river bed by May. "Trout will take the place of sand lizards," the writer exclaimed.

On Feb. 3, 1905, *The Bend Bulletin* reported that the ground is torn up for six miles from the flume for the Central Oregon Canal. Work was continuing the flume. The crews and equipment were stationed along the first 10 miles of the Central Oregon Canal route and it was being constructed. Crews were aided by having the specialized rock drilling equipment ordered by J.O. Johnson to speed the process of blasting rock and steam

²⁴¹ "Hundreds at Work," (*The Bend Bulletin*, March 10, 1905), 1. Article indicates water turned into canal on March 5, 1905.

²⁴² "Still Bend Is Growing," (*The Bend Bulletin*, March 31, 1905), 4.

²⁴³ Federal Reserve Bank of Minneapolis, "CPI Calculator Information," (Accessed March 30, 2015). Using the Consumer Price Index (CPI) for 2015 (239.7) and the CPI for 1913 (9.9; 1913 being the earliest available) the calculation is (239.7/9.9) x \$500,000 = \$12,106,060.61 in today's dollars.

²⁴⁴ "Now Building Laterals," (*The Bend Bulletin*, April 14, 1905), 1. The article noted: "Now comes the system of laterals distributing the water for the use of the farmers."

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shovels to scoop up broken rock and load it in wagons. On February 10, 1905, the company moved men and horse teams from the Pilot Butte Canal to work on the Central Oregon Canal.²⁴⁵

On February 17, 1905, the headline exclaimed that the work on the Pilot Butte Canal was finished to the Crooked River. "This will add about 125 men and 40 horse teams to the Central Oregon Canal work, which is at mile 10." (This point is at the eastern end of the nominated historic district.) "The transferred camp will take up work on the Central Oregon Canal at a point about 10 miles east of Bend, as soon as the retiring frosts will permit canal excavation. That will put a force of about 300 men and 200 teams, to say nothing of machine drills, road machines, and patent excavators, on the one big canal and it will carry water to the old river bed early in the spring."

On March 10, 1905, the crews included 400 men and 250 horse teams. Two more miles were being excavated and the rock work was going well with the energy of the crew and the specialized equipment. But, there were more setbacks. A huge sink hole opened on the canal near the intake flume at the river and was challenging to plug.

The next week the newspaper extolled all the new settlers between Bend and Powell Butte, who were arriving due to the Pilot Butte Canal's completion, the Central Oregon Canal's construction, and the company's advertising campaign.

In early April, 500 feet of the newly enlarged wooden flume at the diversion point at the river collapsed. Lumber was in short supply. Because the water had to be shut off to the two canals again, the construction camps had to be temporarily moved into town, so the men and horses could have water to drink and use for domestic purposes. Within a month, the flume was repaired. Water flowed for the irrigation season through the Pilot Butte Canal and out 10 miles on the Central Oregon Canal, so the crews could resume work there. The crews were reduced when many workmen quit and went to the Columbia Southern ditch work that was offering higher wages.

The Bend Bulletin on July 14, 1905 said, "Several leaks have developed along the Central Oregon work, where rock was shattered by blasting, opening crevices to subterranean chambers. These are generally stopped by paddling and tamping." It was expected that the repaired and enlarged flume could carry 1,000 cubic feet per second of water instead of the 650 cubic feet per second that was estimated. In August 1905, the D. I. & P. Co. raised wages again to \$2.25. Due to the work force being reduced, crews were still 12 miles east of Bend.

On March 9, 1906, the D. I. & P. Co. announced that F. C. Rowley, who has been superintendent of the company's work in the field, since it commenced operations, had resigned. Chief Engineer, C. M. Redfield, took on the additional duties as general manager to succeed J. O. Johnson who was in ill health. J. C. Lewis would become superintendent of construction. F. S. Stanley of Portland was the company's secretary and treasurer.

On December 21, 1906, the company described the vicinity of the nominated historic district on the front page of *The Bend Bulletin*. It said, "A drive east of Bend a few miles on the Bear Creek Road will emphasize very clearly the fact that the Bend country is gradually developing and that the sagebrush and juniper must give way to fields of grain and fruitful orchards. Many new settlers are moving onto land purchased by them, houses, barns, and fences are being built, and the land is being cleared and plowed."

J. O. Johnson died in Columbus, Ohio the week of April 26, 1907. It was reported, "Mr. Johnson had unlimited faith in the future of the upper Deschutes valley. He himself had invested in and developed a large ranch of

²⁴⁵ "To Crooked River," (*The Bend Bulletin*, February 3, 1905), 1. Indicates Central Oregon Canal just started at this time, with the breaking up of ground; "Canal Is Finished," (*The Bend Bulletin*, February 17, 1905), 1. This article indicates work completed to the Crooked River on February 10; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, February 4, 1931), n.p. Brogan states February 9 as the completion date.

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1,280 acres 18 miles east of Bend, and during his last visit to this place he told a *Bulletin* representative that this valley would someday be a marvelous producer of farm products, fruit, etc., and that it would occupy the same position to Portland as the fertile Mohawk Valley does to New York City." The canal was completed as far as Alfalfa when he passed away.



Steam shovel loads rock into a horse-drawn wagon.²⁴⁶

In May 1907, the settlers were complaining that the main canal near Powell Butte was not under construction yet. The company was complaining about the cost to construct the project. Thousands of acres around Dodds Road, the Dry River, Alfalfa and Powell Butte were not salable. The State Land Board agreed to raise the selling price of the D.I. & P. Co. land from an average of \$10 per acre to an average of \$25 per acre, with a maximum price of \$40 per acre. Formerly, sales were from \$1.50 to \$25 per acre. The company also agreed to turn the company over to the settlers in 10 years.

The materials for the 60-inch diameter inverted stave pipe to cross the Dry River between the growing communities of Alfalfa and Powell Butte were ordered in June 1907. In October, the 85 tons of materials arrived by freighters and work to assemble the trestle and pipe commenced. In January 1908, assembling the stave pipe on trestles was completed and water ran through it for the first time, connecting the completed section of canal on each side. In 1907, the rocky portion of the canal in the nominated historic district was enlarged the first time to allow a greater flow to reach farms in Powell Butte.

In April of 1908, Roscoe Howard of Tacoma, Washington, took over management of the D.I. & P. Co. from F. S. Stanley of Portland. Howard was quoted in an April 10, 1908 article in *The Bend Bulletin*, "I consider the matter of first importance is to complete the canal and laterals now under construction in the Powell Butte neighborhood to supply the settlers in that vicinity with water. That work will be pushed with all due dispatch". By mid-June, the canal was delivering water for 28 miles, including to some settlers in Powell Butte. In December, the company was saying that, if the weather would hold up, the canal could deliver water to the settlers for the entire 45 miles in the next year.

In January 1909, the company was irrigating 84,000 acres with both canals. On February 3, 1909, a letter from a settler in Powell Butte was printed in the Bend Bulletin newspaper that slush ice filled the Central Oregon Canal so full that the water ran over the frozen banks and flooded the old river bed, washed out some of the furrow laterals, and washed mud into some of the cisterns. By the 1909 irrigation season, most of the settlers had water and the 45 miles of the Central Oregon Canal were constructed. Other improvements and laterals and ditches continued to be built through the next five years.

The D. I. & P. Co. was reorganized as the Central Oregon Irrigation Company in 1910.²⁴⁷ In November of that year *The Bend Bulletin* reported that "Oregon's greatest irrigation enterprise [is] actively and firmly on its feet again."²⁴⁸

²⁴⁶ Undated, ca. 1904, photo courtesy of Bowman Museum in Prineville OR.

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COID employee fills an underground cavern in the Central Oregon Canal near Dodds Road, two miles east of the historic district.²⁴⁹

The Canal is Completed

In 1912, the North Dam was completed by the company. From a new diversion point and headgate at the new dam, a new 1.4 mile long "U" shaped channel, called the North Canal, was constructed in flat terrain to connect the river to the existing Pilot Butte Canal at approximately milepost 8 of the Pilot Butte system.²⁵⁰ The new dam, the new diversion point and the new North Canal were built at the prompting of the city council who wanted more flow in the river within the city limits and to correct deficiencies of water volumes in the intake flume south of Bend and in both the Pilot Butte and Central Oregon Canals.

In 1914, after the North Canal Dam and the North Canal were completed and more water was diverted from the Deschutes River at separate diversion points for each canal, deficiencies in capacity on the main Central Oregon Canal were again identified by the engineers inspecting the project for the Desert Land Board. The Central Oregon Irrigation Company, which took over from the D. I. & P. Co. in 1910, continued to use Chief Engineer C. M. Redfield. Redfield calculated that moving the intake for the Pilot Butte Canal north to the new dam and having the original intake and flume only serve the Central Oregon Canal would solve the inadequate volume on the Central Oregon Canal. Settlers at Powell Butte were complaining loudly to the County Court and to the state Desert Land Board that, even after the North Dam and the North Canal were diverting and

²⁴⁷ McGuffie, J. G., Secretary, Central Oregon Irrigation, Letter to Fred F. Henshaw, Federal Power Commission Board of Engineers, April 23, 1921. McGuffie wrote that during the 1907-1910 period, the D. I. & P. Co. "proceeded actively in the reclamation of lands embraced in Segregation List No. 6, but the bond holders became restive and litigation arose which resulted in the foreclosure by the bond holders [into receivership] and a reorganization of the affairs of the company, and a transfer of all contract rights of the [D. I. & P. Co.] to the Central Oregon Irrigation Company, a corporation, which ... continued in the construction and management of the system from November, 1910"; "D. I. & P. Co. To Reorganize: Change in Irrigation Co. Effected This Week," (*The Redmond Spokesman*, November 9, 1910), 1. The Central Oregon Irrigation Company filed its articles of incorporation, October 16, 1910, with a capital stock of \$1.5 million. The directorate was Frederick F. Stanley, A.F. Biles, Jesse Stearns, and others representing New York and Columbus interests.

²⁴⁸ "Troubles Over," (*The Bend Bulletin*, November 2, 1910), 1. Other interests included I.N. Farnum of New York, representing J.G. White & Co.; and L.G. Addison, of Columbus, representing the Ohio bondholders. Roscoe Howard was manager and C.W. Redfield chief engineer. For the new firm, Stanley was president, Biles was vice-president, and Stearns was secretary-treasurer.

²⁴⁹ Undated Deschutes County Historical Society photo.

²⁵⁰ Federal Power Commission, *Report to the Federal Power Commission on Uses of the Deschutes River, Oregon*, (Washington, D.C.: Printing Office, 1922), 75. The water for the Pilot Butte Canal system thus remained in the Deschutes River rather than being diverted where it had been since 1904-05, and passed down the river where it was then diverted through the North Canal and into the Pilot Butte Canal, *above the nominated section*. The Pilot Butte Canal system continued to irrigate the same historic lands north of the nominated section; Hadlow, Robert W., Cultural Resources Specialist, *Findings of Effect on Bend's Historic Irrigation Canals, Bend Parkway, The Dalles-California Highway, U.S. 97, Deschutes County*, (Salem: Oregon Department of Transportation, Environmental Section, June 1992), 4. The North Canal became generally known as the North/Pilot Butte Canal. The portion of the Pilot Butte Canal which had come through the Townsite was terminated about 1.5 miles north of the Bend Townsite.

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conveying more water to the Pilot Butte Canal, the Central Oregon Canal was not delivering the contracted amount of water to some settlers and, therefore, crops were not growing adequately.



The 1912 North Dam on the Deschutes River, photographer looking east.²⁵¹

Redfield measured seepage losses at nearly 40% on the total length of the Central Oregon Canal, instead of the 30% anticipated by Wiest in 1904. Canal enlargement work was again undertaken in 1913 and 1914. The portion of the canal in the nominated historic district was enlarged a second time to allow a greater flow in laterals to reach farms at the end of the canal. In addition to enlarging some portions of the canal, Oregon State irrigation system inspector John Dubuis wrote in 1915 that there was a greater loss of water to seepage than expected. He reported that the numerous drops on the canal have not been properly constructed and the water can tumble down over the rock as best it can between the canal grade lines. Dubuis wrote that the canal does not have the planned 1.5' clearance and is anything but smooth and consistent. As described in Section 7, the engineers found that the value of "n" (roughness of the canal bed) in the Central Oregon Canal in the nominated historic district at milepost 7 was 0.036 and at milepost 8 was 0.038, with a note, "Channel rough: rock bottom." Smoother sections to the east had values around 0.025.²⁵² All of these problems are evident in the historic district. In 1915, the Central Oregon Canal irrigated 25,573 acres, not counting high lands, waste or rocky lands, and the rights-of-way for the canal itself. In 1914, the Central Oregon Canal was diverting 440 cubic feet per second (cfs) at the river. Today it diverts 530 cubic feet per second. A cubic foot per second equals 448.83 gallons per minute, so the flow is now 237,880 gallons per minute.

DESIGN AND CONSTRUCTION TECHNIQUES USED ON THE CENTRAL OREGON CANAL

Like other engineers who preceded them in the high desert, Levi D. Wiest, Joseph G. Kelley, and Charles M. Redfield designed an open canal system with a consistent trapezoidal shape and gently angled side slopes to provide carrying capacity to adequately irrigate the land to be sold or homesteaded. They calculated the canal sizes necessary to convey enough water to distribute to the settlers, accounting for expected losses from seepage into the soil, evaporation, and "carry water" needs to irrigate the 84,707 acres in Segregation List # 6.²⁵³ The canal was designed for 'safe capacity,' which is the maximum amount of water that the canal can carry without causing the velocity of flow to become so great as to cause serious erosion of the bottom and sides.²⁵⁴ Safe capacity also leaves sufficient clearance between the top of the water surface and the top of the banks to prevent ill effects of wave action, rise and fall of the water surface due to the regulation of the headgates and the wearing down of the banks by weathering and trampling of cattle. The design gave a 1.5 to 2-foot clearance between the top of the moving water and the top of the banks. As mentioned previously, another factor in their designs was the expected average roughness of the canal. The greater the roughness, the greater friction it causes, and the velocity reduces. The canals near the headgate were the largest

²⁵¹ Photo by Patricia Kliewer, March 2015.

²⁵² *Ibid.*, 19.

The Deschutes Irrigation and Power Company, Cross Sections of Pilot Butte Canals and Laterals, Levi Wiest, Oregon State Archives.

²⁵⁴ Dubuis, John, Report to Desert Land Board on Central Oregon Project, 1915, State Printing Department, 1915

Commented [HC48]: Not being nominated under criteria B, so can't this just be summarized?

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because the canals carried the full amount of water diverted there. The designs showed a consistent shape with flat beds 4' deep by 40' wide for the Pilot Butte Canal and 4' deep by 50' wide for the Central Oregon Canal, to prevent extensive digging while providing capacity. Seepage losses were expected to be 30%, but they were measured at near 40% by John Dubuis in 1914. Evaporation losses were measured at less than 1%.²⁵⁵

Design and Size of the Central Oregon Canal and 'A' and 'B' Laterals

Except for the wooden flume at the intake, concrete or wooden flumes bridging low spots and caverns, concrete and wooden bridges over roads, and the wooden pipe at the Powell Butte Siphon, only native materials found in place were used in canal construction. In the nominated historic district, Charles M. Redfield oversaw survey crews and located the Central Oregon Canal and headgates for two laterals, while ditches were located later as settlers arrived, but were mainly in place by 1912.

Laterals are assigned consecutive letter names, with the lateral closest to the river source being 'A'. The 'A' Lateral diverted enough water to irrigate 5,292 acres in Bend and to the north and east side of Bend to Butler Market Road. At the beginning of the nominated historic district, in 1914, at Ward Road, the canal volume was 365 cfs. In the nominated historic district, the headgate to Lateral 'B' is on the north side of the canal and it irrigates 1,319 acres. The 'B' Lateral slightly reduced the volume in the main canal to 356 cfs. The headgate for the 'C' Lateral is also on the north side of the canal in the nominated historic district and it irrigated 2,498 acres to the north. The flow at the end of the district at Gosney Road was 286 cfs. As water is delivered to its users through laterals and ditches, it carries less water and becomes successively smaller. An average of 4' deep and about 50' wide canal at full capacity would carry the necessary amount of water in the district. But, to have a minimum of excavation while providing capacity, the canal shows great variability in width, depth, and shape. (See Figure 21 for canal measurements in the nominated historic district.)

Building Techniques in the Canal in the Historic District

After the canal route was surveyed and contours of the land were drawn, the selected route was marked. Clear and grub crews cleared the route of juniper, pine trees, and shrubs like sagebrush and bitterbrush with hand saws. Horse teams pulled out stumps by dragging stout chains draped around the shrubs' bases, pulling them out, roots and all. Next, the volcanic topsoil and loose rocks were moved with hand shovels and horse-pulled Fresno scrapers to create the bed and form the embankments.²⁵⁶ Where the rocks and volcanic rock flows were only inches below the surface rock was blasted into movable sizes. The rock was drilled with 2.25" diameter drills. Blasting powder was poured into the holes and exploded to break rock into smaller pieces that could be removed. The solid rock layer was up to 100' deep, so when the top layer was removed, solid rock below that layer remained in the bed.

Soil and rocks that were dug and blasted out of the canal bed, called 'spoils,' were used to build embankments or placed irregularly as riprap on the insides of the banks and in the canal bed to fill in fissures. (See attached photos 1/20 to 20/20 in the appendix.) To build embankments, as each half foot of rock and soil was piled in successive layers on the downhill edge of the canal bed, the materials were flattened in layers, called 'lifts.' This layering and flattening process continued with progressively narrowing layers until the desired embankments were tall and dense enough to hold the water in the canal. Jagged 12" to 36" rock riprap haphazardly lined the steeper and taller embankments and the deeply cut sides so that the desired slopes will hold up to the erosive action of the water. The resulting embankments served two purposes: to hold the water in the canal and to dispose of the soil and rock that had to be removed from the canal bed.

Because the level compaction of lifts made a secure, flat-topped structure, a horseback rider known as the ditch rider and employed by the irrigation company, inspected the canal and checked on appropriate water withdrawals while riding on the embankments. In the nominated historic district, a somewhat consistent 12'-

²⁵⁵ Oregon State Engineer, United States Department of the Interior, Bureau of Reclamation, "Deschutes Project", December 1914, UC Berkley Library, 110.

²⁵⁶ Interview with Kenneth Lowe, son of homesteaders, 20220 Sturgeon Road, Bend, February 2014.

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wide ditch rider road is along the north side of the canal, next to cut sides and on top of embankments. Embankments are not along the entire canal in the historic district, nor are they on both sides of the canal. In two locations, including just east of Ward Road and just east of the Bear Creek Ranch Bridge, the route selected for the canal was not on a diagonal slope. In those places, there is no embankment on either side and the canal was cut into the existing terrain and the spoils removed to use in berm building elsewhere. Being on the side of a hill, most of the canal in the historic district follows a diagonal northerly slope, where the canal was cut into the land on the high side and an embankment was created on the low side to even out the sides. However, between Teal Road and Gosney Road, the terrain drops off suddenly, and unusually high berms (12' tall and 20' wide) are on both sides of the canal. There is evidence that a 350-foot-long wooden flume formerly spanned this portion of the canal. Some parts of the canal in the historic district have rip rap and some do not. Thousands of feet of the sloped canal walls east of Bear Creek Ranch Bridge are covered with silt and the rip rap is not apparent. In three places in the historic district, the crews carefully stacked rectangular rock on one side, making a nearly vertical rock wall. (See photos 9 and 19.)

Because of the geologic conditions presented and the technologies employed, unique characteristics were carved into the nominated Historic District. The seven people who surveyed the canal on April 3, 2017 for this nomination located nearly fifty 2.25" drill holes in rocks left in the canal bed, used as riprap and discarded near the canal. Sixteen were photographed. Evidence of steam-powered drills, of blasting, and of men with horse-drawn Fresno scrapers and steam shovels are strikingly present in the canal's exceedingly rugged, irregular bed. Tons of unnaturally-sharply-angled breakage of ancient horizontally laid lava is present. Tons of basalt boulders strewn in the bed remain as remnants of the work. A large island sat midstream just above the Bear Creek Ranch Bridge as an artifact of the labor of hundreds of men pushed to keep an ambitious schedule until they could do no more.

While some of the basalt rock flows made the bed impervious and nearly watertight, others had cracks that led to caves and underground channels that caused water losses. These holes were filled with rock and soil and concrete was used as needed. The canal has silted in and small stones and rocks have filled holes making it more impervious to seepage as it has aged.²⁵⁷ The location of the Central Oregon Canal takes full advantage of natural water courses and draws and was described by some of the settlers as 'a chain of ponds.'²⁵⁸ The rockier, less impervious portions of the canal still look like a chain of ponds today where they hold pools of water with crayfish and trout long after the irrigation season is finished.



The Central Oregon Canal Historic District displays dozens of 2.25" holes drilled for explosives.²⁵⁹

Attempting to dig into rock to carefully follow the engineer's plans and build a canal with a smooth bed and equal trapezoidal sides was abandoned and instead crews settled on a practical technique that exactly followed the carefully marked route to keep the necessary elevation, but resulted in an irregular canal that

²⁵⁷ *ibid*

²⁵⁸ Dubuis Report to Desert Land Board on the Central Oregon Project, 28.

²⁵⁹ Patricia Kliever photograph April 3, 2017, Photographer looking north.

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differed greatly from the plans, but usually functioned to carry the necessary volume of water. Where the laborers were slowed by solid rock, they made the canal shallower and wider with more inconsistent side slopes than the plans called for. But, a problem arose when the unavoidable rough bottom differed so much from the original plans that the friction inadvertently reduced the capacity of the canal. This and other issues resulted this stretch being widened twice, in 1907 and 1914.

THE CENTRAL OREGON PROJECT AND THE FOUNDING OF THE CITY OF BEND

Founding the new towns of Bend and Redmond, developing infrastructure, utilities like electric power service and basic businesses such as banks, and aggressively attracting ministers, settlers, businesspeople, tradesmen and farmers by selling thousands of acres of land in city lots and in 40 to 160-acre parcels a short time was the key to the financial success of the irrigation project. The development companies were involved in every aspect of the new towns, Bend and Redmond, making them prosperous and desirable as soon as possible.

Early Bend, 1900-1904

Brogan's *East of the Cascades* describes the area along the Deschutes River as the Alexander M. Drakes arrived in early June 1900: "The Cascade peaks to the west were white and beautiful above green skirts of pine, fir, and hemlock. There were no signs of life along the sweeping bend of the river ... Upstream a short distance, the W.H. Staats ranch was hidden in timber around a curve in the river. Still farther upstream ... was the ... Farewell Bend Ranch. To the north, within sight of the stream, were other small ranch houses, little more than cabins, most of them with histories dating to the early eighties (1880s) and most of them abandoned."²⁶⁰

Before the Pilot Butte Canal and the Central Oregon Canal were built, the area was a small, remote frontier site about 25 miles southwest of Prineville, the Crook County seat. It was in the Deschutes River canyon at one of the few places where in pioneer days it was easy to get a wagon down to the water's edge and ford the stream. Moreover, this site along the Deschutes River was the *most* accessible of these places, and the point where a canyon was not in evidence. It was at a pronounced double bend in the river, which afforded a good place to camp, beginning in the days of the emigrants, but how early is not known. "The place began to be known as Farewell Bend, and the name was appropriate irrespective of the destination of the traveler, north, south, east or west," according to *Oregon Geographic Names*.²⁶¹

In November 1904, the PBD Co. was clearing the pine trees out of Minnesota and Bond streets in the newly-platted townsite. *The Bend Bulletin* described the work. "A powerful capstan, chains, a team of horses and an axe are the instruments of this work, and they make a clean job of it, pulling over great pines four feet in diameter without difficulty, after the surface roots are cut."²⁶² Vandever indicated that he had seen the area change "from a few little log cabins to the present town of Bend ... I've seen the whole country change from what you might say was a wilderness, but a very beautiful wilderness"²⁶³

²⁶⁰ Brogan, Phil F., *East of the Cascades*, (Binford and Mort, Portland, OR., 1964), 181.

²⁶¹ McArthur, Lewis A., "Oregon Geographic Names," (*Oregon Historical Quarterly*, vol. 27, 1926), 138-39; McArthur, Lewis A., "Oregon Geographic Names: II; Additions Since 1944," (*Oregon Historical Quarterly*, vol. 47, 1946), 64-65. The various 'Bend' post offices are discussed. The Bend post office was established January 18, 1886, with John Sisemore postmaster. On March 7, 1904, a new Bend post office was established near the site of the Pilot Butte Inn (built in 1917).

²⁶² "Local Bits," (*The Bend Bulletin*, November 11, 1904), 5.

²⁶³ "Ranch on the River," (*The Central Oregon Answer Book*, Bend: The Bend Bulletin, March 27, 1994), 17. Taken from a transcription of an interview with W.H. (Billy) Vandever conducted in 1953 by KBND radio's Kessler Cannon as part of Bend's 50th anniversary celebration.

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Settlement of Bend, 1904-05

A.L. Goodwillie²⁶⁴ was the Secretary of the PBD Co., signing the Plat of Bend with Drake on May 31, 1904,²⁶⁵ two-and-a-half months after Drake's sale of the firm's irrigation contract and rights to the D. I. & P. Co., filed in Crook County on March 14, 1904. He became a partner with Drake in the PBD Co. sometime just after the two-family get-together in Bend and Portland. In addition to eastern capital, Goodwillie brought youthful energy, leadership, in addition to organizational and public relations skills.

The D. I. & P. Co. finished the first four miles of the Pilot Butte Canal and delivered water to the land close to the townsite in June 1904, so that by December, as the town incorporated, real estate prices were increasing.²⁶⁶ At this time, the PBD Co.'s business associated with settlement of the townsite went well. Streets, blocks, and lots were delineated; townsite land was cleared; lots were sold, and the town was developed in various ways.²⁶⁷ Goodwillie and Drake rebuilt the flour mill downtown following the January 1904 fire and it was back into 'full operation' in May, with forty employees.²⁶⁸ The PBD Co. offered an impressive selection of home-building materials.²⁶⁹ Drake had incorporated the Bend Mercantile Company in 1903 to also provide to the settlers building products and a wide variety of other merchandise needed, and constructed a building in which to retail them in 1904.²⁷⁰ In 1909, he was treasurer of the newly formed Bend Board of Trade.²⁷¹ He built a dam and power plant just north of the townsite, bringing electricity to the city on November 1, 1910.²⁷²

As the Pilot Butte Canal was being completed, the company could focus on advertising the land for sale and attracting settlers to the area. The townsite was due to be incorporated, ordinances were written, and a network of dirt streets was in place. Goodwillie was named as the chief petitioner for the incorporation of the City of Bend.²⁷³ On December 19, 1904, an election was held, overwhelmingly deciding in favor of the matter of incorporation, and electing Goodwillie as the city's first mayor and the Chief Engineer Charles M. Redfield as a city councilor.²⁷⁴ "BEND IS NOW A CITY" announced *The Bend Bulletin* on January 6, 1905.²⁷⁵ More than

²⁶⁴ National Register of Historic Places, Goodwillie-Allen-Rademacher House, Bend, Deschutes, Oregon, NRIS 07000493. Arthur Lawson Goodwillie is a Significant Person (Criterion B). Areas of Significance recognized by the National Register in which he contributed include Community Planning and Development, Commerce, Communications, Education, Industry, Politics/Government, and Social History.

²⁶⁵ Pilot Butte Development Company, Plat of Bend, Filed June 7, 1904. Document signed by Drake and Goodwillie on May 31, 1904.

²⁶⁶ "Real Estate Is Up: Paid \$450 and Sold for \$900," (*The Bend Bulletin*, December 8, 1904), 1.

²⁶⁷ "Week's Sales of Lots," (*The Bend Bulletin*, July 8, 1904), 5. This week the PBD Co. sold seven lots in Bend.

²⁶⁸ "Lumber to Build," (*The Bend Bulletin*, May 13, 1905), 1; "Notes of the Builders," (*The Bend Bulletin*, April 29, 1904), 2; A "sawmill outfit arriving from the railroad" in April 1904 was machinery to rebuild the mill; "Local Bits," (*The Bend Bulletin*, March 17, 1905), 5.

²⁶⁹ Advertisement, (*The Bend Bulletin*, May 31, 1907), 1. The PBD Co.'s ad lists the following: "Inch Common, Dimension, Shiplap, Rustic, T. & G. Flooring, Beaded Ceiling, Window Jambs, Window Casing, Head Blocks, O.G. Baseboard, Stair Treads, Water Table, O.G. Battins, Moldings, P.B.D. Patent Roofing, Fence Pickets, Shingles, Etc., Etc."

²⁷⁰ "Local Events," (*The Bend Bulletin*, June 5, 1903), 3. Drake's partners were Alexander Thomson, A.H. Grant and T.M. Baldwin; "General Building Note," (*The Bend Bulletin*, May 20, 1904), 1. The company sold lumber, shingles, molding and sash from its two-story building; Advertisement, (*The Bend Bulletin*, October 14, 1904), 1. John Deere agricultural implements, Phoenix Paints, dry goods, groceries, and other products were soon added.

²⁷¹ "Bend Men Form Board of Trade," (*The Bend Bulletin*, September 8, 1909), 1; *A History of Deschutes Country in Oregon*, 212-13.

²⁷² "Power Plant for Bend," (*The Bend Bulletin*, January 6, 1909), 1; "Try Out Power Plant: Machinery Works Well—Lights May Be Ready in Few Days," (*The Bend Bulletin*, November 2, 1910), 1. John Steidl and others were partners.

²⁷³ "The City of Bend: Petition for Incorporation is Signed," (*The Bend Bulletin*, November 4, 1904), 1. Goodwillie presented the document to the county court on November 26, 1904.

²⁷⁴ "Goodwillie Winner: To Be Mayor of New City of Bend," (*The Bend Bulletin*, December 23, 1904), 1.

²⁷⁵ "Bend Is Now A City: Incorporation Approved by County Court," (*The Bend Bulletin*, January 6, 1905), 1. The Crook County Court canvassed the Bend municipal electorate, finding the election legal and officially declared the result; "Elect New Officers," (*The Bend Bulletin*, December 8, 1905), 1. Goodwillie was re-elected to a two-year term on December 5, 1905; Crook County, Oregon, *An Order Granting the Incorporation of a Municipal Corporation of Bend, Oregon*, (Crook County Court, Prineville, Oregon, January 11, 1905); Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western Historical Publishing Company, 1905), 728-729.

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\$100,000 in building construction had been invested in the city in the previous year. This included \$10,025 by the PBD Co. and \$11,000 by the D. I. & P. Co.²⁷⁶

The first city council meetings were held in the office of the PBD Co., beginning on January 10, 1905.²⁷⁷ Initial matters concerned making the city respectable and attractive to settlers, potential new business owners, and professionals. Doctor Urling C. Coe, M.D., observed in his memoirs, *Frontier Doctor*, "The irrigation company had a number of (canal) construction camps within a short distance of town where hundreds of men were employed at high wages.... [Those camps were for the Central Oregon Canal construction close to Bend.] There were eight saloons with open gambling."²⁷⁸ *The Bend Bulletin* summarized the first ordinance. "The most important ordinance was that fixing the license of retail liquor saloons at \$600 per year, none to be granted for a less period than a year. A bond of \$1,000 was required of the licensee."²⁷⁹ Only five saloons were in operation by March 1905. A contract was also let for the building of a jail.²⁸⁰

To provide for the infrastructural needs of settlers including banking, utilities, and communication, A.L. Goodwillie founded and invested in several other firms. W.E. Guerin, Jr., was a partner or officer with him in these. With Guerin, he incorporated the Central Oregon Banking & Trust Company.²⁸¹ By early February 1905, two franchise ordinances were passed by the city council: one for the water, light and power company and a second for the telephone company.²⁸² With Guerin and another partner, Goodwillie incorporated the Bend Light, Water and Power Company. The firm purchased the PBC Co.'s rights to construct and maintain electric lines, gas, water, and other public utilities of the city. The city water system was in operation by July 1905.²⁸³ To connect settlers with the greater region, Goodwillie and partners incorporated the Deschutes Telephone Company, the city's first telephone company that began by running a line to Prineville. On August 17, 1904, the first voice communication was carried from just outside of Prineville to Bend over the thirty-mile long line that was also used for telegraph messages.²⁸⁴

An Illustrated History of Central Oregon captured the period succinctly, stating, "In 1905, the City of Bend marked a new era in the development of Central Oregon, and is a fine example of what can be accomplished when energy and capital unite in the development of vast resources."²⁸⁵

²⁷⁶ "More Than \$100,000," (*The Bend Bulletin*, January 6, 1905), 1. PBD Co. building investments included: sawmill, \$4,500; office, \$1,450; barn, \$800; PBD Co. residence, \$375; Drake addition to residence, \$1,100; and Goodwillie residence, \$1,800. D. I. & P. Co.'s building investments included: office, \$2,200; club house, \$1,700; stables and shops, \$1,200; granary, \$700; warehouse, \$600; powder house, cook house, etc. at experimental farm, \$600, barn, \$500, and Guerin residence, \$3,500. "Minutes of the Common Council of the City of Bend," December 1905. In December 1905, the council learned the total amount of taxable property in the City of Bend to be \$50,005 and passed a (retroactive) tax levy for 1905.

²⁷⁷ "Minutes of the Common Council of the City of Bend," January 5, 1905. Attorney W.E. Guerin, Jr. and his law partner, George C. Steinemann, provided legal services to the City. The firm charged \$150 to incorporate the City of Bend.

²⁷⁸ Coe, Urling C., *Frontier Doctor: Observations on Central Oregon and the Changing West*, (Corvallis: Oregon State University Press, 1996), 4. Coe arrived in Bend on January 10, 1905.

²⁷⁹ "Saloon License \$600," (*The Bend Bulletin*, December 23, 1904), 1; "Minutes of the Common Council of the City of Bend," December 1905. The city's chief revenue would come from the liquor license in its first year.

²⁸⁰ "For A New City Jail," (*The Bend Bulletin*, January 20, 1905). Contract awarded to the Brosterhouses.

²⁸¹ "New Bank for Bend," (*The Bend Bulletin*, July 8, 1904), 1. Firm incorporated July 8, 1904. Goodwillie served as vice-president, Guerin as president, and J.M. Lawrence as secretary. The authorized capital was \$25,000; Crook County, Oregon, *Articles of Incorporation of the Central Oregon Banking & Trust Company*, (Crook County Clerk, Prineville, Oregon, July 8, 1904).

²⁸² "Franchise Ordinances Pass," (*The Bend Bulletin*, February 3, 1905), 1.

²⁸³ Crook County, Oregon, *Articles of Incorporation of The Bend Water Light and Power Company*, (Crook County Clerk, Prineville, Oregon, November 11, 1904); The other partner was George C. Steinemann, an attorney; "Water Franchise," (*The Bend Bulletin*, February 10, 1905), 1; "Water, Light and Power Company," (*The Bend Bulletin*, November 11, 1904), 4; Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 729; "Water Pipes Arriving," (*The Bend Bulletin*, April 14, 1905), 1. A crew of 25 workers installed the water system from the river up to Wall Street and along Wall Street to nearly Oregon Avenue.

²⁸⁴ "Hello, Prineville," (*The Bend Bulletin*, August 19, 1904), 1. Guerin was president. Goodwillie was vice-president, secretary and treasurer. Gerald Grosbeck was manager; Crook County, Oregon, *Articles of Incorporation of the Deschutes Telephone Company*, (Crook County Clerk, Prineville, Oregon, July 18, 1904). Incorporating with Goodwillie were P. L. Tomkins and George C. Steinemann; "Companies Merged," (*The Bend Bulletin*, May 10, 1907), 1. In May 1907, the telephone company merged with the State Central Telephone Company at Prineville to become The Pioneer Telegraph and Telephone Company.

²⁸⁵ Shaver, F.A., et al., *An Illustrated History of Central Oregon*, (Spokane: Western History Publishing, 1905), 717.

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Governor Impressed with Settlement, June 1906

The Deschutes' Settlers Association welcomed in June 1906 Oregon Governor Chamberlain, who as head of the State Land Board had visited Bend in 1904 and had returned in that role. With him were the entire land board and some other state officials, including future governor Oswald West, then State Land Agent. Chamberlain was "well pleased with the work of the D. I. & P. Co." He said its canals and entire reclamation works showed the marks of permanency," said the newspaper. He was "impressed ... to the greatest degree ... [by] the remarkable development of this region during the past two years. At that time, he had ... found a few scattering cottages along the river and two or three buildings at the townsite. Now he was entertained in a prosperous little city with well laid streets, beautiful lawns, a fine gravity water pressure system and [a] new public-school building suitable to a city many times the size and age of Bend. Where before he found barren desert wastes now he could count prosperous ranches by the score."²⁸⁶

Bend Area Population Increases with Pilot Butte and Central Oregon Canals, 1900-1920

Bend's population showed growth as the canals were constructed and, in the years, after they were built. Approximately 312 people lived in what became Deschutes County in 1900, 21 in the Bend Precinct. Canal construction brought the town's population to 400 or 500 people by 1905. Thereafter, both the city and the adjacent areas grew as settlement occurred and farming developed. The U.S. Department of Interior reported on Bend and the adjacent areas in 1913: "The result of this [irrigation] development is reflected in a gradually increasing population, that of the entire [area] being estimated at 4,000, which is distributed among four towns as follows: Terrebonne, 75; Redmond, 800; Deschutes, 50; Bend, 1,500."²⁸⁷

Bend Tax Assessment Grows, 1905-1913

The increased property tax assessments for the City of Bend resulted from irrigation development, settlement, and farming in the region. From 1905 to the 1910-1911 period, the assessed value of the City of Bend quadrupled as the Central Oregon Project provided irrigation water for settlers who earned income from farm and ranch products and, subsequently, sought products, services, and supplies from city manufacturers, service businesses, and merchants.²⁸⁸ In 1905, Bend property tax assessments totaled \$50,005. In 1913, they had leaped to \$358,820. If the approximately \$200,000 assessed against the D. I. & P. Co and exempted by the supreme court was included in the 1910 figure, it would be nearly an eight-fold (800 percent) increase in assessed value of property in the City of Bend from 1905.²⁸⁹

Bend School System Swells Following Pilot Butte Canal and Central Oregon Canal, 1904-1913

Water was flowing in the Pilot Butte Canal in the 1905 irrigation system. Water also flowed in the Central Oregon Canal as it was constructed, beginning in the fall of 1904, to provide water to the hundreds of men and horses working in the desert on construction crews. The Central Oregon Canal was completed in 1914.

The school system quickly grew during the construction of the canals and the subsequent settlement of the area. A.L. Goodwillie, L.D. Wiest and James M. Lawrence, of the federal land office, were the Bend School District's Board of Directors, beginning in August 1904. There were 47 students at the beginning of the 1904-05 school year; in 1905, there were 102. By November 1908 there were over 200 students.²⁹⁰ Student

²⁸⁶ "Gala Day at Bend: State Land Board Present at Farmer's Institute," (*The Bend Bulletin*, June 22, 1906), 1. The newspaper summarized Chamberlain's remarks. Chamberlain was governor 1903-09, then an Oregon Senator 1909-21. Oswald West served as governor 1911-1915. Approximately 1,500 trout were barbecued for 500-600 attendees. Speakers included A.M. Drake; Jesse Steams, a prominent stockholder in the D. I. & P. Co; H.F. Jones, president of the D. I. & P. Settler's Association at Redmond; Mayor Goodwillie; John Lewis, state engineer; and Dr. U.C. Coe speaking about using pure water and avoiding pollution of the Deschutes.

²⁸⁷ Oregon Cooperative Work, U.S. Department of the Interior, Reclamation Service, *Deschutes River Projects, Bulletin No. 1*, (Washington: Government Printing Office, 1914), 4. Deschutes refers to a town just outside of Bend, used by the irrigation company, and not the 1902 plat of Deschutes adjacent to the City of Bend.

²⁸⁸ "County Assessment Is \$10,316,157: Some City Figures," (*The Bend Bulletin*, October 22, 1913), 1. Though some increase may be attributed to an expansion of the city limits, it remains an increase in the valuation of the property within the city.

²⁸⁹ The assessed value of property in the City of Bend in 1910 of \$191,524 + \$200,000 (D. I. & P. Co. exemption) = \$391,524. Just somewhat over that figure (\$400,040) would be eight times (800%) more than the City's 1905 assessment of \$50,005.

²⁹⁰ "Ready for School," (*The Bend Bulletin*, August 26, 1904), 1; "Local Bits," (*The Bend Bulletin*, December 30, 1908), 5;

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enrollment increased from 344 in 1910, to 377 in 1911, to 487 by December 1912.²⁹¹ Opening day for school in September 1919, saw 1,015 students register, an increase of 200 over opening day of 1918, partially attributed to the opening of the two great sawmills, the Brooks-Scanlon and Shevlin-Hixon Lumber Mills. .²⁹² Registered students totaled 1,408 on opening day in 1920

Railroad Officials Visit Bend

In April, 1905, the D. I. & P. Co. had finished the Pilot Butte Canal and was working on the Central Oregon Canal "when it came to the conclusion that rail transportation was essential to the settlement of the lands."²⁹³ Drake used his family connections with owners and developers of railroads and returned to Bend in late May with news the entire region wanted to hear: "From what I am able to learn, east and west, Bend's chances for a railroad are very good."²⁹⁴ Mayor Goodwillie appointed a committee of aldermen and citizens, including Drake, to receive a party of railroad officials soon to visit Bend.²⁹⁵ The officials arrived shortly thereafter to look over the locality and examine its resources and possibilities of development. The group visited the canals and the company's agricultural experimental farm just out of Bend. They had travelled from Shaniko in the 'big automobile of the Central Oregon Transportation Company,'²⁹⁶ a subsidiary of the D. I. & P. Co., which served as a stage line for the firm in its irrigation development and settlement businesses.²⁹⁷

The railroad delegation expressed surprise over the advancement the area had made in the last few years. Industrial agent Judson was enthusiastic: "The country has grown faster than there was reason to expect and there is no room for doubt that it will make a great deal of business for a railroad." Professor French, of the University of Idaho, said, "I know of no better locality for the development of the sugar beet industry." General Manager O'Brien remarked, "I am greatly surprised and gratified at what I have seen. The extent and richness of this region is beyond anything I have been led to believe. Of course, you will have a railroad here, you must have it."²⁹⁸ A week later O'Brien said, "When I see people putting hundreds of thousands of dollars into reclamation work in the Bend section I think they must know what they are doing and that practical results will follow."²⁹⁹

"School Election," (*The DesChutes Echo*, June 25, 1904), 1; "New Books for School Library," (*The Bend Bulletin*, October 7, 1904), 4.

²⁹¹ "487 Pupils in Bend District." (*The Bend Bulletin*, December 25, 1912), 1. The 487 students in 1912 were divided between 251 boys and 236 girls.

²⁹² "Attendance at Schools Show City's Growth," (*The Bend Bulletin*, September 18, 1919), 1. The number of registered students at the end of the first month, in 1918, was 885. By school, registration was as follows: junior high, 160; senior high, 150; Central 115; Kenwood 215; Reid 325; timber camps 50.

²⁹³ "Drawing to a Head," (*The Bend Bulletin*, April 14, 1905), 1. D. I. & P. Co. officials, President Turney, General Manger Johnston, and stockholder Fred S. Stanley, visited the area to analyze its condition.

²⁹⁴ "Talk of a Railroad: Plans to Build to Bend Taking Shape," (*The Bend Bulletin*, June 2, 1905), 1. Drake noted: "This matter has been all but clinched two or three times lately. But the railroad world has been struggling with important adjustments and plans have been changed on short notice. Railroad affairs cannot be said to be wholly settled yet, but they are approaching that condition. I believe before a full settlement comes, arrangements will be made for putting Bend in railway connection with the commercial world."

²⁹⁵ "Minutes of the Common Council of the City of Bend," June 20, 1905. Appointed were A.M. Drake, John Steidl, C.A. Chapman, E.F. Batten, Hugh O'Kane, R.B. Mutzig, W.E. Guerin, Jr., F.C. Rowlee and J.M. Lawrence; "Full Fire Protection," (*The Bend Bulletin*, June 23, 1905), 1. Committee of same individuals named by Goodwillie.

²⁹⁶ "Looking for Traffic: Railroad Men Examining the Bend Country," (*The Bend Bulletin*, June 23, 1905), 1. Officials included W.W. Cotton, former U.S. judge for the judicial district of Oregon, then counsel for the Oregon Railroad and Navigation Company (O. R. & N.); J.P. O'Brien, general manager for the Harriman railway lines in Oregon, Washington, and Northern Idaho; R.R. Miller, freight agent of the same; R.C. Judson, industrial agent of the same; G.W. Boschke, chief engineer of the same; E.E. Lytle, president of the Columbia Southern railway (an O. R. & N. branch); H.P. French, president of the University of Idaho; and Fred S. Stanley, secretary of the D. I. & P. Co.

²⁹⁷ "Direct Stageline," (*The Bend Bulletin*, July 8, 1904), 1. By July, the firm had two big automobiles running stage between Bend and Shaniko for both passengers and express, with mail to be added by September. The route was to make stops between Bend and Shaniko as well as travel south to Paisley, Silver Lake, and Summer Lake; "Biggest Automobile in the United States Was Built in Portland," (*The Sunday Oregonian*, March 12, 1905), pt. III, 22. A.E. Hammond, former chief engineer of the Columbia Southern Railway and former State Engineer, was the president of the transportation company; "Direct to the Railroad: Starting of the Automobile Service," (*The Bend Bulletin*, April 14, 1905), 1.

²⁹⁸ "Train to Come Soon: That's What Railroad Delegation Says," (*The Bend Bulletin*, June 30, 1905), 1. Regarding sugar beets, the professor added, "The soil is right, and the climate is favorable. A family can make a good living on a farm raising sugar beets."

²⁹⁹ "Two Steps to Bend," (*The Bend Bulletin*, July 7, 1905), 1. A week later reports indicated that the Oregon Railroad and

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INVESTORS PROMOTE AND CAPITALIZE ON CENTRAL OREGON PROJECT

William G. Robbins, PhD, Emeritus Distinguished Professor of History at Oregon State University, in his environmental history of Oregon, *Landscapes of Promise*, described the promoters and investors of the period: "Those who promoted development in the Oregon country were epic poets of sorts, harbingers of change, visionaries whose imaginations knew few restraints other than those dictated by the most obvious limits of technology and natural obstacles."³⁰⁰ The Deschutes Country was quite successful in its marketing efforts. Author and former Tumalo Irrigation District director Martin T. Winch in "Tumalo — Thirsty Land," his seminal, six-part series on the Tumalo Irrigation District, published in the *Oregon Historical Quarterly*, said: "[In 1902] the Deschutes Valley was reported to be 'the best advertised district today in the United States.'"³⁰¹

Successful Promotional Efforts of A.M. Drake

Promotional efforts for settlement were ongoing as Drake used his extensive business and family connections and friendships to politicians, government officials, regional and national newspapers, banking and financiers, and railroad tycoons "to lay plans for immigration". His early promotional efforts were primarily through local and state newspapers and in working with others, such as with A.L. Goodwillie in incorporating the City of Bend, and subsequently with the Bend Board of Trade. The Board put the Central Oregon Project in the headlines and involved community business members in promotion and development. His work was essentially behind the scenes, seemingly his forte. Sadie Niswonger of Powell Butte and later Bend, who knew Drake well, called him "an organizer" in a 1953 interview.³⁰²

Shortly after forming the Bend Board of Trade in 1909, Drake secured space in two publications with large circulations, the Portland *Chamber of Commerce Bulletin* and the *Pacific Homestead*, for an article describing the advantages of the Bend country for the home seeker, farmer, manufacturer and investor, referring to water power, excellent farm lands, raw materials, business opportunities, and good schools. A small portion read, "Today all eyes are directed toward Central Oregon. The railroads are about to give transportation to the greatest and richest undeveloped area in the West. Now indeed watch Central Oregon grow, for the development of this country in the next three years will surpass anything hitherto seen even in the wonderful Northwest." The article promptly received responses, indicating the growing interest in the prosperity of the Deschutes country following the completion of the Pilot Butte Canal in 1905 and the Central Oregon Canal in 1908. The Board received forty-five letters in the first week following the article, with fifteen referring specifically to the article in the *Pacific Homestead*.³⁰³

Drake's ability to quickly sell his irrigation company to the D. I. & P. Co. indicated experienced investors understood the canal's long-term financial opportunity. In addition, he played a crucial part in getting the railroad officials to visit the Deschutes country and made a calculated assessment of its economic potential. At the time of the officials' visit with Mayor Goodwillie's committee in June 1905, which included Drake, Frederick S. Stanley was present and Secretary of the D. I. & P. Co. He eventually invested several million dollars in the

Navigation Company was "in the field with the assurance of an extension of the Columbia Southern from Shaniko." O'Brien stated his plans. "I believe that conditions at the present time warrant building to the Agency Plains [near Madras] ... And by the time the railroad is completed to Madras, I expect conditions to be such that I can recommend an immediate advancement from there to Bend."

³⁰⁰ Robbins, William G., *Landscapes of Promise: The Oregon Story 1800-1940*, (Seattle: University of Washington Press, 1997), 244. In addition, Robbins' books include: *Landscapes of Conflict: The Oregon Story, 1940-2000*; *Hard Times in Paradise: Coos Bay, Oregon, 1850-1896*; *Colony and Empire: The Capitalist Transformation of the American West*; and *The Great Northwest: The Search for Regional Identity*.

³⁰¹ Winch, Martin T., "Tumalo — Thirsty Land," (*Oregon Historical Quarterly*, vol. 85, no. 4., Winter, 1984), 351. Winch cites the following sources: "The DesChutes Echo (Bend), Dec. 6, 1902, p.1, and Nov. 29, 1902, p. 1. Due and French, *Rails to the Mid-Columbia Wheatlands* (note 8), 44, 52. [title not provided], *Bend Bulletin*, April 3, 1903, p. 2. E.D. Culp, *Stations West*, (Caldwell, Idaho, 1972), 100."

³⁰² *Deschutes Country Yesteryear*, "Interview: Sadie Niswonger," (no. 16, summer 1995), 489. Transcription of interview of Mrs. C.P (Sadie) Niswonger by Kessler Cannon, KBND, 1953. The Niswongers came to Powell Butte in the fall of 1907 and moved to Bend in the fall of 1909. Drake asked the Niswongers to release four lots on the railroad right-of-way, presenting them with a lot at 44 Irving and had the band hall moved to that lot for them to live in until they built a house.

³⁰³ "Board of Trade Work Valuable," (*The Bend Bulletin*, October 27, 1909), 1.

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irrigation company. Moreover, he leveraged other investments in lumber, banking, and railroads, and his political connections as former chairman of the committee on railroads and transportation in the Oregon House of Representatives, to promote and grow his investment in the region.³⁰⁴ He remained with the Central Oregon Irrigation Company until 1921. Goodwillie, Drake's PBD Co. partner, disposed of "his holdings in Bend on a rising market" in 1907, including his stock in the PBD Co. to Drake, resigned as mayor and returned to Chicago with his wife who was expecting their first child.³⁰⁵ He continued to own property and visited Bend many times, saying his years in Bend were the happiest in his life.

D. I. & P. Co. Promotions

The D. I. & P. Co. was a polished public relations organization for its period of history and its area of the nation, with the marketing and publishing experience of eastern businessmen. Moreover, the Central Oregon Project was a good irrigation system, embraced by suitable land for farming and ranching, and the ownership knew it. In April 1904, the company had issued a well written and illustrated booklet describing the Deschutes Country and its irrigation work. It described in detail the character of the soil, source of water supply and the prices that products raised on the lands were bringing. Ten thousand copies were printed and distributed to regions from where new settlers were likely to originate.³⁰⁶ Months before the project was completed, settlers had applied for 1,845 acres by September 30, 1904.³⁰⁷ *The Morning Oregonian* said in early 1911, "Central Oregon is well styled the 'most-talked-of territory in the West' ... and the heart in geographical position and economic possibility."³⁰⁸ Indeed, a newspaper advertisement found even before the canal was completed invited prospective settlers:

FREE LAND IN OREGON. In the richest grain, fruit and stock section in the world. Thousands of acres of land at actual cost of irrigation. Deed direct from State of Oregon. WRITE TO-DAY. BOOKLET and MAP FREE. Deschutes Irrigation and Power Company, 610-11-12 McKay Building, Portland, Oregon.³⁰⁹

The D. I. & P. Co. opened real estate offices in Portland and Prineville. Promotional efforts were not historically unique to the D. I. & P. Co., nor were such efforts unique to irrigation development companies. The railroads were among the first and best to develop the marketing of government lands long before the Carey Act was enacted. Not only were corporations involved in these efforts, many cities and towns, through commercial clubs, made efforts to encourage settlers to 'buy now', and even individual land owners sought to encourage settlers to purchase from them, as 'the railroad will soon be passing by'.³¹⁰

³⁰⁴ Duniway, David C., State Archivist, Oregon State Library, *Members of the Legislature State of Oregon 1860-1949*, (Oregon State Archives, Bulletin No 2, publication no. 14, 1949), 32. Frederick S. Stanley had served in the Oregon House of Representatives from Union County in 1897, 1898, and 1899. In 1899, he was the chairman of the committee on railroads and transportation; Gaston, Joseph, *Portland, Oregon: Its History and Its Builders*, (Chicago—Portland: S.J. Clarke, 1911, vol. 2), 58-59. Stanley, originally from Wisconsin, organized the Grand Ronde Lumber Company at Perry and the Stanley-Smith Lumber Company at Hood River. In 1904, he organized the First National Bank of Hood River with headquarters in Portland. He was president of the Railway Exchange. Source indicates Stanley's work with the irrigation company would be an investment of four million dollars; "Right of Way Is Now Approved," (*The Bend Bulletin*, July 21, 1909), 1. Stanley had been vice-president of the D. I. & P. Co. as early as July, 1909, and had been doing whatever he could to resolve conflicts with the Harriman railroad operations where there were surveys in areas of the Central Oregon Railroad Company's line, which was being operated under the management of the irrigation company.

³⁰⁵ "A. L. Goodwillie Is Dead At 67," (*Lynchburg News*, Lynchburg, Virginia, January 15, 1946), n.p.; "Local Bites," (*The Bend Bulletin*, June 21, 1907), 5; "Election Day Soon," (*The Bend Bulletin*, November 12, 1907), 1.

³⁰⁶ "Advertising the Country," (*The Deschutes Echo*, April 16, 1904), 1.

³⁰⁷ State of Oregon, *Report of State Land Board Relative to Desert Lands, Granted the State Under the "Carey Act" for the Period Commencing October 1, 1902, and Ending September 30, 1904*, to the Twenty-Third Legislative Assembly [Regular Session], (Salem, Oregon, 1905), 11.

³⁰⁸ "Railroads Will Open Great Inland Empire: Crook County," (*The Morning Oregonian*, February 4, 1911) 42.

³⁰⁹ Advertisement, (*Oregon Daily Journal*, July 11, 1904), 16.

³¹⁰ Davis, H.L., *Honey in the Horn*, (New York: Avon, 1935, 1962), 330-363. This practice was so ingrained in Central Oregonians and others, it became a part of the narrative of this 1936 Pulitzer Prize-winning novel by a native Oregonian who lived in Wasco County near the Deschutes River during his teenage years. Set in the homesteading years of 1906-08, it follows the characters from the Oregon coast to the Willamette Valley and, finally, to Central Oregon, where many were expecting "old E.H. Harriman" to soon build a railroad. Mr. Pringle, of "Pringleville, the Gateway too [sic] Eastern Oregon, [offered] Home Sites on Easy Terms, Industrial Locations Free. Parties interested were invited to lay their cases before the J.B. Pringle Real Estate Company, whose offices adjoined

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Schwantes observed, "All had a common desire to attract settlers and investors in order to promote economic growth and guarantee a prosperous future."³¹¹

Promotion was not limited to printed materials. Elaborate displays at fairs and expositions promoted the irrigated land for sale. In 1908, a representative of the Oregon Commission of the Alaska-Yukon-Pacific Exposition, to be held in Seattle, visited Bend to prepare an exhibit for the event. He took three photographs of the shared headgates and photographs of a field of clover and of a large vegetable garden grown on irrigated land. These were made "into stereopticon views 10' or 20' square and were to be used to illustrate lectures given" at the exposition. Commitments from settlers to send a variety of farm products were obtained.³¹²

The Promotional Campaign of the Great Northern Railroad

Nothing quite compared, however, to the promotional campaign by the Great Northern Railroad once the Deschutes Country had developed and 'built-up' the area's population and infrastructure and had established financial institutions³¹³ and communication technology of sufficient scale to bring the region into the economic lifeblood of the nation. The Great Northern Railroad's objective was "the thorough advertising and colonization of Central Oregon." The railroad joined efforts with New York publishing house G. P. Putnam's Sons, with its actual son, George Palmer Putnam, whose writings on Central Oregon had already appeared at intervals in the *Oregonian*. Besides a bulletin to be published with Putnam's stories and photographs to advertise Central Oregon, the railroad had collected farm products to be placed on exhibit in St. Paul, Philadelphia, Boston, and other locations.³¹⁴ Putnam moved to Bend and had a house with a basement theater built on State Street. (See the Drake Park Neighborhood Historic District nomination.) Schwantes noted, "The transcontinental railroads spent fortunes to advertise the [Pacific Northwest] to prospective tourists and settlers."³¹⁵

The Promotional Campaign of the Southern Pacific and the Oregon Railroad & Navigation Company

The Southern Pacific and the Oregon Railroad & Navigation Company in 1910 co-published and widely distributed a 35-page promotional pamphlet of the Central Oregon Irrigation Project called, *Redmond Now*. The railroad companies hoped to attract settlers to increase the passengers and commodities on their rail lines. The Oregon Historical Society wrote that the pamphlet stated, "Everything points to Redmond as a commercial center. Merchants, professional men, manufacturers, home-seekers should investigate Redmond now, before the railroad [the Oregon Trunk Railway] is completed, before values enhance greatly, before the big opportunities are all taken."



Railroads published a series of *Redmond Now* publications, promoting settlement in the Redmond area.³¹⁶

the hotel dining-room" (p. 346).

³¹¹ Schwantes, *The Pacific Northwest*, 288-89.

³¹² "More Advertising," (*The Bend Bulletin*, July 31, 1908), 1.

³¹³ "A National Bank," (*The Bend Bulletin*, August 7, 1908), 1. The Central Oregon Banking & Trust Company was dissolved, and an institution known as the First National Bank of Bend, Oregon took its place.

³¹⁴ "Great Northern Begins Extensive Campaign to Advertise Central Oregon," (*The Bend Bulletin*, February 16, 1910), 1. The railroad had already begun advertising in Montana and Washington.

³¹⁵ Schwantes, *The Pacific Northwest*, 291.

³¹⁶ Oregon Historical Society photo.

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Joshua Binus studied the historic context of the *Redmond Now* publications for the Oregon Historical Society in 2005. He wrote, "Redmond was platted for development in 1906 and by 1910 was populated by more than 200 people. By the time the "*Redmond Now*" pamphlet was being distributed, the town already had a school, two banks, telephone service, a library, jail, lumber and brickyards, saloons, laundry, and many other small businesses. In 1911, the development of a small hydropower plant at the nearby Cline Falls provided electricity to the town, and a year later Redmond's residents supported the construction of a municipal water system. Until 1915, Redmond rivaled Bend as the commercial center of central Oregon, but that year two large lumber companies decided to locate mills in Bend. The two mills operated by the Shevlin-Hixon and Brooks-Scanlon companies led to a population boom in Bend. The fast-growing community and economy of Bend quickly eclipsed Redmond's slower growth, and in 1916, when the two communities competed for the location of the county seat, Redmond lost out to its larger neighbor."³¹⁷

The Bend Company Sells Property in Bend

The Bend Company, a new, robust firm, was incorporated in March 1911, to capitalize on the growth relative to the successful settlement brought about by the two canals, particularly the establishment of the City of Bend and the increasing farm population with growing families. *The Bend Bulletin* summarized the mega-transaction: "3,000 acres of timber lands, 2,000 acres of agricultural lands, 1,400 acres adjacent to town, 1,300 platted lots, the Pilot Butte Development Company sawmill, the power and lighting plants, city water system, and various water power and irrigation rights."³¹⁸ The properties of the PBD Co., the Bend Townsite Co., and the Bend Water, Light & Power Co., as well as valuable water power sites on the Deschutes River, all primarily held by A.M. Drake, had been sold to a syndicate of Eastern lumbermen, and Dayton, Ohio, and Oregon capitalists.³¹⁹

The Bend Company was immediately busy marketing real estate, selling at least 35 lots of business and residential properties in the first two weeks after completing the transaction.³²⁰ "The conditions in Bend could not be more favorable for making investments in business property than they are today. There is not a town in the State of Oregon, nor is there one in the entire West where the resources and conditions are such as to make certain a city of the size Bend is sure to be," said a 1913 advertisement.³²¹ Of those properties purchased, The Bend Company sold 46% of the Bend Townsite lots; 41% of Park Addition lots; 31% of North Addition lots; and 73% of Center Addition lots, or an overall average of 59% of the lots in these four neighborhoods of Bend by March 31, 1916. The firm controlled all the actual business lots and nearly all the intermediate lots that could be developed into business lots.³²² It donated lots for churches.

The Railroad Arrives in Redmond and Bend in 1911

The development of the canals directly resulted in the arrival of railroads in the region. Bend's first mayor, Arthur Goodwillie's committee was successful in showing the railroad officials the richness of the Deschutes Country between 1905 and 1907. The economic stimulus and population growth which followed the completion of the Central Oregon Project could not be overlooked. 'Railroad Day' was put on as a promotion

³¹⁷ Joshua Binus, © Oregon Historical Society, 2005.

³¹⁸ "New Company Formed," (*The Bend Bulletin*, March 29, 1911), 1. Incorporators were J.M. Lawrence, Franklin T. Griffith, and Clyde M. McKay. The firm was capitalized at \$360,000.

³¹⁹ "Town of Bend Been Bought," (*The Redmond Spokesman*, March 9, 1911), 1. Drake held the greater part of the interest in these before the transaction, with Frank Robertson of Portland having an interest in the Bend Townsite Co. and the Bend, Water, Light & Power Co.; "Bend Townsite Changes Hands: New Company Takes Over Holdings of Drake and Robertson, Including All the Properties At Bend," (*The Bend Bulletin*, March 8, 1911), 1; "Townsite Deal Goes Through," (*The Bend Bulletin*, March 3, 1911), 1; Various Deeds, see Bibliography.

³²⁰ "Townsite Chiefs Start Work," (*The Bend Bulletin*, April 15, 1911), 1. The spokesman for the firm said "the new company will inaugurate a vigorous publicity campaign. It is the intention to issue much advertising matter and to keep Bend in the public eye"; "Buyers Busy: Local Lots Are Selling Rapidly," (*The Bend Bulletin*, April 26, 1911), 1. A list of buyers and lots is provided.

³²¹ Advertisement, (*The Bend Bulletin*, July 30, 1913), sec. 3, 6.

³²² "Notes," The Bend Company, Price, Waterhouse & Co., March 31, 1916; "Bend Townsite Changes Hands: New Company Takes Over Holdings of Drake and Robertson, Including All the Properties At Bend," (*The Bend Bulletin*, March 8, 1911), 1. Among the holdings affected by the transfer included portions of the Bend Townsite, and Center, Park, and North Additions. Figures are the percentage that had been sold by March 31, 1916, of the total number of properties transferred from Drake's holdings to The Bend Company.

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of the area by The Bend Company, and was celebrated in Bend on October 5, 1911, with a crowd of 1,500 to 2,000 people and distinguished dignitaries. The Oregon Trunk's James J. Hill swept into Bend and drove the golden spike at the Bend depot marking the completion of the route.³²³ Hill's speech that day was one of great promotion of the area. He had that day seen "the vegetables and grains and grasses, the products of the soil that reflect the power and the natural wealth of the soil. And, there is no mistake about it," he said, "it can be done because it has been done."³²⁴ The fruit, vegetable and grain exhibit that day in the middle of Oregon Avenue between Wall and Bond streets reportedly "was an eye-opener not only to the visitors but to a majority of the Bend people themselves."³²⁵ His representative, John I. Springer, had been in the region and set in motion a number of matters two years earlier, and had met with Drake and other members of the Bend Board of Trade. Hill's operations had been advertising the lands in the area for some time by the time the railroad arrived.³²⁶ The railroad provided the avenue for settlers in greater number to arrive and for irrigated farm products, livestock, lumber, and other products to travel to regional and national markets.³²⁷

THE CENTRAL OREGON PROJECT AND THE CITY OF REDMOND

Settlement of Redmond, 1905-1911

In the Pacific Northwest, Schwantes points out, "when irrigation opened new lands to settlement, cities, and towns typically spearheaded agricultural development of the surrounding countryside and formed local markets for farmers."³²⁸ The D. I. & P. Co.'s Supplemental Articles of Incorporation provided: "To establish colonies, cities, villages, and towns, including the layout of said towns into lots and blocks and dedicating the streets and alleys of the same to public use."³²⁹ The company developed a plan to establish a town near the north end of the Pilot Butte Canal in the area to be irrigated and then formed the Redmond Townsite Company. In May of 1905, as water flowed in the Pilot Butte Canal and was delivered to settlers, engineers began surveying and staking out the town, and crews of laborers cleared streets and lots for the Townsite of Redmond in May 1905, beginning with 20 acres, with a total of 320 acres set aside. The PBD Co. platted the new town shortly thereafter.³³⁰

Redmond was located on the Pilot Butte Canal and was named for Frank T. and Josephine Redmond, husband and wife, who had left school teaching positions in North Dakota, settling in Wasco, Oregon, for a short time. At the end of the school year in 1904, they set up their homestead tent amid the sagebrush and junipers on land to be served by the Pilot Butte Canal. According to Brogan, "The Redmonds, records indicate, were the first purchasers of Carey Act land in Central Oregon."³³¹ For two years, they hauled water from the Deschutes River several miles away, later building a farmhouse and outbuildings, bordered on one side by the Pilot Butte Canal and, in 1911, on the other side by the railroad. The Redmonds exhibited the greatest number of farm products at the first (1906) and second Potato Show sponsored by the D. I. & P. Co. However, their toughest competition came from the company's experimental farm.³³² The city incorporated on July 6, 1910.

Commented [HC49]: This nomination is for a segment of the CO canal, so this detailed discussion of Redmond settlement is unnecessary, and discussed previously in the PBC: Redmond Historic District nomination

³²³ "Railroad Day Here Is Great Event: James J. Hill Drives Golen [sic] Spike and Bill Hanley Lays Cornerstone—Nearly 2000 People Here for Celebration," (*The Bend Bulletin*, October 11, 1911), 1.

³²⁴ *Ibid.*, 8.

³²⁵ "Exhibits Surpass Expectations," (*The Bend Bulletin*, October 11, 1911), 6.

³²⁶ "Hills Interested In Deschutes Country," (*The Bend Bulletin*, October 6, 1909), 1.

³²⁷ "At Last," (*The Bend Bulletin*, August 28, 1908), 4. *The Bend Bulletin* opined on the matter several years before, saying "There will be a top-notch market for every pound of hay, grain, vegetables, butter, and eggs that the country can produce."

³²⁸ Schwantes, Carlos Amaldo, *The Pacific Northwest: An Interpretive History*, (Lincoln: University of Nebraska Press, 1996), 295.

³²⁹ Oregon State Archives, Articles of Incorporation # 9549, Deschutes Irrigation & Power Company, February 10, 1904. Clause found in Article III, 13.

³³⁰ "Townsite of Redmond," (*The Bend Bulletin*, May 5, 1905), 1. B.S. Cook & Co. was the realty firm; Cook was an irrigation company engineer. Location was about four miles east of Cline Falls in section sixteen, township fifteen south, range 13 east.

³³¹ Brogan, Phil F., "The Watering of the Wildermess," (*The Bend Bulletin*, February 12, 1931), n.p.; *A History of the Deschutes Country in Oregon*, (Deschutes County Historical Society, Bend, OR., 1985), 410.

³³² Hole, Leslie Pugmire and Trish Pinkerton, *Images of America, Redmond*, (San Francisco: Arcadia Publishing, 2009), 41. Authors cite a September 21, 1933, *Redmond Spokesman* article; "D. I. & P. Headquarters to be Located at Redmond," (*The Redmond Spokesman*, September 15, 1910), 1. The company announced, at that time, it would move its headquarters from Bend to Redmond;

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Challenges of Early Settlers near Redmond

Challenges of the early settlers were described by noted local author and historian Keith Clark in *Redmond: Where the Desert Blooms*: "Settlers who came to Redmond came there to farm, to improve the land, to subsist from it, or sell it for a profit. The circumstances of water made land prices higher, but the certainty of some sort of harvest was worth the gamble. When the land was acquired in its pristine state of sagebrush, juniper, and lava rock, it had to be tamed. The sagebrush and the junipers were little hindrance to pioneers whose fathers and grandfathers had cut their way west from the eastern seaboard. The rocks were something else ... Farmers built stone boats, heavy sleds upon which the rocks picked painfully from the land could be dragged to a disposal point. Some rocks defied removal, and since there was obviously no soil under them, they were left intact. Sans rocks, the sandy acres must then be leveled and made ready for planting ... All [of] this with horse and hand power from dawn to dusk."³³³ Rocks moved toward the surface with plowing and the freeze/thaw cycle of winter and had to be removed every year.

Reflecting on Redmond's Settlement

A February 9, 1911, *Redmond Spokesman* article reflected the city's settlement, growth, and optimism, counting a variety of business and social opportunities in the city:

"Redmond has a garage, two banks, two doctors, one bakery, a brickyard, four lawyers, three saloons, two dentists, two railroads, one tailor shop, a skating rink, novelty works, two feed stores, a public library, a reading circle, two newspapers, two drugstores, one harness shop, two barbershops, three restaurants, two transfer lines, one hand laundry, a city water plant, two lumber yards, one jewelry store, a fire department, a basketball team, two photographers, one millinery store, two meat markets, two bowling alleys, one furniture store, a social dancing club, a woodworking plant, two hardware stores, three blacksmith shops, an electric light system, two large general stores, five real estate agencies, four confectionary stores, a central telephone office, five church organizations, two billiard and pool halls, a brass band and orchestra, a passenger and express line, two large sale and feed stables, four fraternal organizations, one cleaning and pressing establishment, ladies auxiliary to the Commercial Club, a public school to the tenth grade, the largest department store in Central Oregon, a Commercial Club with a membership of over 100, [and] two hotels."³³⁴

In an April 23, 1921, letter to Fred Henshaw of the Federal Power Commission Board of Engineers, from J.G. McGuffie, Secretary and Counsel for the Central Oregon Irrigation Company, a successor of the D. I. & P. Co., McGuffie observed "the thrifty town of Redmond with its banks and mercantile establishments is *wholly dependent upon the agricultural community surrounding it, which is the result of irrigation*" [emphasis added].³³⁵

Powell Butte is 8 miles east of Redmond and 25 miles northeast of Bend. The development of Redmond provided shopping and services much closer than in Bend for the settlers in Powell Butte.

Ward, Elizabeth, *Redmond: Rose of the Desert*, (Redmond: Midstate Printing, June 1975), 2-3. Ward writes that Redmond got its name from a conversation Mr. Redmond had with two D. I. & P. Co engineers, Charles M. Redfield and B. S. Cook. The engineers suggested the named 'Redmond'; "Waterworks Plant: Plans Drawn for System at Redmond," (*The Bend Bulletin*, June 28, 1907), 1. By the summer of 1907, D. I. & P. Co. engineer C.M. Redfield had drawn up plans for a waterworks system for Redmond.

³³³ Clark, Keith, *Redmond: Where the Desert Blooms*, (Portland: Western Imprints, 1985), 8-9. Clark's qualifications as historian and author are presented above in earlier material.

³³⁴ "What We Have in the Hub City," (*Redmond Spokesman*, February 9, 1911), sec. 2, 1; Oregon Cooperative Work, U.S. Department of the Interior, Reclamation Service, *Deschutes River Projects, Bulletin No. 1*, (Washington: Government Printing Office, 1914), 4. The federal government reported Redmond with a population of 800 in its 1914 bulletin. Terrebonne, just five miles north, had 75 residents.

³³⁵ McGuffie, J. G., Secretary, Central Oregon Irrigation, Letter to Fred F. Henshaw, Federal Power Commission Board of Engineers, April 23, 1921.

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THE RESULT of IRRIGATION: FARMING and AGRICULTURE IN THE DESCHUTES COUNTRY

D. I. & P. Co.'s Experimental Farm, June 1905

Reclaiming the arid land was a goal of the project. The company knew that most people coming to buy land and try farming on the high desert in volcanic soil did not have any experience in the conditions found there. Another factor in the success of the Central Oregon Project was the company's research and a series of news articles and booklets dispensing information to settlers about which crops could be successful in the high desert and about the best methods to distribute the irrigation water to the crops. The D. I. & P. Co. established an 'experimental farm' on 100 acres just outside Bend to demonstrate what its lands could produce, as part of its promotional campaign to attract settlers to visit and buy the segregated lands. It showed positive results after a year of operation. The land was cleared and leveled, the soil was prepared and seeded, and then ditches brought water on to it, and cultivation began. Water was introduced at every part of the farm and was applied in numerous ways to a variety of crops under various conditions. Careful records of the results were kept. Grain was subjected to irrigation by different plans. Beets had the water carefully measured out to them. Data from various measurements were used as a basis for calculating how much water a farm might need for certain crops under various circumstances and conditions. The products were tried on the market and they were 'snapped up in a hurry. No man has ever [eaten] more delicious vegetables than come from the farm,' a reporter noted. A wide variety of experiments were conducted with multiple crops grown together. There were fields of oats and vetch, oats and peas, and the three were sown separately. There were dry-land crops and wet-land crops. After one year of development the experimental farm was a success.³³⁶ Competitions were held to bring in the private experiences of farmers in Alfalfa and Powell Butte and the results were published in the newspapers.

The following two photographs show promotional photographs of farming methods being tested at the Deschutes Irrigation & Power Company's Experimental Farm were aggressively published across the country. The first one appears to be in summer, the second one appears to be near harvest time.



Furrow irrigation on D. I. & P. Co's Experimental Farm.³³⁷ 1910

Early Farming Success

Near Bend, the ranch of Dr. C.E. Coons, in 1906, portended the success other farmers would have. All over the segregation various crops were "showing a most gratifying growth." Coons' forty-acre tract was "proving a veritable garden spot — an example of where water makes the desert bloom as the rose; a promise of what the future will bring to the upper Deschutes valley," said a report in mid-summer. His tomatoes were 10" high with broad tops and had a healthy appearance. Squash vines showed remarkable growth. Sweet corn planted two months earlier were 12" to 18" tall. String beans showed not a patch of frost and promised a high yield. Four-thousand cabbages were heading and soon to be on their way to market. Lettuce was impressive with leaves 8" to 10" long and from 6" to 8" wide. It was very crisp and tender. Potatoes planted in mid-April were

³³⁶ "Change of a Year: Transformation at the Experiment Farm of the D. I. & P. Co.—Crops in Excellent Condition," (*The Bend Bulletin*, June 16, 1905), 1; "Our Land and Water: Experiments to Learn Behavior," (*The Bend Bulletin*, April 7, 1905), 1.

³³⁷ *Redmond Now*, 1910, Vol. 18.

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already providing the doctor's family with a plentiful supply. Grains were doing well, too, with rye more than 6' high. Strawberries, gooseberries and raspberries were all growing beyond expectations and already producing fruit. The article noted, "Ranches all through this region are making remarkable showings this year, and the doctor's success is no exception."³³⁸

Despite the challenges, numerous farming success stories are associated with the Central Oregon Project. The *Morning Oregonian* observed, "Upon this land, whose soil is of rich volcanic ash, practically all the products of the temperate zone can be raised advantageously."³³⁹ Rasmus Petersen, a Danish immigrant, came to settle and farm between Bend and Redmond in 1905, initially earning wages by working to construct the Pilot Butte Canal. He was inspired by an article written for a Portland newspaper by Governor Chamberlain after his visit to the area, beginning "If I were a young man I would acquire an irrigable tract of land in Central Oregon." Petersen's story of arduous, backbreaking homesteading work in the ubiquitous lava rock, and subsequently developing an extremely successful irrigated farm is well documented. He acquired 200 acres by homesteading under the Carey Act and successfully grew wheat and oats, alfalfa, potatoes, and other crops, becoming financially successful.³⁴⁰ A September 30, 1915, article on local farms and ranches in the *Redmond Spokesman* described Petersen's farm as follows: "Rasmus Petersen ranch: Fine corn and oats and 200-ton crop of alfalfa from 85 acres."³⁴¹ He also very successfully raised dairy cows and other livestock under the irrigation system.

Petersen was among farmers in the area in 1925 that cooperated with the county agriculturalist³⁴² to test different strains of Deschutes Netted Gem, a variety of *Russet Burbank* potato that had been developed in the area.³⁴³ A program overseen by the federal government began as early as 1904 with a letter from the Honorable Elwood Mead, chief of the irrigation and drainage investigation of the U.S. Department of Agriculture, indicating plans to establish an agricultural experiment station relative to the Pilot Butte Canal to "conduct a scientific and practical study of the soil under sound farming operations."³⁴⁴ The Agricultural College conducted a demonstration farm near Redmond in 1912, growing crops used for livestock feed. The average yield of clover and alfalfa was a little over three tons per acre. Corn yielded sixteen tons of fodder, rutabagas twenty-five tons, mangels (a type of beet used for forage for cattle, chickens, swine and sheep) twenty tons, field peas three tons of hay per acre, spring barley sixty to seventy bushels per acre, spring oats fifty bushels per acre, and potatoes yielded ninety to 245 bushels per acre. The report noted, "This shows something of the possibilities of this [area], where the best modern methods are employed."³⁴⁵

³³⁸ "The Soil Is Fertile: Crops of All Kinds Make a Fine Showing," (*The Bend Bulletin*, July 6, 1906), 1.

³³⁹ "Railroads Will Open Great Inland Empire: Crook County," (*The Morning Oregonian*, February 4, 1911), 42.

³⁴⁰ *Deschutes County Yesteryear*, "Came to Bend Using Wagon," (no. 12, fall 1991), 381-83. Reprinted from *The Bend Bulletin*, May 26, 1925; MacHaffie, Ingeborg Nielsen. *Danish in Portland: Past and Present*. (Tigard: Tigard Press, Skribent Press, First Printing, 1982), 9. Petersen's success was shared with other Scandinavian farmers in a 1915 letter in *The Pacific Scandinavian* [sic] from Pastor J.S. Scott of Portland's Bethany Danish Luther Church. "Rasmus Petersen harvested seventy bushels of wheat per acre," it read. Scott quoted in *The Pacific Scandinavian* [sic]; see also National Register of Historic Places, Petersen Rock Garden, Redmond, Deschutes, Oregon, NRIS 13000859.

³⁴¹ Hole, Leslie Pugmire and Trish Pinkerton, *Images of America, Redmond* (San Francisco: Arcadia Publishing, 2009), 47.

³⁴² The program was through the Oregon Agricultural College. It later became Oregon State University's Extension Service.

³⁴³ Mosley, A., O. Gutbrod, S. James, K. Locke, J. McMorrin, L. Jensen, and P. Hamm, "Grow Your Own Potatoes," Extension Service, Oregon State University, Corvallis, Oregon, EC 1004, Revised March 1995), 2.

³⁴⁴ "Will Try Our Land," (*The Bend Bulletin*, September 30, 1904), 1. Mead indicated work would be conducted under his direction for three years. A federal irrigation expert was to select acreage where conditions are best suited to demonstrating the powers of [the] soil and climate and showing the best method of treatment. This station would conduct a scientific and practical study of the soil under sound farming operations. Director Withycombe of the Oregon Agricultural College was interested and planned to "follow the work with careful attention." Mead was based out of Cheyenne, Wyoming, and was in charge of directing irrigation studies across the West. Withycombe, of the Oregon Agricultural College, now Oregon State University, became Oregon's fifteenth governor, 1915-1919; "Valley Project to Refine Great Basin Resources," (*The Register-Guard*, July 31, 1938), sec. 1, 5. By 1935, Elwood Mead was referred to as the "foremost authority in America on irrigation." Lake Mead behind Hoover Dam was named after him.

³⁴⁵ State Engineer, [Presumed to be John Lewis], *Deschutes Project: Oregon Cooperative Work*, (Department of the Interior, U.S. Reclamation Service, Portland, 1914), 123-24. These crops were primarily for dairy herd and hog raising feed. Water used was considerably less than that generally assumed to be needed in the area. The experimental station remains in Central Oregon today.

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Deschutes Country Average Parcel Size, Crop Report and Farm Census, 1915

A census of crops, stock and people was made in a report on the Central Oregon Project to the Desert Land Board in 1915. It included 645 farms with an average size of 48 acres, and an average size of small farms of 42 acres. The total irrigable acres reported on were 30,692. The types of crops and their acreage were as follows: Alfalfa, 7,351; clover, 2,250; grain, 6,004; potatoes, 757; orchard, 222; garden, 612; miscellaneous, 525; and total acres in crop, 17,719. The stock census found the following: beef cattle, 1,209; dairy cows, 1,004; horses, 1,174; swine, 5,589; and sheep, 443. Total rural population found in the study was 1,398, not including population in towns and cities.³⁴⁶

Markets existed in the cities, in the small towns, and within the farming communities. Settlers also had truck gardens, saddle horses, horse team to pull farm equipment, hogs, goats, chickens and a milk cow for their own use or to share with neighbors.



Farming near Redmond³⁴⁷

Bountiful Crops and Livestock in Deschutes Country, 1913

Harvest levels of all crops in 1913 were extremely high, as was production of livestock across the Deschutes Country. Farming was being increasingly diversified. Both clover and alfalfa hay products attained high levels. Big root crop yields were reported. It was said to be "probably the best all-round year they had." Potatoes yielded as much as 400 bushels per acre. The largest yield of hay was four tons per acre. The variety of vegetables raised in the area had steadily grown in volume not simply with gardens, but in acres of parsnip, carrot, rutabaga, artichoke, cabbage, and pea. In addition to crops, cattle were being raised in increasing numbers as the dairy industry grew. The hog population was growing fast, and swine raising was popular at Powell Butte. Lesser quality livestock were replaced by the best breeds of beef, dairy and pork. The region was viewed as "on the eve of doing great things in producing butter and allied products and pork."³⁴⁸

Settlers Organize to Market Farm Product, 1919-21

By 1919, the Deschutes County Farm Bureau had organized various settler communities for buying and selling hay. Alfalfa hay was one of the most profitable products to grow.³⁴⁹ The Oregon Cooperative Hay Growers for the Deschutes Valley was organized in Redmond in December 1921. Forty-one growers represented the farms near Bend, Redmond, Deschutes, Terrebonne, Alfalfa and Powell Butte. That year, the cooperative farmed over 1,000 acres of alfalfa, and sold 1,500 tons of hay. A policy of selling only certified product was adopted. All hay shipped out was identified with a tag: "Oregon Cooperative Hay Growers' Deschutes Valley Hay." Primary markets were the Atlantic seaboard and California.³⁵⁰

³⁴⁶ Dubuis, John, Field Inspector, *Report to Desert Land Board on Central Oregon Project*, (Salem: State Printing Department, 1915), 47.

³⁴⁷ *Redmond Now*,³⁴⁷ 1910

³⁴⁸ "Crops This Year Are Bountiful," (*The Bend Bulletin*, October 22, 1913), 1.

³⁴⁹ "Farm Meeting Held At Pleasant Ridge," (*The Bend Bulletin*, February 27, 1919), 6.

³⁵⁰ "Oregon Co-operative Hay Growers' Ass'n Organized Here," (*The Redmond Spokesman*, December 15, 1921); "Certified Hay Finds Favor with Buyers," (*The Redmond Spokesman*, December 8, 1921), 1; "Hay Grower's Organization Is Effected," (*The Redmond Spokesman*, November 14, 1921), 1.

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Farming Acreage Summary 1913, 1922, and 1931

The U.S. Department of Interior reported in 1913 that the Pilot Butte Canal was "serving water to 25,000 acres of irrigable land, of which 16,800 acres were actually in crop."³⁵¹ A 1915 report to the Desert Land Board showed that of the 21,348 irrigable acres of land in 1914, under the Pilot Butte Canal system, 18,913 acres, or 89% percent were sold. By then, the Pilot Butte Canal had 30.1 miles of main canal and 175.08 miles of laterals.³⁵² The Federal Power Commission's 1922 report stated that 19,169 acres were sold under the Pilot Butte Canal, with 1,542 acres unsold.

The Central Oregon Canal had 45 miles of main canal and 11 laterals and was serving 26,400 acres.³⁵³ There were 27,208 acres sold under the Central Oregon Canal system and 9,170 acres unsold.³⁵⁴ The engineer reports showed that there was 'a material shortage of capacity in the main canal' and enlargement efforts were begun and undertaken as funds were available.

Polk's Deschutes County Directory for 1924-25 stated, "We have ... 1,000 farms producing alfalfa, potatoes, grain and other farm crops suitable to our soil and climate."³⁵⁵ The Bend Chamber of Commerce reported, "The number of farms in Deschutes County increased twenty-three percent from 1925 to 1930, according to United States census figures, exceeded by only three counties in the State of Oregon, and the value of farmlands and buildings increased eighteen-and-a-half percent, exceeded, again, by only three counties in the state. These Deschutes County increases were all in irrigated sections."³⁵⁶

Author and historian Phil Brogan's research a decade later (1931) summarized the work that had been accomplished by both canals during the period: "Actual construction started in 1903 and up until 1921 approximately 600 miles of canals and laterals had been built and 45,371 acres of land reclaimed for irrigation."³⁵⁷

END OF THE COMMERCIAL ENTERPRISE UNDER THE CAREY ACT SETTLERS BECOME THE CENTRAL OREGON IRRIGATION DISTRICT, 1921

To complete the June 17, 1907 requirement of the State Desert Land Board to turn the D. I. & P. Co. over to the settlers within 10 years, a proposal arose in 1915 that the Central Oregon Irrigation settlers begin to form a district.³⁵⁸ At that time, irrigation economist Ray Palmer Teele, M.A., wrote in his 1915 book, "Few large Carey Act enterprises have reached the stage of being turned over to the purchasers of water rights."³⁵⁹ A district, it was proposed, could be perfected by the settlers themselves without any great difficulty. Specifically, it noted: "After the district has been organized, arrangements can be made with the Central Oregon Irrigation Company

³⁵¹ Oregon Cooperative Work, U.S. Department of the Interior, Reclamation Service, *Deschutes River Projects, Bulletin No. 1*, (Washington: Government Printing Office, 1914), 4. Irrigation information for the two canals is aggregated.

³⁵² Dubuis, John, Field Inspector, *Report to Desert Land Board on Central Oregon Project*, (Salem: State Printing Department, 1915), 9, 18. Report submitted for publishing on December 1, 1914. Irrigable acres see p. 9. Of the total irrigable acres in 1914, under the Central Oregon Canal, 25,573 acres were sold, or 69%, suggesting the Pilot Butte Canal system was more successful in creating farms. The Central Oregon Canal had 44.15 miles of main canal and 187.51 miles of laterals.

³⁵³ *Ibid*, 58.

³⁵⁴ Federal Power Commission, *Report to the Federal Power Commission on Uses of the Deschutes River, Oregon*, (Washington: Printing Office, 1922), 72. There were 27,208 acres sold under the Central Oregon Canal system and 9,170 acres unsold.

³⁵⁵ Polk's Deschutes County Directory 1924-25, 40.

³⁵⁶ Cramb, L.K., *The Irrigation Situation In Central Oregon: A Proposal that the Federal Government Provide Storage*, (Bend: Bend Chamber of Commerce, October 15, 1931), sec. I, 18.

³⁵⁷ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 21, 1931), n.p. These figures include both Pilot Butte and Central Oregon canals.

³⁵⁸ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 3, 1931), n.p. On October 27, 1915, Olaf Laugaard, a well-respected irrigation engineer, proposed that the Central Oregon Irrigation settlers form a district. He wrote to Oregon Governor Withycombe (1915-1919) for whom he had consulted on irrigation matters. His suggestion, therefore, was regarded as worthy of consideration. It was Laugaard's view that all the land in private ownership, Carey Act lands, homesteads, tracts under the Pilot Butte and Central Oregon canals, as well as some other lands should be included within the limits of an irrigation district.

³⁵⁹ Teele, Ray Palmer, M.A., *Irrigation in the United States*, (New York: D. Appleton, 1915), 200.

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to acquire all its water rights, construction works, contracts with the State, and all the liens on unsold reclaimed lands within the limits of the Pilot Butte and Central Oregon Canals. It is to the best interests of all those who now own land under the system and who have acquired water rights there to formulate some feasible plan of reorganization. It is also evident that the Central Oregon Irrigation Company has certain rights which cannot be eliminated or overlooked. It would seem also that the best interests of the neighboring towns, as well as the settlers on the project would be best protected by the management of all matters pertaining to the project by the settlers and farmers themselves, as would be the case under the district idea."³⁶⁰

A date for the vote to form an irrigation district was set by the Desert Land Board. The vote was in favor of forming a district to take over and operate the irrigation system in lieu of a Water Users Association, as had been provided for in the company's contract with the State of June 17, 1907.³⁶¹ Following the settlers' formation of the district, various issues ensued with the irrigation company. Ending a long engagement between the settlers and the company, Judge John McCourt, Multnomah County Circuit Court, Portland handed down a decree. The effect of the Final Decree, known as the Dietrich Decree, was to turn over the ownership and operation of the irrigation system to the settlers organized as the Central Oregon Irrigation District (COID). It transferred water rights, irrigation canals, and other assets roughly valued at \$3,000,000³⁶² to the Central Oregon Irrigation District (COID). The settlers who had water rights had become a district. The 20 years of the project as a commercial enterprise under the Carey Act came to an end.

THE CENTRAL OREGON CANAL SERVES THE COMMUNITY OF ALFALFA

The Central Oregon Canal was integral to the settlement and growth of the Alfalfa Community. According to the Deschutes County Clerk's records, the first deeds in the sections around T17S, R 14E, Section 23 were recorded the year that the canal construction began, in 1905. Alfalfa is a small farming community in Deschutes County. It is located about 15 miles east of Bend and on the northern edge of the Oregon Badlands Wilderness Area. It is about halfway between Bend and Prineville. (See Figure 1.) Alfalfa was named for the alfalfa forage crop commonly grown in the area. Irrigation water arrived in 1908 and settlement came with it. The Alfalfa post office was established on January 29, 1912. The Alfalfa community and agricultural area is known as an irrigated oasis in the desert. The community is surrounded by dry scrub lands that are primarily in

³⁶⁰ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 3, 1931), n.p.;

³⁶¹ Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 10, 1931), n.p. The vote was on December 17, 1917. The contract with the State stipulated that the system must be turned over to a water users' association within five years of completion of construction. Approval of the newly formed Central Oregon Irrigation District was formally given by the Desert Land Board on February 26, 1918; "Change In D. I. & P. Co.," (*The Bend Bulletin*, March 15, 1907), 1. In March, 1907, Ohio owners had disposed of their interests in the D. I. & P. Co. to other owners who then owed all the stock. Soon thereafter a new Agreement was signed between the State and the owners of the irrigation company who were J. Edwin Sawhill and John Steidl of the Deschutes Country, and Edward A. Baldwin, Frederick S. Stanley and Jesse Stearns of Portland. Johnston and Turney were among the Ohio sellers; "The Deschutes Irrigation & Power Co. to State Land Board, The Amended and Supplemental Agreement," [Filed] August 7, 1908, vol. 5, 150-67. Under the date of June 7, 1907, a new Agreement (contract) was entered into between the D. I. & P. Co. and the State Land Board embracing the remainder of the land in Segregation List No 6, not under contract with the settlers, and the land in Segregation List No. 19, comprising some 56,000 acres gross, and lying in the bend of the 'horseshoe' formed by the Pilot Butte and Central Oregon canals. (Segregation List No. 19 was the C.C. Hutchinson's Oregon Irrigation Company segregation that the D. I. & P. Co. had acquired in the 1904 buyout.)

³⁶² Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 20, 1931), n.p. Legally, the case was "Dietrich vs. the Central Oregon Irrigation Company"; Brogan, Phil F., "The Watering of the Wilderness," (*The Bend Bulletin*, March 21, 1931), n.p. The statement issued by the district board of directors, who were John A. Riggs, C.H. Hardy and J.G. McGuffie, said, "On July 9, 1921, a decree was entered in the circuit court of Multnomah County, Oregon, in the district's suit against the Central Oregon Irrigation Company, commanding the company to turn the irrigation system over to the settlers on the first day of August 1921. By this decree the district and the holders of contracts upon the segregation receive a prior right for water for the amount provided in the decree over any rights of the company, and the relative rights of the company and the district are very clearly established." Officially transferring to the Central Oregon Irrigation District, the title to the water rights and system of the Central Oregon Irrigation Company, the company's deed to the settlers was received in Redmond on the morning of August 1, 1921. The transfer of the management of the company to the district did not involve any difficulties, for at the special meeting of the district directors in Redmond on August 2nd George W. Kanoff, superintendent for the company, was secured as manager of the new district; "C.O.I. President Takes Bride," (*The Redmond Spokesman*, September 23, 1921), 1. Frederick S. Stanley was president of the irrigation company at this time.

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county, state or federal ownership. (See Figure 22.) Cattle and sheep ranches and stables for horses are common there. Parcels were generally 40 acres, but by 1918, the Johnson Ranch was 1000 acres.³⁶³

The first one-room school, called the Guerin School, was constructed in 1908. Steve Lent, Crook County historian, wrote, "The completion of the Central Oregon Irrigation Canal opened up the area to major irrigated farming. Prior to the arrival of irrigation, the plains were dryland farmed and homesteads were scattered across the landscape. The community region continues to be a highly productive farming and ranching zone."³⁶⁴ Zell Pond, named for Benjamin F. Zell, a settler who was murdered by a farmhand, and Reynolds Pond, named for William H. Reynolds, a settler from Iowa, are fed by the 'I' Lateral of the Central Oregon Canal, and are popular local recreational areas. Shumway Lake is served by the 'J' Lateral and is now part of Brasada Ranch Resort and is north of Alfalfa.³⁶⁵



A man works on an evaporation pond and weir next to a lateral and irrigated field on the Central Oregon Canal near Alfalfa³⁶⁵

THE CENTRAL OREGON CANAL SERVES THE COMMUNITY OF POWELL BUTTE

Powell Butte is an unincorporated ranching community in Crook County with a population of 1,768. It is adjacent to Prineville, which was platted in 1877, and is the Crook County seat and the main shopping and governmental center for Powell Butte. The Powell Butte community is centered around T16S, R14E, Section 23, at the base of Powell Buttes. Powell Butte is located a half hour's drive northeast of Bend, nine miles southwest of Prineville and eight miles east of Redmond. The post office at Powell Butte was established on March 12, 1909. The area was dry farmed prior to 1908 and water had to be hauled from springs near the base of Powell Buttes for domestic use, orchards and livestock. The first school there was LaFollette School, established in 1893.

The irrigation companies did not establish the community of Powell Butte. Settlement in Powell Butte began twenty years previously, in the 1880s, because of its proximity to the Crook County seat in Prineville and partly because the area has deeper soil and less rock than other areas. The Central Oregon Project facilitated widespread irrigation of crops and attracted more people to the community. Some of the land in Segregation List #6 was in the Powell Butte area and the irrigation companies were required to provide water to the purchasers of the land they sold. Providing enough water in the canal and laterals to reach settlers at the end of the line proved to be exceedingly expensive and challenging. In August 1905, the original shared flume at the south diversion point had been enlarged again and could convey 650 cubic feet per second for both the Pilot Butte Canal and the Central Oregon Canal. It was figured that it took one cubic foot per second for each 160 acres to be irrigated. The first six miles of the Central Oregon Canal were constructed at the time. It was thought that there would be enough water in the Central Oregon Canal system to serve 96,000 acres, including Alfalfa and Powell Butte. But, there were concerns about the capacity at the original intake at the river and the

³⁶³ Lent, Steve, *Central Oregon Place Names*, Volume III, Deschutes County, 1, 2.

³⁶⁴ *ibid.*

³⁶⁵ Undated photo in Bowman Museum Collection, Prineville, Oregon.

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City of Bend was pressuring the D. I. & P. Co. to move the intake to the north side of town so that more water would flow through town during irrigation season. The project's chief engineer, Redfield, thought he had found a solution to both problems by moving the intake for the Pilot Butte Canal and separating the two systems.

In September 1907, surveyors were north of Bend locating the best place for the proposed North Dam and diversion point. The dam would be 39' tall and 313' wide. Water would be delivered to the Pilot Butte Canal by a proposed 1.41-mile-long North Canal. Redfield's plan was to disconnect the Pilot Butte Canal from the eight miles of canal located between the original diversion point and the eastern end of the new North Canal. As conceived that year, the dam would also divert water for the Powell Butte area and it would be conveyed by a new 28-mile canal that would run northeast to Powell Butte, bypassing the Central Oregon Canal entirely. But, his idea was found to be too expensive, and it was decided to water Powell Butte with increased flows in the Central Oregon Canal, when the Pilot Butte Canal had its own diversion point at the North Dam. The dam and the North Canal were completed for \$220,000 and connected to the Pilot Butte Canal in 1912.

Work on the Central Oregon Canal with large crews of men and horse teams continued while Redfield planned the new dam and connecting canal. Teams completed the canal to Alfalfa in 1907. In the fall of 1907, the crews were north of Alfalfa in the old Dry River bed. Plans were to build a large flume and a stave pipe to cross the Dry River north of Alfalfa. A camp composed of 35 men and 18 horse teams installed the trestle and redwood pipe. The parts for the pipe were made to order to Redfield's specifications by the Douglas Fir National Pipe Company of Olympia, Washington. The pipe was 1,620' long and 56" in diameter.³⁶⁶ The canal and pipe carried enough water to irrigate 12,000 acres. The trestle and pipe were completed in January 1908 for a total cost of \$10,000.



Ca. 1908 photo of the dry terrain at Powell Butte with water flowing in the Central Oregon Canal.³⁶⁷

While the structure was being constructed, crews were also working on the canal north of the siphon to Powell Butte. When the siphon was completed, the water was emptied from the pipe into an open irrigation canal 16' wide and 4' deep. During the 1908 irrigation season, water was flowing in the Central Oregon Canal for 45 miles across the high desert, from the Deschutes River to Powell Buttes. Lateral construction continued, and the system was enlarged in some locations through 1914. By 1908 the main canal was completed.

Little Houston Lake and Houston Lake are about four miles north of Powell Butte and five miles west of Prineville. The 1908 irrigation ditches filled an old lakebed that was dry most of the year, creating an extensive

³⁶⁶ *Crook County Journal*, Prineville, OR, July 14, 1910, 1.

³⁶⁷ Photo in Bowman Museum Collection, Prineville, Oregon.

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wetland. The lakes are named for Sallie and John Thomas 'Tom' Houston, who came west from North Carolina in 1885. He was a sheep and cattle rancher and allowed friends to hunt ducks at his lakes.³⁶⁸

Crook County historian Steve Lent wrote, "Powell Butte has developed into one of the premier farming areas of Central Oregon, with mint, hay, and potatoes being the main crops."³⁶⁹ (See Figures 1 and 23.)

SETTLEMENT AND FARMING IN THE NOMINATED CENTRAL OREGON CANAL HISTORIC DISTRICT

The historic district is just south of Bear Creek Road and is between Ward Road on the west and Gosney Road on the east. Bear Creek Road was an old wagon road that was the main arterial road connecting Farewell Bend (the name of the community called Bend before it was platted in 1904 and incorporated in 1905) to the then county seat, Prineville, and the Bear Creek region of Crook County. It was the only through-road east of Farewell Bend at the time that the Central Oregon Project was initiated.³⁷⁰ Gosney Road was constructed in 1920 by Deschutes County and named for property owner Glen R. Gosney, who petitioned for the road. Ward Road is named for Arthur Ward, another property owner who petitioned for the road in 1921.³⁷¹ The 1928 irrigation maps show bridges over the Central Oregon Canal at Ward Road and Gosney Road. (See Figures 11, 12.) Access to the farms was good and Bend was only 5 miles away when the canal was planned. Due to the phenomenal city growth, it was only 1.5 to 2.0 miles away during the historic period.

Weekly, the local *Bend Bulletin* newspaper reported on a few visitors staying in hotels or looking for land. A typical article would be like the following: May 5, 1909, page 5, "Phillip C. Burt of Battle Creek Michigan, has been spending the past week in Bend. Mr. Burt is looking over the section with a view to investing in land.

Settlers in the historic district included five women and people from Austria, Australia, Yugoslavia, Norway, England, and at least eight states. Typical of the thousands of settlers in the area, a minority of settlers along the canal in the district, such as dairy farmers Philip Burt and the Bradetich Brothers, became long-term, successful farmers. Most settlers supplemented the farm income by holding other occupations, because productivity of the land was marginal. Others were not successful farming in the rocky, volcanic soil in the high desert with its short growing season and harsh winters and sold their land. Others lost their land through COID, tax or mortgage foreclosures, often in the 1920s and 1930s. One settler in the district rebought their land when finances improved.

Water Rights on Parcels around the Historic District

The main canal in the Central Oregon Canal Historic District (Ward Road – Gosney Road Segment) passes through four Sections: T18S, R12 E, Section 1; T18S, R13 E, Section 5; T18S, R13 E, Section 6; and T18S, R13 E, Section 8. (See Figure 3.) Each section contains approximately a square mile, 640 acres of land. Some of the land was offered for sale with appurtenant water rights. (See Figures 11 and 12.) The section with the highest percentage of irrigation rights was in T18S, R12 E, Section 1: 59%. T18S, R13 E, Section 6 had 29% of the land with appurtenant irrigation rights. T18S, R13 E, Section 5 had only 12% of its land with irrigation rights. T18S, R13 E, Section 8 offered less than 1% of its land with irrigation rights. All the irrigation rights on the downhill (north) side of the canal are for water delivered by the Central Oregon Canal. Some of the water on the high side (south) is delivered by the Arnold Canal in the Arnold Irrigation District.

³⁶⁸ Lent, Steve, *Central Oregon Place Names*, Volume 1, Crook County, 157.

³⁶⁹ Lent, Steve, *Central Oregon Place Names*, Volume 1, Crook County, 251-254.

³⁷⁰ Lent, Steve, *Central Oregon Place Names* Volume III Deschutes County, 12, 13.

³⁷¹ Lent, Steve, *Central Oregon Place Names* Volume III Deschutes County, 101, 300.

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| Location by Section | Acres with Water Rights | Percent of Land with <u>appurtenant</u> Water Rights |
|------------------------|-------------------------|--|
| T18S, R12 E, Section 1 | 378.0 | 59% |
| T18S, R13 E, Section 5 | 76.5 | 12% |
| T18S, R13 E, Section 6 | 190.5 | 29% |
| T18S, R13 E, Section 8 | 57.3 | 0.8% |

Table 2.
Acres of Land with Water Rights in Vicinity of Historic District

Settlers Purchase Land in the Historic District

The point of developing the irrigation system was to make a profit for the investors by selling reclaimed land to settlers under the Carey Act contract with the State. If all went well, and it did for the most part, the income from property sales would exceed the expenditures needed to construct the dam and canals, build urban infrastructure, run the experimental farm, hold local promotional events, and promote the project nationally. To be financially successful and meet the terms of the contract with the State of Oregon, the companies had to attract settlers and provide irrigation water to the highest point on their land. The success of the settlers was important to balance the equation.

Access to the area from Prineville and Bend was on Bear Creek Road and was very good, and its location was close to Bend. But, due to the hills, slopes, and rock, the land south of Bear Creek Road between Ward Road and Gosney Road was not the best in the area and was settled after better land was taken up. The best land was purchased in 40 to 160-acre parcels, while the canal was under construction. Poorer land was settled last or not at all. Land on flat terrain with water rights and sparse, loose rock and deeper soils was the most valuable. Taller juniper trees and denser vegetation often signaled deeper soil but created more work to clear the land.

Figures 14a., 14b., and 14c. illustrate the size and location of the original parcels and original owners (settlers) in the four sections crossed by the Central Oregon Canal Historic District (Ward Road-Gosney Road Segment). Of the 640 acres in T18S, R12 E, Section 1, with 59% of the land having water rights, all the deeds of sales were recorded after COID was formed, between 1921 and 1954. Original owners included Dragan Wuyo Mirich with 280 acres, George and John Bradetich with 160 acres, Lilla I. Ford with 120 acres, and Mike Dragosavac with 80 acres.

Of the 640 acres in T18S, R13 E, Section 5, with only 12% of the land with water rights, a deed to the 120 unsold acres in Segregation List # 6 was returned in 1937 by Oregon State to the federal government. The remainder of the land was sold between 1913 and 1922. Original owners included Dora McNaught, R. A. Puett, John O'Donnell, and Theodore E. Olson, each with 80- acre parcels; and William P. Erickson and partner John Pioniemi, Oscar J. Erickson, Esther Cockerhan, Charles Durand, and Ivan R. Knotts, each with 40-acre parcels.

Of the 640 acres in T18S, R13 E, Section 6, with 29% of the land with water rights, 120 acres were returned in 1937 by Oregon State to the federal government. The remainder of the land was sold between 1910 and 1951. Dragon Wuyo Mirich bought 160 acres. Philip C. Burt bought 160 acres. J. S. Smythe bought 80 acres. W. F. McNaught, Elizabeth Dixon, and Felix G. Allen each bought 40-acre parcels.

Of the 640 acres in T18S, R13 E, Section 8, with 0.8% of the acreage with water rights, 160 acres were returned in 1937 by Oregon State to the federal government. The remainder of the land was sold to private parties between 1910 and 1924. Quinton W. Hungate and Ada Hanson Stowell each bought 160-acre parcels. Ben Alsop bought 120 acres. Norman Wygand bought 40 acres.

Of the 24 owners in the four sections, Dragan Wuyo Mirich owned the most land, with a total of 440 acres. When Lilla I. Ford sold her 20 acres to John Bradetich in 1927, the Bradetich others then owned 380 acres.

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Five women (20% of the owners) were original settlers of the parcels. Esther Cockerham, Beth Dixon, Lilla Ford, Dora McNaught, and Ada Hanson Stowell owned a total of 440 acres.

To determine the effect of the promotional efforts, using the federal census for 1900, 1910, and 1920, it was determined where many of the owners were living before they settled on the land in the historic district. They came from many countries and states. Some examples are Mike Dragosavac from Austria, Oscar Erickson from Norway, George and John Bradetich from Austria, Esther Cockerham from England, Ada Hanson Stowell from Australia, Dragan Mirich from Yugoslavia, Beth Dixon from Pennsylvania, William F. McNaught from Iowa, Dora McNaught from Washington, R. A. Puett from North Carolina, Ben Alsup from Iowa, Amy and Philip Burt from Illinois, Ivan Knots born in Oregon, and John S. Smythe from Ohio.

Many of the settlers were farmers, but many held other occupations. Dragan Mirich was a well-known stone mason in Bend, who built the railroad overpass across Third Street in Bend, the tunnels between Reid School, Bend High School and the Amateur Athletic Club for the shared steam heating system, the 1930 rock Bradetich house and the stone milk house in 1935, and other stone buildings in Bend. Ben Alsup was a civil engineer who designed roads. Ivan Knots was a lumber handler in a saw mill.

After working in a Portland lumber camp, John and George Bradetich worked on the vexed Tumalo Project dam. Then they worked in 1916 at the Shevlin-Hixon Company Lumber Mill. In 1919, they purchased their first 160-acre parcel in the historic district. They grew potatoes and started the first Grade A dairy in Central Oregon with cows they purchased from a dairy in Weiser, Idaho. They also raised swine.³⁷²



1932 photo of the 1926 Bradetich dairy barn, pastures and the 8-bedroom 1930 house built by Dragan Mirich.³⁷³

The State Land Board had established the rule that within three years from the date of filing on the land claims, the settlers were required to cultivate 1/8 of the irrigable acres and live on the land for at least 90 days. Or, the settler could choose to cultivate 1/4 of the irrigable acres, build a house containing not less than 200 square feet of floor space and reside on the land for a period of not less than seven days.³⁷⁴

Crops in the Historic District

In addition to the Bradetich Dairy, some of the other settlers were successful. The owners who were the most successful and stayed the longest had land with appurtenant water rights. Others grew dry crops, such as wheat and rye, on un-irrigated land. Irrigated crops included orchard hay, apple trees, potatoes, and alfalfa. Many of the families raised milk cows, swine and chickens and sold milk, butter, meat, and eggs to stores in Bend and to other settlers. Most grew half-acre vegetable gardens for personal use. Raising honeybees was popular and honey was sold. Settlers helped one another in many ways and shared equipment and livestock.

³⁷² Deschutes County Historical Society, A History of the Deschutes Country in Oregon, 147-149.

³⁷³ Photo is in the Patricia Kliever personal collection, Bend, Oregon. Photo looking south toward canal.

³⁷⁴ Hall, Michael, Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, A Historic Context, 27.

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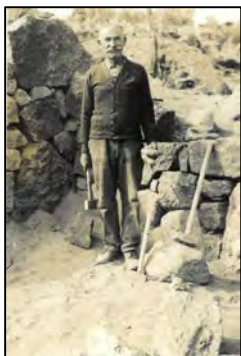
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Subsequent Owners T18S, R12 E, Section 1

In 1935, five parties owned land in T18S, R12 E, Section 1: George and John Bradetich with the 320 acres in the west half where their dairy and house were located, Dragan Mirich with 200 acres, Livola Barnes with 40 acres, Mike and Denny Vadick with 40 acres, and the US government with 40 acres. (See Figure 15.)

In 1944, the land ownership in that section stayed the same as it was in 1935. (See Figure 16.)

In 1972, there were no original owners in this section. Twelve owners owned smaller parcels and Arrowhead Acres had been platted into a rural subdivision. C. W. Rickabaugh was the largest landowner and had purchased Mirich's 200 acres. Charles Boardman had purchased part of the Bradetich land along with P. Dinsmore, Ralph W. Boese, James Turner, Pete Lorcher, and Jerome A. Scott. John L. Williams, Hobart Starr, the Unitarian Universalist Church of Portland, and Thomas Wallace owned land on the eastern half of the section. (See Figure 17.)



Undated photo of Dragan Mirich, the owner of the most land in the historic district.³⁷⁵

Subsequent Owners T18S, R13 E, Section 5

In 1935, in T18S, R13 E, Section 5, three original owners still owned land. Charles Durand owned 40 acres, and Margaret H. O'Donnell (widow of John O'Donnell) owned 80 acres. Robert A. Puett owned 120 acres. Other owners included the US government with 120 acres; the Central Oregon Irrigation District (COID) with 120 acres, L. Aulman with 80 acres, G. H. Hart with 40 acres, and Bert Torkelson with 40 acres. (See Figure 18.) Richard Torkelson told of his father Bert Torkelson, who owned land in T18S, R13E, Section 5, giving a good milk cow to a neighboring family that was not making enough money from the land to feed their children.³⁷⁶ Torkelson Road is named for his family.

In 1944, the ownership in this section had changed somewhat. The Great Depression was hard on the settlers. The County had taken ownership of the O'Donnell land. The Federal Land Bank had taken over the Puett Ranch. Durand's land was taken over by COID. COID owned 160 acres in this section. Hart had sold ten acres to G. E. Lepps. (See Figure 19.)

By 1972, in Section 5, the owners were all different. Wallace Crawford owned 360 acres. Deschutes County owned 120 acres. Clarence Cavin owned 45 acres and W. A. Van Hise owned 75 acres. Ben Sebrill owned 40 acres. (See Figure 20.)

Subsequent Owners T18S, R13 E, Section 6

In 1935 in T18S, R13 E, Section 6, Phillip Clifford Burt was the only original owner who still owned land, 40 acres. His wife, Amy A. Burt owned 40 acres. The United States owned more acres, 280 acres. The County

³⁷⁵ Undated Deschutes Historical Society Photo.

³⁷⁶ Interview with Richard Torkelson, June 10, 2017.

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owned 80 acres. George Rastovich of Yugoslavia owned 120 acres. F. Wheeler and Paul S. Hackett each owned 40 acres. (See Figure 18.) Ida and Paul Hackett raised about 200 turkeys for a time on their 40 acres.³⁷⁷

In 1944, Amy A. Burt owned 80 acres. George Rastovich owned 120 acres. The United States owned 240 acres and the COID owned 80 acres. The State owned 40 acres. Monie Zink and Laura E. Newlands each owned a 40-acre parcel. (See Figure 19.)

By 1972, Danny Rastovich owned 120 acres. C. W. Rickabaugh owned 160 acres. The US owned 120 acres. COID owned 40 acres. H. A. Starr, E. R. Fraser, Eldon J. White, and Hallie E. Hamilton each owned 40-acre parcels. J. F. Schilling owned 30 acres and Greg Hunt owned 10 acres. (See Figure 20.)



The 100-year old Amy and Phillip Burt Barn. The canal is about 150 yards to the south (right).³⁷⁸

The Burts were successful farmers, owning the land until Amy's death in 1964 and Phillip's death in 1966. Their land had water rights for all but the portion near Bear Creek Road that was covered by rock outcroppings. Phillip Burt planted apple trees and raised cows. An interesting article on page one of the April 30, 1910 *The Bend Bulletin* tells about the need to keep explosives used to clear rocks and stumps out of the reach of cows. "Escapes Horrible Disaster, Non-Explosive Curious Cow Tries Dynamite Diet Without Harm". "Last Sabbath morn an appalling accident almost disturbed the serenity of the home of Mr. and Mrs. Phillip Burt, settlers on a 'forty' five miles east of town. 'Tudy' their prize cow, in a fit of excessive curiosity, mistook a box of dynamite for a new breakfast food. Laboring under the not unnatural delusion, the bovine investigator started to assimilate the contents of said box at the rate of five sticks a minute or thereabout. Just then, however, the danger fraught was ended by the appearance of the cow's owner; it is said, however, that in view of the character of Tudy's repast he was exceedingly gentle in his remonstrance with her, failing entirely to apply the stick he had brought for the purpose."

Another of Burt's cows made news all over the state including in newspapers in Portland, Heppner and Independence, Oregon. An article on December 12, 1919 in the *Independence Enterprise* said, "Bend. One of the most famous dairy cows in the state changed hands Wednesday when Pricilla, heavy milk producing Holstein, was sold by Phillip Burt to D. A. Slaughter of Deschutes. Pricilla produced 26,000 pounds of milk last year, has a one-day record of 106 pounds of milk and a 15-day record of 63 pounds of butter fat."

Subsequent Owners T18S, R13 E, Section 8

Of the 640 acres in T18S, R13 E, Section 8, in 1935, the section with less than 1% of the land awarded water rights, no private parties owned any land in 1935. Deschutes County owned 440 acres. The US owned 160 acres. The Central Oregon Irrigation Company had foreclosed on Wygand's 40 acres and owned them. (See Figure 18.) As described in Section 7, Wygand's 40 acres were sold by the company to Sidney S. Stearns, a well-known cattle rancher in 1920, through a Central Oregon Irrigation Company mortgage lien foreclosure

³⁷⁷ His wife Ida Hackett was from Russia. Interview with their grandson, Paul Hackett in Bend, September 2017.

³⁷⁸ Photo by Patricia Kliewer, November 1, 2017, looking northwest.

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proceeding. He was the highest bidder of \$2,673.58 at an auction at the courthouse door. Stearns widow, Francis Stearns, sold the 40 acres of scrub land to the COI District in 1932 for the COID reservoir.

In 1944, Section 8 had one private owner. R. D. and Ada Stowell had purchased 160 acres from the County. She had been an original settler in this section, lost her land, and re-purchased it. The County owned 280 acres. The US owned 160 acres. COID owned 40 acres. (See Figure 19.)

By 1972, the US owned 120 acres while all the remaining acreage had been sold to private parties. E. R. Perkins and others owned 210 acres. Russell Bryant owned 120 acres. Loren B. Holzouser and others owned 100 acres. COID still owned 40 acres. A. D. Smith owned about 20 acres and James Crowell owned about 30 acres. (See Figure 20.)³⁷⁹

Farming in the rocky sections of the High Desert was difficult and nearly impossible without irrigation water. At each point in time, from 1905 to 1972, increasingly more land in the district was in government ownership and was reverting to scrub land. Even successful settlers, such as Phillip Burt, had sold most of his unirrigated land prior to 1944, and was farming part of a 40-acre parcel near Bear Creek Road.

Today, the four 640-acre sections contain some irrigated farms and a large amount of land that was never cleared or cultivated or that has reverted from dry farming to native vegetation, including a 79.60-acre parcel owned by the Bend Park & Recreation District and several parcels owned by COID. Most of Bradetich's land is now subdivided into rural residential lots. Some of Mirich's land is being farmed by the Suzanne and Gary Grund family (51.09 acres) and Tony Licitra (58.96 acres). Looking at the aerial photo of current conditions, it is apparent that the entire western third of the land around the Central Oregon Canal in the historic district is now subdivided into rural residential lots of primarily 1 to 3-acres, including some hobby farms with personal livestock and small irrigated pastures. The middle third of the CO Canal in the historic district has entirely scrub land south of the canal and hobby farms and scrub land on the north side of the canal. The eastern third of the CO Canal in the historic district has entirely scrub lands on the south and only one irrigated farm to the north, at the corner with Gosney Road. (See Figure 2.)

Conclusion of Settlement in the Historic District

Due to the thin topsoil and rock in the district being undesirable for farming, no settlers purchased land along the canal in the district when it was being constructed. The presence of the canal did attract settlers to some, but not all, of the land along the canal in the historic district, because most of it did not have water rights. Rural residential development on 1 to 3-acre lots with water rights occurred between Ward Road and the Bear Creek Ranch Bridge, in 1/4th of the district, primarily between 1965 and 1975. However, most of the historic setting, with its farms, rolling hills, rock outcroppings, and native juniper and sagebrush vegetation that was present in 1921 near and alongside the canal on the eastern 3/4ths of the district, remains. The historic district uniquely demonstrates the power of the canal and irrigation water to attract settlers, and the progression of settlement from large to smaller parcels over the past 100 years. The largest parcels along the district's length have never been irrigated or developed, and historic vegetation was never cleared. The nominated stretch uniquely displays both the historic setting at the time the canal was constructed and the use of the irrigation water for beneficial uses and agriculture. The small irrigated hobby farms and larger commercial farms today with irrigation ponds and irrigated pasture for livestock represent the purpose of the canal: to attract settlers and farmers to Deschutes County by supplying irrigation water to the arid land. The area is accessible to the public, especially along the 80-acre parcel owned by Bend Park & Recreation District. Its interpretation can be achieved in an attractive, well-organized fashion without crowding or overwhelming the resource itself.

THE CENTRAL OREGON CANAL DELIVERS WATER TO MANY LAKES AND PONDS

In addition to the hundreds of irrigation water storage ponds on private property, a unique feature of this canal is the number of large, engineered reservoirs and recreational lakes and ponds that are filled by the water

Commented [HC50]: Discussion by large outside the historic district - not really pertinent to this nomination

³⁷⁹ All deeds are from the Deschutes County Clerk, Bend, OR

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diverted from the Deschutes River and conveyed by the Central Oregon Canal. The 6-acre Mayfield Pond is in the BLM Mayfield Pond Recreational Area, four miles northeast of the historic district and north of Alfalfa Market Road in T 17 S, R 13 W, Section 23. Camping and fishing are popular activities there. Just 1 mile south of the Alfalfa Store, on the 'I' Lateral, is the 12-acre Reynolds Pond on BLM land in T17S, R14 E, Section 35. A 0.75-mile pedestrian trail circles the shoreline. Non-motorized boats and fishing are the main activities there.

Further east on the 'I' Lateral is Zell Pond. Zell Pond is 7.7 acres in size and is partly on BLM and partly on private land in T17S, R14 E, Section 25. An above-grade-piped stretch of the 'I' Lateral of the Central Oregon Canal forms a berm to hold water in Zell Pond. Near the Dry River was the 11.7-acre Shumway Lake in T16S, R14E, Sections 28 and 33, on private property. It has been re-created for the Brasada Ranch Resort. Near the terminus of the canal between O'Neil Hwy. and Hwy. 126, and northeast of Powell Butte, is Houston Lake (sometimes spelled Huston Lake), located on private property. At an elevation of 3,022, just south of a slough, Houston Lake and Little Houston Lake are natural lakes that occupy low points in the area. They were dry most of the year, until irrigation ditches supplied water to them in 1914. Other lakes filled by water from the canal are unnamed. The ponds and lakes on BLM land were created to provide wildlife habitat for fish and wildlife as well as recreational opportunities for the public.³⁸⁰ The 'C' Lateral that begins in the historic district runs north of Highway 20 and Alfalfa Market Road and ends in another large, unnamed pond and wetlands at Terry Drive, near Stenkamp Road, near the Bend Airport.



The 'D' Lateral, just east of the historic district, conveys water to the 6-acre Mayfield Pond at the Mayfield Pond Recreation Area north of Alfalfa Market Road near Bend. Photo taken looking east.³⁸¹



Reynolds Pond, a public recreational pond covering 12 acres on land managed by the BLM, is filled with water from the 'I' Lateral of the Central Oregon Canal. Photographer looking east.³⁸²

³⁸⁰ Interview with BLM staff at Prineville BLM office, May 19, 2017.

³⁸¹ Patricia Kliewer photograph, May 21, 2017.

³⁸² Patricia Kliewer photo, taken on April 4, 2017.

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Zell Pond is 7.7 acres and is partly on BLM property near Alfalfa. It is also filled from the 'I' Lateral. Photographer looking southeast toward Bear Paw Butte.³⁸³



Shumway Lake, now on Brasada Ranch Resort, is filled with water from the 'J' Lateral of the Central Oregon Canal. Photographer looking east.³⁸⁴



Ditch from the Central Oregon Canal enters the private Little Houston Lake on Houston Lake Road near Powell Butte. Photographer looking south³⁸⁵

³⁸³ Patricia Kliewer Photograph, August 16, 2016.

³⁸⁴ John Kohlmoos Photograph, June 25, 2009.

³⁸⁵ ibid

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Water flows through a gate from the Central Oregon Canal to a cattle ranch, with Houston Lake in the background. Photographer looking southwest. ³⁸⁶

CONCLUSION OF CENTRAL OREGON PROJECT

In 1921, when the assets of the Central Oregon irrigation Company were transferred to the water users formed as the Central Oregon Irrigation District, the water rights, irrigation canals and other assets were valued at \$3 million. Between 1903 and 1921, approximately 600 miles of canals and laterals had been built for both the Pilot Butte and Central Oregon Canal systems. The North Canal Dam, the Pilot Butte Canal, the Central Oregon Canal and the North Canal had been completed. The irrigation companies had founded the towns of Bend, Redmond, and Deschutes (platted as Centrallo in 1911 along the railroad about half way between Bend and Redmond) and facilitated the rapid growth of Alfalfa and Powell Butte and rural Deschutes County, which was carved from Crook County in 1916. The irrigation system had transformed the appearance of the high plateau on the east side of the Deschutes River. The developer's connections resulted in James J. Hill completing the railroad from the Columbia River to Bend in October 1911. The arrival of the railroad, in turn, facilitated the development of the huge timber industry in Central Oregon and brought in settlers and goods and allowed a nationwide market for timber and agricultural products

In 1922, the Federal Power Commission summarized the accomplishment of providing irrigation to 57,089 acres of land in a report on the Central Oregon Project. By any standards, the Central Oregon Project was successful and has transformed the high desert plateau and brought settlement and agriculture to the towns that he founded and the surrounding area that likely exceeded Alexander Drake's 1900 vision.

Table 3
Irrigable Acres in 1922 under the Central Oregon Project by Canal System³⁸⁷

| IRRIGABLE ACRES BY CANAL SYSTEM, 1922 | | | |
|---------------------------------------|----------------------|------------------------|-----------------------|
| | SOLD IRRIGABLE ACRES | UNSOLD IRRIGABLE ACRES | TOTAL IRRIGABLE ACRES |
| Central Oregon Canal | 27,208 | 9,170 | 36,378 |
| North Canal/Pilot Butte Canal | 19,169 | 1,542 | 20,711 |
| TOTAL | 46,377 | 10,712 | 57,089 |

³⁸⁶ Patricia Kliever Photograph May 21, 2017.

³⁸⁷ Hall, Michael, Irrigation Development in Oregon's Upper Deschutes River Basin 1871-1957, A Historic Context Statement.,

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CHARACTER OF OTHER SEGMENTS OF THE CENTRAL OREGON CANAL

Commented [HC51]: Not really pertinent to this nomination

The historic district includes 3.4 miles of the 47-mile-long Central Oregon Canal. The historic district begins at mile 7.75. This portion of Section 7 compares the canal in the historic district to the other 43.5 miles of the main canal. As was stated previously, the Central Oregon Canal follows the highest trajectory possible in the natural terrain of the high desert plateau. It is about 80' wide and 4' deep in the Bend area and narrows and gets shallower as it delivers water to laterals, sub-laterals and ditches. The 'I' Lateral diverts nearly a fourth of the remaining flow of the main canal at the southern end of Alfalfa, after which the main canal is visibly smaller. It is 2' wide and 3" deep as it conveys water to the last pond and through black plastic pipe toward the Crooked River, its terminus. (See Figures 6, 7, 8, 13, 22 and 23.)

For the most part, the canal flows over a plateau that gradually slopes down 701' toward the northeast. However, it winds through low hills on the southwestern edge in the historic district and again on the north edge of the plateau when it flows downhill from Powell Buttes toward the Crooked River. As will be described more fully in Section 8, the first step in its construction was surveyors marking the route of the canal and the distribution system of laterals so that water could flow downhill by gravity from the main canal to the high points of each 40 to 160-acre parcel of land in Segregation List # 6 that would be sold to settlers by the project's promoters. The property owners were responsible for digging and maintaining ditches from the laterals to irrigate their land.^{388 389}

Most of the flumes and large ponds along the canal are indicated on the historic USGS Quadrangle maps. None of the original wooden flumes nor the Powell Butte Siphon remains a part of the main canal. Some wooden flumes remain on laterals and ditches, such as along Torkelson Road. The setting of the canal has changed dramatically over the last 100 years, which was its purpose: to attract settlement and agriculture to the arid west. Between 1904-1914, the canal was entirely located in rural lands, when it was constructed. Now, it traverses seven miles through a dense urban area within the city of Bend. Parcel sizes continue to drop from the historic 43-acre average to a 6-12-acre average today. Originally, the water was diverted from the river into a 1.5-mile long wooden flume that was supported by wooden trestles. Next, it flowed in an open canal and an occasional flume for most of its length to Alfalfa, where it flowed through the redwood pipe of the Powell Butte Siphon. From there to its end, it was open.

Today, the first 6,261 feet of the Central Oregon Canal are piped (where it was in a wooden flume). The non-historic pipe empties into a constrained and altered open canal with repaired native rock rip-rapped sloping sides and a rocky bed in an urban density housing development. That stretch is scheduled for piping. The canal flows under the four-lane Bend Parkway through a concrete underpass and enters the Bend commercial/retail area.



The 20-year old, four-lane Bend Parkway crosses over the Central Oregon Canal in Bend, just south of Reed Market Road. Photographer looking west.³⁹⁰

³⁸⁸ Energy Trust of Oregon, Inc. Open Solicitation, Juniper Ridge 3/27 MW Hydropower, January 23, 2008, page 1.

³⁸⁹ Google Earth 2014 web site.

³⁹⁰ Patricia Kliewer photo, October 23, 2015, after irrigation season.

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As it enters the Bend commercial district next to the Bend Parkway, the canal generally runs along the northern edge of a gentle slope, has a cut in the earth on the south side and a 7'-tall berm to hold the water in on the north side. The beds are nearly solid rock flows, and many rocky locations hold water year around. Generally being 40' to 80' wide and 2' to 8' deep, the canal flows through urban commercial, industrial, and residential subdivisions and is piped under urban roads and streets. Next, the canal winds through the commercial area along Third Street (US Business Hwy 97) in Bend, where it is wide and shallow. Motels back up to its banks, and shopping centers are beside it. The 'A' Lateral delivers water north for six miles to urban residences and commercial users, a trailer park, and an industrial park, and then turns to the northeast crossing the city limits and irrigates small hobby farms of ½ acre to 20 acres northeast of the city, in an area that is urbanizing. The 'A' lateral ends in two ponds near Butler Market Road and Hamehook Road.



The Fred Meyer Shopping Center at Third Street is on the south side of the Central Oregon Canal. The shallow canal bed is cut on the south side (right) and is bermed on the north side. Looking southeast.³⁹¹

Reed Market Road is a primary east-west road in Bend, running between the Deschutes River and 27th Street, near the eastern city limits. Reed Market Road parallels the canal though new three-story multi-family and two-story single-family residential subdivisions and an industrial park between Third Street and 15th Street. The canal is heavily constrained by the urban development and has been altered to facilitate roads and bridge construction.



Looking east, Reed Market Road parallels the shallow, rock-strewn canal. It is spanned by a 2015 bridge to the industrial park along American Lane.³⁹²

At the north end of the industrial park, the wide and shallow canal flows under the historic Union Pacific Railroad Bridge

³⁹¹ Patricia Kliever photo, October 23, 2015.

³⁹² *ibid*

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The Union Pacific Railroad tracks cross the canal west of 15th Street, between the industrial park an urban residential area of southeast Bend. The canal remains wide and shallow with crude, inconsistent rock scattered on the sides and a rocky bed.³⁹³

East of the railroad, a series of urban-density, single-family housing developments have surrounded the canal, and lots extend beneath it. A well-maintained 10'-12' wide graveled pedestrian trail was put in by the Bend Metro Park & Recreation District alongside the canal under an agreement with COID, and with the property owners' permission. The canal is surrounded by homes on 1/5 acre or smaller lots in the eastern portion of Bend. In this stretch, there are many concrete repairs and alterations to the canal embankments and bed. Locked green metal pipe gates operated by COID prevent other vehicles from driving on the path. There are many points where the canal was cut from nearly level terrain and there is no berm. Lawns and other residential landscaping extend to the edge of the water. The canal next passes through a large mobile home park on the west side of 27th Street.



Urban housing developments surround the altered shallow canal with no berms near Ferguson between 15th and 27th Streets. The graveled pedestrian trail follows the canal through the neighborhood.³⁹⁴

East of 27th Street, the canal is bordered by the graveled urban pedestrian trail and is walled on the north side of the trail with wooden privacy fences along the canal easement, installed by the developer of the modern, urban density residential subdivision. For the ½ mile between the urban subdivision and Ward Road, scrub land, uncultivated land and some residences on two-to-five-acre lots are scattered over the area. Most of the segment passes through scrub land of sagebrush and bitterbrush. The largest parcel west of Ward Road is the unirrigated 20 acres owned by the Eastern Cascades Model Railroad Club, which houses an extensive indoor model railroad system and a mile of outdoor track in 1:8 scale. Ridable electric, gas and steam trains run on the outdoor track, which is continuously being extended and improved for the club members. An open house each fall is a popular event, where adults and children wait in long lines to ride the trains repeatedly. The remaining rural residential lots in the area west of the district are under 5 acres, and most are not irrigated.

³⁹³ Patricia Kliever photo, October 23, 2015.

³⁹⁴ ibid

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One irrigation pond is in the area. Some business development in metal buildings is visible from the canal. Only two parcels in the area are irrigated and cultivated for hay production: a 5-acre parcel off Thunder Road and a 10-acre parcel at the end of Modoc Road. Neither is visible from the canal. A paved two-lane county road, Stevens Road, is adjacent to the canal. The canal bed in that area is composed of solid rock flows and blasted rock, and the sides are low and without berms or riprap. The canal is wide and shallow. When it reaches the Ward Road Bridge, the canal has dropped 100' since leaving the river.



East of 27th Street, the canal is bordered on the north by privacy fencing and a public pedestrian trail along an urban single-family residential development. The canal is wide and flat with no berms. Facing east.³⁹⁵

The historic district begins at the eastern edge of the Ward Road Bridge right-of-way, 0.75 miles east of the Bend city limits and continues for 3.4 miles through the low hills. It is deeper and has a berm on the downhill side, and often on both sides. It was described in detail previously. The canal winds through irrigated rural residential subdivisions, hobby farms with livestock and pasture, large commercial farms and ranches and public scrub lands. Parcels get progressively larger as the water flows east. Properties range in size from 1 to 80 acres. Twelve ditches fill over a dozen irrigation ponds and irrigate pastures and crops on both sides of the canal. The historic district uniquely portrays the progression of settlement in the county, from 40-160-acre parcels in the historic period, to 20-40-acre parcels in the 1940s and to the subdivisions with 1-5-to 3-acre parcels in the 1960s and 1970s. It also shows the results of applying irrigation water on arid farmable land and displays the scrub land with rock outcroppings that remains where land was not farmable and did not have or retain irrigation rights.

As the water flows under the Gosney Road Bridge, it enters a narrower 'U'-shaped stretch with a berm on the downhill side and a cut on the northern side, along the remainder of the hilly terrain. The bed has small rocks solidly covering it. No lava flows are apparent. The canal passes through large farms, scrub lands in public ownership, and 10-acre rural subdivisions, mostly without irrigation rights. It has an inconsistent cut on its south side with sparse rock scattered along the inside slope and a silted embankment covering any rip-rap on the north side. The ditch rider road continues on the north edge of the canal, with locked non-historic green metal pipe gates across it where it meets roads. About a quarter mile east of Gosney Road, one of the last wooden flumes bridged a difficult stretch of canal, but it has been removed and replaced with berms. The 'D' Lateral diverts water north in this area, delivering water north of Highway 20 and under the Alfalfa Market Road to the BLM's Mayfield Pond and Recreation Area. It then drops the last few feet down to the flat plateau near Gribbling Road at elevation 3600, where it transitions to long, straight, and more level, segments.

³⁹⁵ Patricia Kliewer photo, March 10, 2017.

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East of the Gosney Road Bridge as the “U” shaped canal leaves the historic district on the remainder of the sloped area.³⁹⁶ As it nears US Highway 20, it enters nearly flat terrain, straightens, widens and becomes shallower, with sparse rock rip-rap and lower berms on the downhill side.



Central Oregon Canal on flat terrain at its intersection with US Highway 20, between Harmony Lane and Gribbling Road. Photographer looking southwest.³⁹⁷

Where it reaches the flat plateau and crosses under US Highway 20, the elevation is 3551. The canal has dropped 207 feet since it began at the Deschutes River. North of US Highway 20, the land has fewer rock outcroppings and surface rock, but has more unirrigated large parcels of scrub land in public and private ownership. The canal begins a stretch of consistent width and depth for the next ten miles. The canal bed has less rock. Being shallower, the sides do not have much riprap. Most of the dry land has never been in private ownership, has native vegetation, and is not irrigated or cultivated. Scattered irrigated lands are close to the main roads and the main canal. As the ‘G’ and ‘H’ Laterals branch off, the canal gets smaller. In the agricultural area and cattle ranches southwest of Alfalfa, it is more consistent in shape and riprap is nearly nonexistent. Many private bridges to cattle ranches cross the canal.

³⁹⁶ Patricia Kliever photo, October 23, 2015.

³⁹⁷ Patricia Kliever photo, August 16, 2016.

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Water flows out of the main canal just west of Dodds Road to fill an unnamed reservoir with wetlands on scrub land. Photographer looking south.³⁹⁸

The canal crosses under Dodds Road at elevation 3434 and flows north along irrigated cattle and horse ranches with large irrigation ponds. At the northern end of the road, it turns east into dry public scrub land managed by the BLM near its intersection with Walker Road. The large 'I' Lateral splits off at elevation 3405 and significantly reduces the size of the main canal. The 'I' Lateral to southeastern Alfalfa parallels the canal for a distance, then continues to run east, while the main canal turns north. The 'I' Lateral fills many ponds and wetlands, including Reynolds Pond and Zell Pond, and provides water for hay ranches east and south of Alfalfa, irrigated by circular pivot sprinkler systems.



The 'I' Lateral branches off the main canal on public land near the intersection of Dodds Road and Walker Road, significantly reducing the flow in the main canal. Photographer looking south.³⁹⁹



The 'I' Lateral is on the south (right) and the main Central Oregon Canal is on the north, left. Looking east.⁴⁰⁰

³⁹⁸ ibid

³⁹⁹ Patricia Kliever photo, August 17, 2016.

⁴⁰⁰ ibid

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One of a series of three large unnamed ponds with wetlands next to the canal southwest of Alfalfa. The community of Alfalfa is on the far side of the pond and the Powel Buttes are in the distance, looking north.⁴⁰¹

The narrower main Central Oregon Canal leaves ponds and scrub land and flows under Walker Road in Alfalfa at elevation 3368, having dropped 390 feet since it left the Deschutes River. It is close to the Alfalfa Store and gas station at this point. It enters a more intense agricultural area, with irrigated hay farms and cattle and horse ranches in the center of the community of Alfalfa. A significant amount of water is distributed to grow pasture, Timothy hay, orchard grass and alfalfa. In Alfalfa, the canal becomes nearly straight, stays west of the Dry River canyon, and has no visible rock or berms, with the canal crossing farmable land and filling big irrigation ponds and extensive wetlands.



Looking north in Alfalfa from the Alfalfa Market Road Bridge, elevation 3361, at 25890 Alfalfa Market Road, where the straight, shallow canal flows between horse ranches.⁴⁰²

North of Alfalfa, the canal flows toward Powell Buttes, looming directly north of Alfalfa, leaving private irrigated land, and enters a long stretch of dry public scrub land. It flows in a shallow canal through dry, unfarmable land along the western edge of the Dry River Canyon.

⁴⁰¹ Photo by Patricia Kliewer, August 17, 2016.

⁴⁰² Photo by Patricia Kliewer, August 17, 2016.

⁴⁰² Photo by Patricia Kliewer, May 22, 2017.

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The canal flows through dry sagebrush and small juniper trees along the western edge of the Dry River Canyon between Alfalfa and Powell Butte. Looking southeast from the canal embankment.⁴⁰³

Above the Brasada Ranch Resort and Equestrian Center in the Dry River Canyon, which formerly was Shumway Ranch, the canal enters a non-historic steel pipe called the Powell Butte Siphon which drops down into the bottom of the Dry River Canyon and crosses under Johnson Ranch Road. The 20-year-old steel pipe is buried beside the road in the County right-of-way and follows the road north past the entrance to the resort golf course and visitor center until it climbs the eastern edge of the canyon, crosses Shumway Road, and dumps into an open canal once more. Brasada Ranch Resort, a re-created Shumway Pond, the Golf Course and Equestrian Center are irrigated with water delivered by the 'J' Lateral.



The water forcefully rushes out of the Powell Butte Siphon pipe on the eastern ridge of the Dry River and enters a dispersion pond at elevation 3229 and begins its northerly route toward Powell Butte. Looking north.⁴⁰⁴

In the community of Powell Butte, the 30' wide and 2' deep canal is consistent in width and depth and runs in gentle curves or in straight lines as it flows north and east through irrigated farmland on the western and northern edges of the Powell Buttes. It has either no berms on flat stretches or short, inconspicuous berms on the downhill side of gentle slopes. Irrigated grasses grow up to the water's edge. Rock is sparse. Most parcels are 10 to 160 acres and are irrigated and in pasture, although there are some rural residential subdivisions and 1-acre lots. Horse and cattle ranches are common, as are sheep and goat herds. A ditch rider road parallels the canal on the west/north side. In Powell Butte, a large volume of water is split off to the laterals.

⁴⁰³ Photo by Patricia Kliewer, May 22, 2017.

⁴⁰⁴ Photo by Patricia Kliewer, May 22, 2017.

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The Central Oregon Canal in Powell Butte serves productive cattle and horse ranches and hay farms. Looking north from the Powell Butte Highway Bridge.⁴⁰⁵

The canal quickly flows toward the east, a quarter mile south of the Powell Butte Post Office, the Powell Butte Country Store and Gas Station, the Powell Butte Christian Church and Powell Butte Community Charter School. It turns north and crosses Ochoco Highway # 126 at elevation 3223, having dropped 535 feet from the Deschutes River. It flows north through wetlands and pastures, east of the Powell Butte School. It is now eight miles east of Redmond and eleven miles west of Prineville. In a nearly straight line, it flows north in a grass-lined dirt channel about 13' wide and 3' deep. Many driveways cross it with home-made wooden bridges. No rock is visible in the canal and both sides have no berms or ditch rider roads. In this short stretch between Highway 126 and Houston Lake Road, the canal drops 126 feet in elevation.



North of the community of Powell Butte, the canal rapidly drops in elevation and is about 13' wide and flows under many wooden bridges for driveways.

Near Houston Lake Road, the canal stays as high as it can in elevation while winding west through the gentle hills. The ditches deliver the water in both north and south directions to large wetlands, irrigated fields and to the low points at Little Houston Lake and Houston Lake. The main canal divides just west of NW Serrano Lane in Powell Butte, and water runs down the hill in a 12" diameter black corrugated black plastic pipe to irrigation ponds and ditches on Lark Gardens Cattle Ranch. The western portion of the main canal continues northwest to ditches and irrigates other ranches, finally dumping in to a large unnamed pond in T14S, R14E, Section 26. Dry River, the O'Neil Highway and the Crooked River are within a mile of the terminus of the canal. A 12" diameter black corrugated plastic pipe is often dry, but occasionally delivers some water to the Crooked River. The canal has dropped 701 feet since its diversion from the Deschutes River.

⁴⁰⁵ Photo by Patricia Kliewer, May 22, 2017.

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The canal is about 8 inches deep and 48 inches wide where it splits into two ditches at Serrano Lane and Lark Gardens Cattle Ranch, northwest of Powell Butte. Photo looking west from 1570 NW Serrano Lane.



Looking north down Serrano Lane to the end of the ditch conveying water from the canal in the irrigated Lark Gardens Cattle Ranch.⁴⁰⁶

**COMPARISON OF THE CENTRAL OREGON CANAL HISTORIC DISTRICT
(WARD ROAD – GOSNEY ROAD SEGMENT) WITH THE BRASADA RANCH SEGMENT**



Photo looking southwest from the stilling pond on the east bank of the Dry River, across the site of the Powell Butte Siphon, stave pipe and trestle. Some remains of the historic flume outlet structure are in the foreground.⁴⁰⁷

In 2017, the National Park Service determined that the Brasada Ranch Segment of the Central Oregon Canal was eligible for listing on the National Register of Historic Places. The segment is in the Dry River Canyon

⁴⁰⁶ Photo by Patricia Kliewer, May 22, 2017.

⁴⁰⁷ Photo by Patricia Kliewer, taken on December 10, 2017.

Commented [HC52]: Not really pertinent to this nomination. This nomination should stand on its own merits, not because it's being compared to another NR nomination.

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between Alfalfa and Powell Buttes, at Township 16 South, Range 14 East, Section 28. Brasada Ranch is a private, 1,800-acre, gated, golf community and resort with nearly 1,000 residential lots (with more phases being planned), an 18-hole golf course, a restaurant and overnight lodging. This is the site of the historic Powell Butte Siphon, that included the impressive wood stave pipe, previously described in this nomination, that was designed by Deschutes Irrigation and Power Company's project engineer Charles M. Redfield. (The Brasada Segment nomination inaccurately attributed it to Levi Wiest.)

The DI&P Co. canal construction crews completed the open canal to Alfalfa in 1907. In the fall of that year, the crews were north of Alfalfa at the spot that they needed to cross the 65-foot-deep Dry River canyon. The crews built an intake structure at the top of the west bank of the river gorge that would funnel water from the 20-foot wide open canal into a 5-foot diameter wooden pipe. Water dropped into the wire-wrapped redwood pipe, called a stave pipe. The stave pipe transported the water down the west side of the canyon wall, across the dry river bed, and up the east side of the canyon, using the principle of a siphon. There, the water dumped into an elevated wooden flume that was mounted on a wooden trestle. The flume transported the water for the short distance to the outlet structure and then into a small stilling pond. The pond was at the newly constructed section of open canal that delivered water north to Powell Butte, on the east side of the Dry River. The structures allowed the irrigation company to connect the two open canal segments, one on either side of the Dry River that were already constructed, both north and south of the location.

The parts for the siphon pipe were made to Redfield's specifications by the Douglas Fir National Pipe Company of Olympia, Washington. The pipe was 1,620' long and 56" in diameter.⁴⁰⁸ The canal and pipe carried enough water to irrigate 12,000 acres. A camp composed of 35 men and 18 horse teams installed the trestle and redwood pipe. The pipe was partially buried across the river bed. While the intake structure, the trestle and flume, and other structures were being constructed, and the pipe was being assembled, crews were also working on the canal north of the siphon to Powell Butte. When the siphon was completed, the water was flowing for the first time into the open 16' wide and 4' deep irrigation canal that was heading to Powell Butte. The trestle and pipe were completed in January 1908 for a total cost of \$10,000. During the 1908 irrigation season, water was flowing in the Central Oregon Canal for 45 miles across the high desert, from the Deschutes River to Powell Butte. By 1908 the main canal was completed. A bottleneck had been identified in the Ward Road to Gosney Road segment, which was enlarged. Lateral construction continued, and the system was enlarged in some locations, including a second time at the Ward Road to Gosney Road segment, through 1914. Both the Brasada Ranch site and the Ward Road to Gosney Road segment display how the irrigation company met unique geologic and geographic challenges to build the canal to Powell Butte.

COID replaced the aging historic structures at the Powell Butte Siphon in 1978. The modern intake structure is concrete, with power driven gates. The steel siphon pipe is not visible because it is completely buried along Alfalfa Road, a paved two-lane county road that traverses the center of the river bed. The unused wooden trestle was disassembled in 1993-1994. Re-usable lumber was stacked northeast of the stilling pond. Today, part of the trestle lumber is adaptively re-used as a golf cart path to bridge a low spot between holes on the Brasada golf course. It creates a dramatic entrance to the resort, as the entry road passes under it. A few deteriorating concrete and wood remain of the historic structures are all that is left on the site.

⁴⁰⁸ *Crook County Journal*, Prineville, OR, July 14, 1910, 1.

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The intake structure with a trash rack to keep debris out of the steel pipe that crosses the Dry River bed. The wastewater spillway gate is on left. Photo shows recent major alterations to the canal bed and side slope.⁴⁰⁹

The area at Brasada Ranch that was found to be eligible for listing also included a 600' length of functioning, open, historic canal south of the intake structure, on the west bank of the Dry River. However, COID recently bulldozed the canal bed and eastern embankment, deepening it and removing the riprap and other historic features. The non-contributing headgate and headwall to the 'J' Lateral that formerly served the Shumway Ranch and now serves the resort, remains in its historic location in this stretch, but was significantly upgraded and altered in 1978 and is non-contributing. One would have to see historic photos of the Powell Butte Siphon and learn about it to imagine it crossing the Dry River. The remains of the other structures and the stretch of open canal are secluded and inaccessible to the public. Brasada Ranch is entirely private property.

In contrast to the historic site at Brasada Ranch, the nominated stretch of the canal is an exemplary 3.4-mile-long living stretch of the historic canal with very few alterations and many intriguing components. The public will be welcome to the 80-acre public Bend Park & Recreation District property that is traversed by the canal in the nominated historic district. While the open canal segments at Brasada Ranch are heavily altered and it is primarily the site of the siphon that was removed forty years ago, the canal in the historic district continues to function as it has for the past 110 years. The canal there holds more than twice as much water as the Brasada Ranch segment and is much larger, up to 78' wide, than the 16'- 22' wide by 4' deep canal at Brasada Ranch. The historic district has 21 functioning headgates, with many being historic contributing, that lead to three laterals and 14 ditches that serve rural patrons up to five miles away.

The historic district displays the progression of settlement, from a parcel of 80 acres to parcels of 1 acre. Nearly $\frac{3}{4}$ of the canal in the historic district passes through rural farms with irrigated land that was sold to settlers by the canal developers. It also includes some unirrigated and unfarmable scrub lands that did not have water rights and were not included in Segregation List 6. The same lava tubes, caverns, hills and dips that made the land undesirable for farming and difficult to irrigate by gravity, resulted in the segment being labor-intensive to build. In contrast, the Brasada Ranch segment was formerly in the Shumway livestock ranch but is now in a residential golf course community and resort. The Shumway Pond is now rebuilt and is smaller and surrounded by homes. The canal in the nominated historic district continues to function for agriculture. A dozen irrigation ponds are adjacent to it, as are many irrigated pastures for livestock, displaying the agricultural use of the water. The historic canal itself with its tall berms and extensive rock left in the bed, dozens of drill holes, and Burt Chute display how the construction company met challenges and the techniques they used between 1905 and 1914. One can see and feel the full power of the mighty canal that changed the appearance and history of the high desert, east of the Deschutes River and south of the Crooked River, and that brought thousands of settlers from all over the world.

⁴⁰⁹ Photo by Patricia Kliewer, taken on May 22, 2017.

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Interviews by Preparer

Ann Gallagher, June 23, 2017, Denver, Colorado (Charles Monteith Redfield)
Linda Gelbrich, May 22, 2017, Corvallis, OR (Murich Family)
Jason Gillam, November 1, 2017, Bend, OR (Philip Burt Ranch)
Linda Gilliland, April 5, 2017, Bend, OR (Bradetich Family)
Mac Goelst, May 26, 2017, Bend, OR (Bradetich Family and buildings constructed by Dragan Mirich)
Suzanne Grund, March 2, 2017, Bend, OR (Rickabaugh Family)
Gary Grund, April 3, 2017, Bend, OR (Farming, historic structures and early residents)
Paul and Olivia Hackett, September 27, 2017, Tepic, Mexico (Ida and Paul Hackett Family)
Loretta Ann Hadley, October 31, 2017, Bend, OR (Dragan Mirich)
Jim Hollander, November 2, 2017, Bend, OR (COID Ditchrider)
Carla and Gregory Hunt, October 31, 2017, Bend, OR (Historic structures)
Lynn Schilling Johnson, November 1, 2017, (Paul S. Hackett Turkey Ranch and Burt's Bridge.)
Dan Rastovich, April 5, 2017, Bend, OR (Rastovich Family)
Charles Morris Redfield, June 28, 2017, Mill Valley, CA (Charles Monteith Redfield)
Robert Stephen, October 31, 2017, Bend, OR (Wooden Flume, Stearns Wasteway)
Richard Torkelson, June 10, 2017, Bend, OR (Burt Chute, bridges, roads, and Torkelson Family)
David Turner, May 26, 2017, Bend, OR (Burt Chute)

Contributors

Suzanne and Gary Grund, long-time Central Oregon Canal property owners.
Michael Hall, Historic Preservation Consultant and author, Madras, OR.
Judy Hanson, Central Oregon Canal property owner.
Tor Hanson, Deschutes County, OR, historian.
Vanessa Ivey, Deschutes County Historical Museum, Bend, OR, staff.
Don Kliewer, P.E., Civil Engineer, Bend, OR.
Steve Lent, Bowman Museum, Prineville, OR, staff.
Tony Licitra, long-time Central Oregon Canal property owners.
Linda Orcelletto, Orcelletto Communications, Bend, OR.
Jeff Perreault, retired USGS hydrologist, Bend, OR.
Janice and David Turner, long-time Central Oregon Canal property owners.
Jenna and Noah Walden, Central Oregon Canal property owners.
Aleta Warren, long-time Pilot Butte Canal property owner.

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Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67 has been requested)
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

recorded by Historic American Engineering Record # ORE. 9-BEND. 3 and 2D Name of repository(ies): _____

Historic Resources Survey Number (if assigned): N/A

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10. Geographical Data

Acreage of Property 41.35 acres

(Do not include previously listed resource acreage; enter "Less than one" if the acreage is .99 or less)

Latitude/Longitude Coordinates

Datum if other than WGS84: N/A

(enter coordinates to 6 decimal places)

| | | | | | |
|---|-------------------------------|---------------------------------|---|-------------------------------|---------------------------------|
| 1 | <u>44.042810°</u> Latitude | <u>121.243442°</u> Longitude | 3 | <u>44.035397°</u> Latitude | <u>121.193498°</u> Longitude |
| 2 | <u>44.042534°</u> Latitude | <u>121.243437°</u> Longitude | 4 | <u>44.035128°</u> Latitude | <u>121.193494°</u> Longitude |

Verbal Boundary Description (Describe the boundaries of the property.)

The nominated area in the historic district includes the segment of the Central Oregon Canal within the west half and the northeast quarter of Township 18 South, Range 12 East, Section 1, W.M.; the north half and southeast quarter of Section 6 and the southwest quarter of Section 5 and the northwest quarter of Section 8 of Township 18 South, Range 13 East, W.M. Its western boundary is the eastern edge of the Deschutes County right-of-way for Ward Road. Ward Road runs north-south along the western section line of T18S, R12W Section 1. The historic district's eastern boundary is the western edge of the Deschutes County right-of-way for Gosney Road. Gosney Road generally follows the north-south midsection line through Sections 5 and 8 of T18S, R13E. The northern and southern boundaries are lines drawn 50' on either side of the centerline of the Central Oregon Canal, establishing a 100' wide corridor. The district includes the canal, historic-contributing features and its historic setting within the 100-foot corridor. The district excludes outdoor lighting, private fences and other structures within the nominated corridor that are not related to the operation of the Central Oregon Canal and not noted in Section 7 of this document. (See Figures 2-5.)

Boundary Justification (Explain why the boundaries were selected.)

The boundaries of the Central Oregon Canal Historic District were determined in accordance with the *Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978* MPD, through which the property is nominated. In addition to referring to the National Register Bulletin #21 (NRB), "Defining Boundaries for National Register Properties," the MPD further elaborates on how to determine the boundaries of historic districts nominated through that cover document (pp. F-33 to F-35). The MPD and NRB provide that the boundary should be drawn to embrace the distribution of intact resources that reflect the historical significance of the nominated resource. Secondly, historic and legal boundaries may be used when these include the significant resource and its associated features. Finally, in areas where the natural or cultural features or the legal boundaries do not provide a suitable boundary, the boundary may be drawn such that it includes the full extent of the eligible property, and a reasonable immediate setting, such that the boundary provides "reasonable limits" to the nominated area.⁴¹⁰ The MPD acknowledges that in some cases, a combination of these factors may be used to form suitable boundaries.⁴¹¹

For historic districts comprising segments of canal and related secondary elements, the MPD indicates that the nominated area should be based (in part) on the density of secondary features. In cases where there are few secondary features, a longer segment of the principal feature should be nominated. By contrast, if there are

⁴¹⁰ Seifert, Donna J. *Defining Boundaries for National Register Properties*. National Register Bulletin #21. U.S. Department of the Interior, National Park Service, 1997 (rev.). p. 3-4.

⁴¹¹ MPD, p. F-34.

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many secondary elements present, a shorter segment of the principal feature may be sufficient. The COCHD meets both of these intentions, through its inclusion of many secondary features, as well as representing the longest segment of irrigation canal nominated in the State of Oregon to date, twice the length of the next longest National Register-listed segment (Pilot Butte Canal Historic District).

The COCHD boundaries are determined through a combination of factors that embrace the extent of the canal and its appurtenant secondary features that relate to the historical significance derived from the uniquely difficult terrain through which the canal had to pass in order to deliver water to lands beyond this volcanic, rocky terrain. On the east, the boundary is set at the 1968 Gosney Road Bridge that crosses over the canal, just over water-level. This boundary is appropriate, in that beyond this point, the canal very quickly enters into soils that did not require the intensive effort to clear, and was constructed much more quickly and easily. As a result, the character of the canal changes to a distinctively "U" shape (distinct from the trapezoidal profile found within the nominated district) that, while retaining historic integrity, does not reflect the significant difficulty encountered during the construction of the nominated area. Because this change in character occurs very close to Gosney Road, but is not readily evident when the canal is fully watered, the Gosney Road Bridge was selected as a reasonable point at which to draw the boundary, and includes the contributing elements related to the significance of the nominated area. Similarly, the western boundary of the district is at a 1968 two-lane concrete bridge, the Ward Road Bridge, built outside of the period of significance. West of the bridge, the canal flows through nearly flat terrain in an increasingly urbanizing environment with a substantially altered setting with wooden privacy fences, vinyl decorative fences, and wide public pedestrian and bike trails within 50 feet of the centerline of the canal, representing a substantial break in the continuity of the historic canal and historic setting. It is a segment of canal that has only two headgates, and two residential sized irrigation ponds and no commercial agriculture. Because the canal crosses many property boundaries on a continuous right-of-way, and none are evident to the observer, no legal boundary was found to be suitable. In consideration of these factors, and the clear visibility of the bridge even when the canal is fully watered, the Ward Road Bridge is considered to be a reasonable boundary.

Because the canal varies significantly in width across the length of the nominated area, and in order to embrace the several related secondary elements that branch off of the canal (such as the heads of laterals and ditches that emerge from headgates along the canal), and that provide important contextual resources for the interpretation of the canal system, the width of the nominated segment is reasonably set at 50 feet in both directions from the centerline of the canal, for a total, continuous width of 100 feet. The boundary of the Central Oregon Canal Historic District includes the entirety of the nominated stretch of the Central Oregon Canal itself and associated structures that are necessary to convey and deliver irrigation water to patrons, including turnouts, headwalls, pipes, a flume, a chute, catwalks, wasteway, and embankments. It includes the immediate historic setting within the 100' corridor as described above. The wide variation in the canal's width in this stretch precludes a tighter boundary; however, the selected 100' corridor includes the canal itself and most of the associated historic features and structures necessary for the irrigation system to convey water to its patrons.

The district boundaries selected include a stretch of the canal that is sufficient in length to include the various slopes and flat terrain that the canal passes through during its 47 mile-length. In the district, there are flat areas in which the canal was scraped out after cuts were made in the earth on both sides of the bed, sloping areas that required a cut on the high side and a berm of various heights on the low side, and areas of exceptional drops in the terrain that originally needed to be spanned by a wooden flume that was later replaced by the tallest berms on the irrigation system to allow the water to flow at the desired elevation. The district boundaries include the typical elements of an irrigation system: the historic canal, two laterals, one sub-lateral, headwalls, pipes, catwalks, a chute, falls, a flume, embankments and 16 ditches. It includes many headgates to regulate water flow to the laterals and ditches that serve the patrons nearby and miles away from the canal, and a wooden bridge dating to within the period of significance (though non-contributing due to a lack of direct relationship to the historic context) typical of those built by settlers to bridge the canal. The setting of the historic canal within the historic district boundaries includes a variety of sizes of parcels. A stretch of the canal

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in the district passes through nearly 80 acres of land in public ownership with native vegetation, remaining uncultivated and undeveloped, as it was when the canal was constructed. It also includes 12 large parcels of irrigated and cultivated land that have associated irrigation ponds and water rights. Five parcels are between 30 and 51 acres, three parcels between 20 and 30 acres, and five parcels between 10 and 20 acres. There are three irrigated hobby farms with sheep, goats, horse and cattle in the pastures beside the canal.

11. Form Prepared By

name/title Patricia A. Kliewer, MPA, Historic Preservation Planner date June 27, 2017
organization Kliewer Engineering and Associates telephone (541) 617-0805
street & number 60465 Sunridge Drive, Bend, OR 97702 email pkliewer@hotmail.com
city or town Bend state OR zip code 97702

Additional Documentation

Submit the following items with the completed form:

- **Regional Location Map**
- **Local Location Map**
- **Tax Lot Map**
- **Site Plan**
- **Floor Plans (As Applicable)**
- **Photo Location Map** (Include for historic districts and properties having large acreage or numerous resources. Key all photographs to this map and insert immediately after the photo log and before the list of figures)

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Photographs:

Submit clear and descriptive photographs. The size of each image must be 3000x2000 pixels, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered, and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Central Oregon Canal Historic District (Ward Road to Gosney Road Segment)
City or Vicinity: Bend
County: Deschutes **State:** OR
Photographer: Patricia A. Kliewer
Date Photographed: April 3, 2017

Description of Photograph(s) and number include description of view indicating direction of camera:

- Photo 1 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0001)
Looking west to the Ward Road Bridge on the western boundary of the historic district. Canal is 68' wide at this point and 5.' deep with a cut south side and a low berm on the north side.
- Photo 2 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0002)
Looking west toward west end of historic district, with Cascade Mountain peaks in the distance.
- Photo 3 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0003)
Looking north across irrigated land from top of tall berm along north side of canal.
- Photo 4 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0004)
Looking east with a tall berm with rip-rap on the north side in a deep, narrow portion of the canal that holds water year around.
- Photo 5 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0005)
Looking north from top of berm into shared delivery gate and irrigation pond, with PVC pipe and electric pump coming out of pond.
- Photo 6 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0006)
Property owners walk on ditch rider truck wheel tracks on grass covered north berm along canal under Bonneville Power Administration power transmission poles crossing over the canal.
- Photo 7 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0007)
Looking east from the Bear Creek Ranch Bridge, cut on the south side and berm on north side.
- Photo 8 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0008)
Heavily silted canal bed holds water year around, looking east.
- Photo 9 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0009)
Stacked rock on the bermed north side of canal near middle of the historic district.

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Photos Continued

- Photo 10 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0010)
Looking east from canal bed with a cut on the south side and tall berm on the north side.
- Photo 11 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0011)
Looking west in Burt Chute with ditch rider road on right side.
- Photo 12 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0012)
Looking west into the drop from Burt Chute into pond.
- Photo 13 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0013)
Looking east in shallow, wide canal bed with cuts on both sides in area of scrub land.
- Photo 14 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0014)
Shallow canal bed with cuts on both sides, looking east through scrub land
- Photo 15 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0015)
Looking south at a pentagon-shaped drill hole for blasting rock in the canal bed.
- Photo 16 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0016)
Looking east at lava flows in canal bed.
- Photo 17 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0017)
Looking east near Teal Road with lava flows in bed.
- Photo 18 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0018)
Uneven canal bed with cut sides through scrub land, looking west.
- Photo 19 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0019)
Carefully stacked rock on steep south side slope, looking east.
- Photo 20 of 20:** (OR_DeschutesCounty_CentralOregonCanalHistoricDistrict_0020)
Looking east to Gosney Road Bridge at east end of historic district. Tall berms are on both sides, north side is silted. Canal is 59' wide and 5.5' deep.

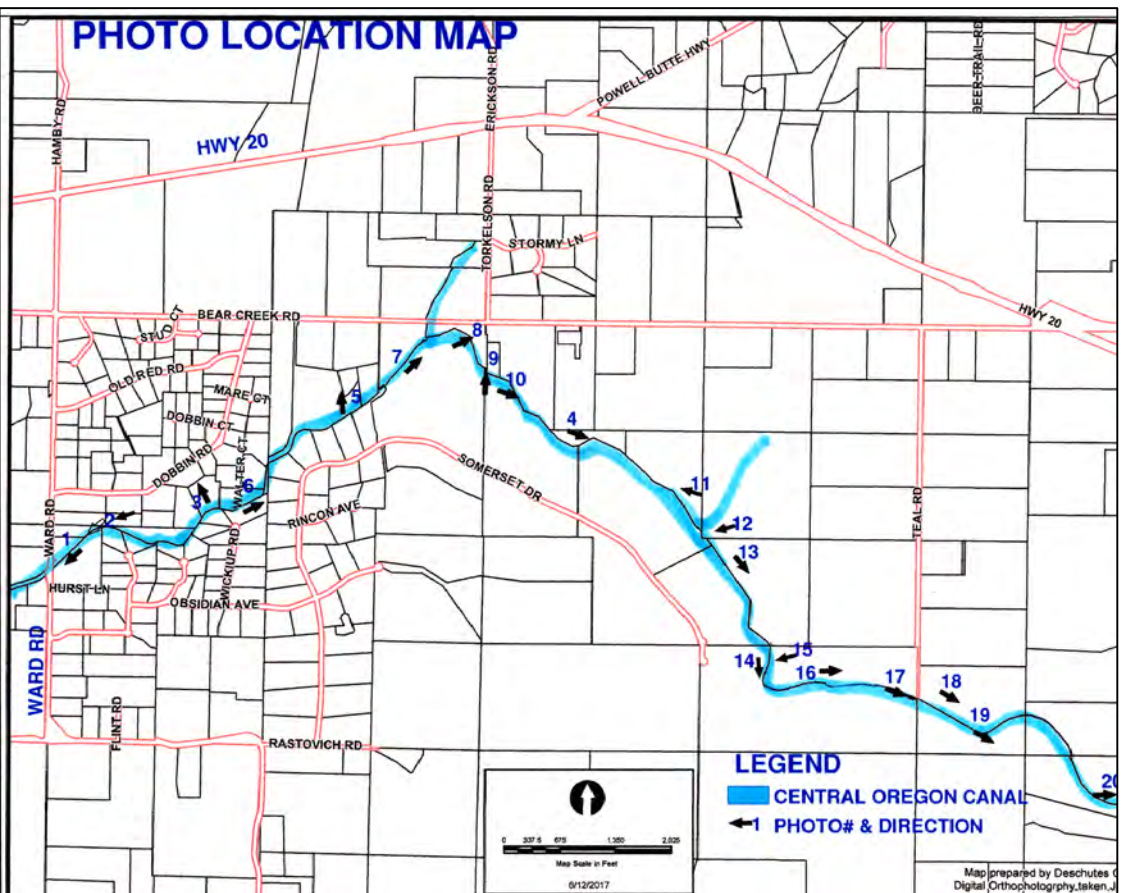
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC

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Photo Location Map



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National Park Service

National Register of Historic Places Continuation Sheet

Section number Additional Documentation Page 136

| |
|--|
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| Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 |
| Name of multiple listing (if applicable) |

List of Figures

(Resize, compact, and paste images of maps and historic documents in this section. Place captions, with figure numbers above each image. Orient maps so that north is at the top of the page, all document should be inserted with the top toward the top of the page.)

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- Figure 2:** Local Location Map.
- Figure 3:** USGS Quadrangle Map of Historic District.
- Figure 4. a-f:** Tax Lot Maps with Boundary of Historic District Indicated with Heavy Black Lines.
- Figure 5a:** Map Showing Location of Structures in the Historic District.
- Figure 5b:** Map Showing Location of Drops in Elevation in the Historic District.
- Figure 6:** Map, 1924, by Frank Becker, Oregon State Engineer, depicting Central Oregon from the Columbia River to Crater Lake and showing rivers and canals.
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- Figure 12:** Map of water rights in T18S, R13E, Sections 5, 6 and 8.
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- Figure 17:** Map dated 1972, Metsker's Atlas of Deschutes County, T18S, R12E, showing Section 1.
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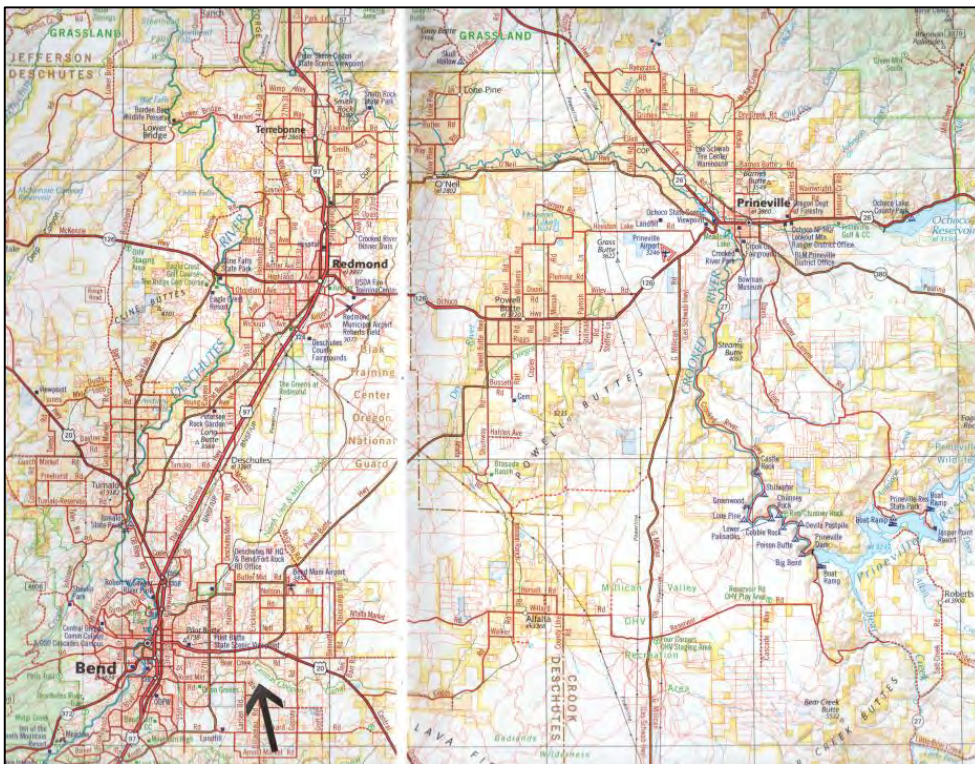
United States Department of the Interior
National Park Service

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FIGURE 1: General Location Map. Benchmark Maps Oregon Road & Recreation Atlas, 2016.
Showing Locations of Bend, Redmond, Prineville, Terrebonne, Tumalo, Powell Butte and Alfalfa.
Black arrow points to the Central Oregon Canal Historic District.



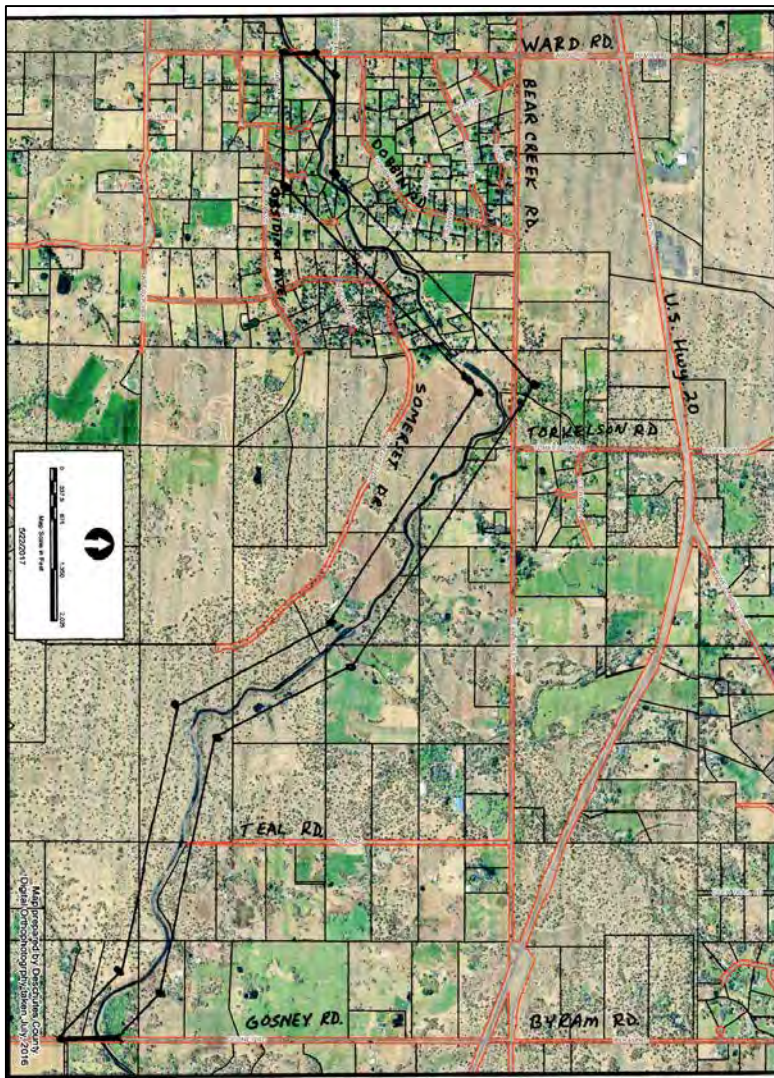
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FIGURE 2: Local Location Map, 2016 Aerial photograph and tax lots.



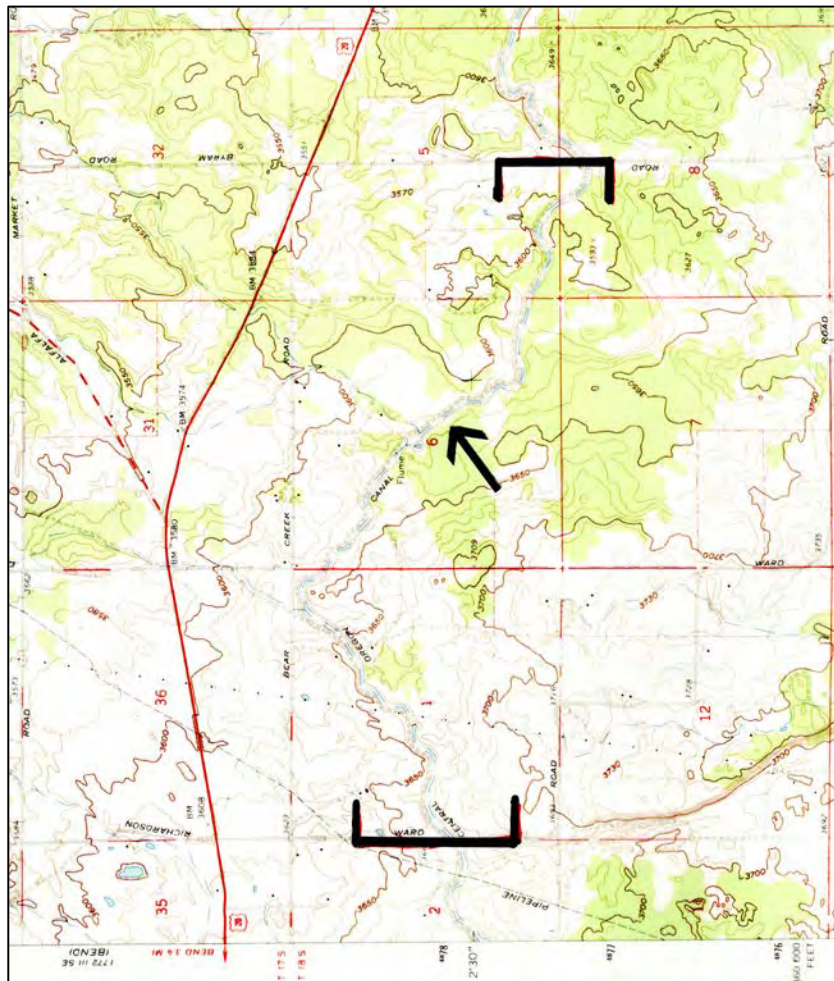
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FIGURE 3: Portion of the U.S. Geological Survey Quadrangle Map, BEND AIRPORT, OREG. 1962
North is to the top of the map.



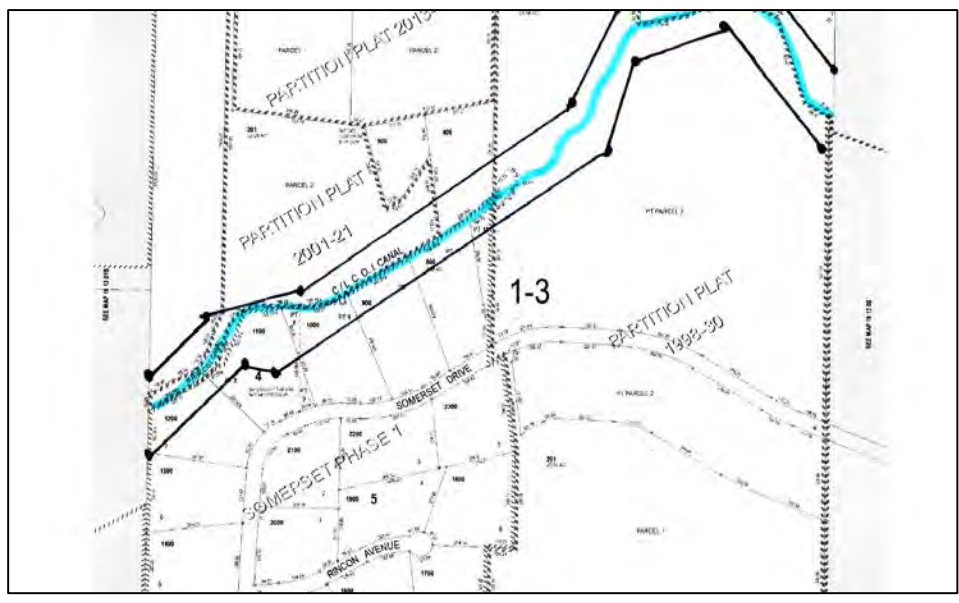
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FIGURE 4a: Tax Lot Map 181201A0, Deschutes County Assessor, 2017.
The historic district boundary is drawn for representational purposes. Not to scale.



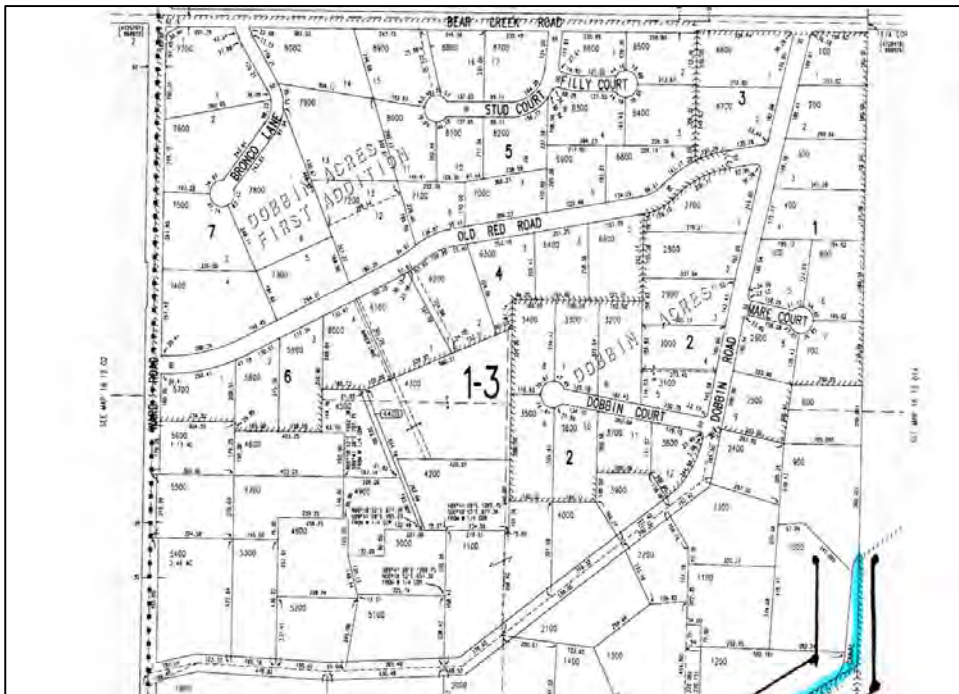
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FIGURE 4b: Tax Lot Map 181201B, Deschutes County Assessor, 2017.
The historic district boundary is drawn for representational purposes. Not to scale.



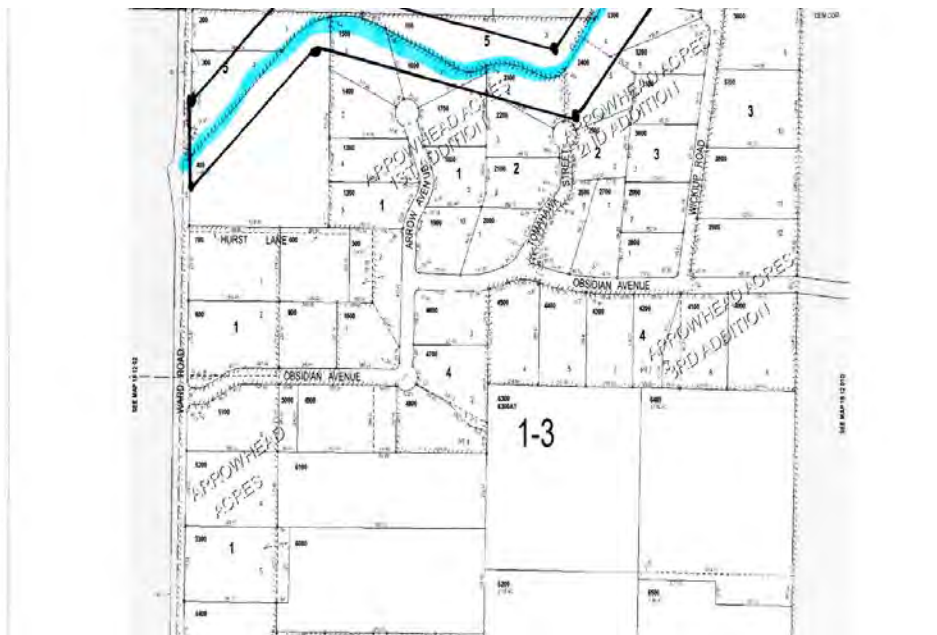
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FIGURE 4c: Tax Lot Map 181201C0, Deschutes County Assessor, 2017.
The historic district boundary is drawn for representational purposes. Not to scale.



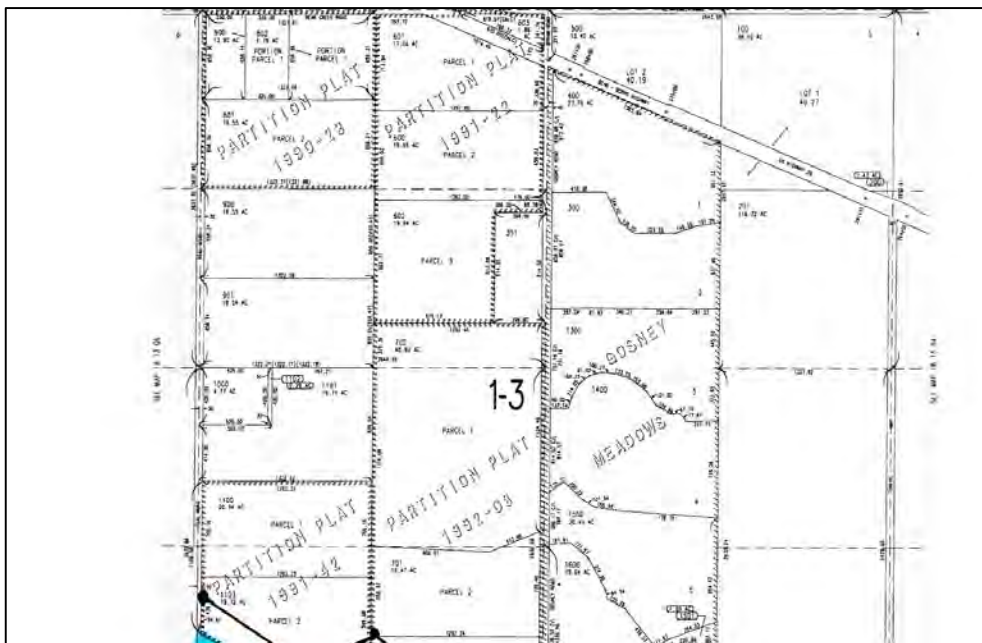
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FIGURE 4d: Tax Lot Map 181205, Deschutes County Assessor, 2017.
The historic district boundary is drawn for representational purposes. Not to scale.



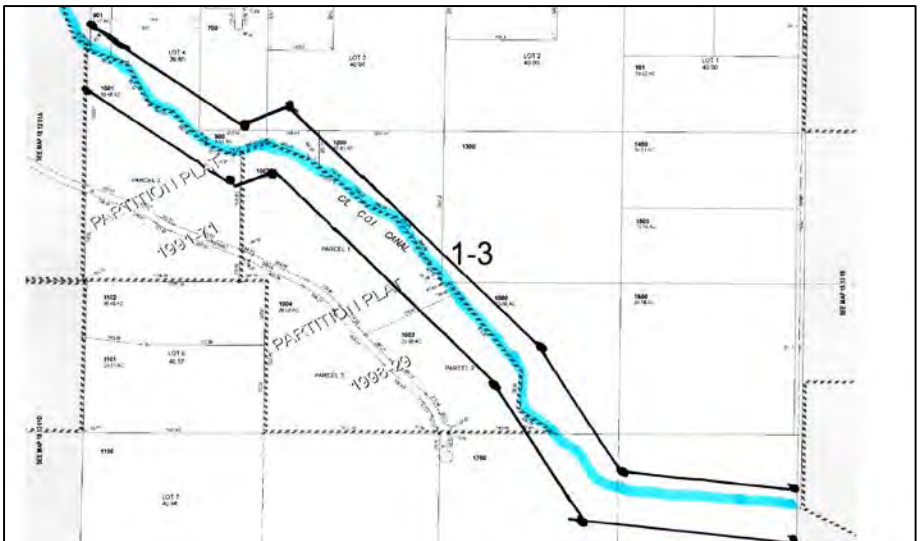
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FIGURE 4e: Tax Lot Map 181206, Deschutes County Assessor, 2017.
The historic district boundary is drawn for representational purposes. Not to scale.



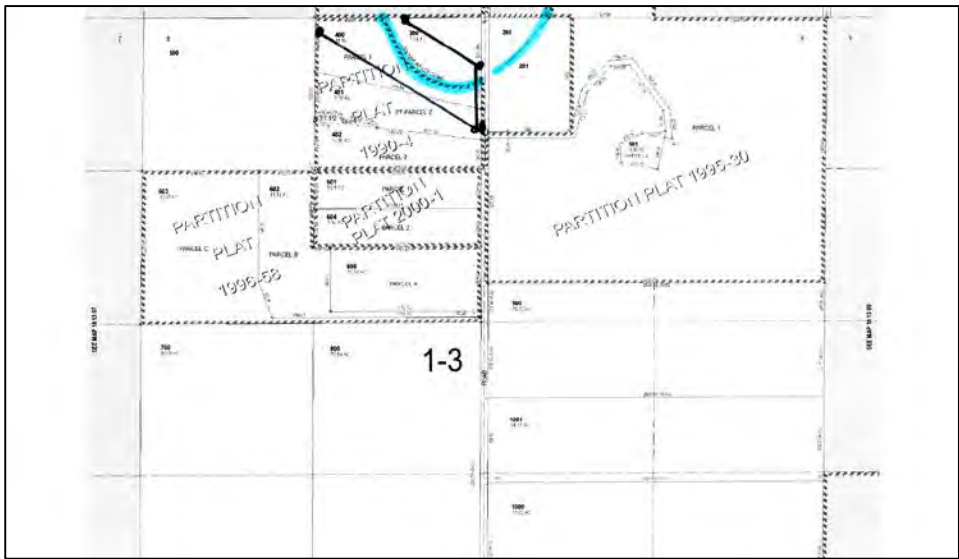
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FIGURE 4f: Tax Lot Map 18120800, Deschutes County Assessor, 2017.
The historic district boundary is drawn for representational purposes. Not to scale.



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FIGURE 5: Map Showing Locations of Structures in Historic District.



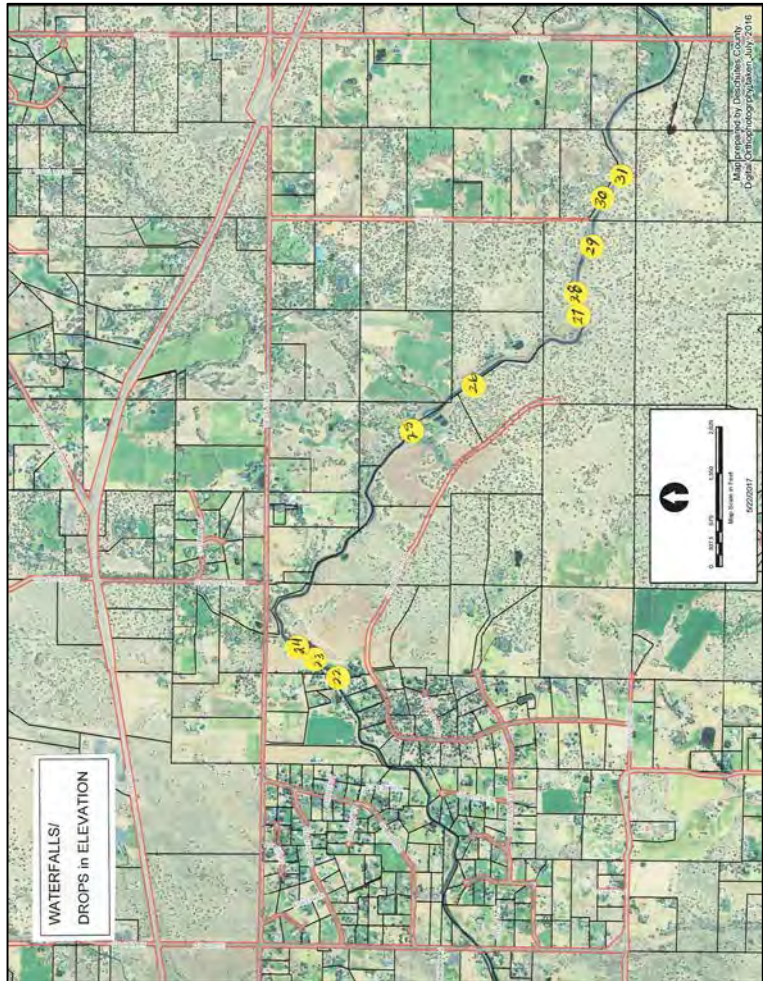
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FIGURE 5b: Map Showing Location of Drops in Elevation in the Historic District.



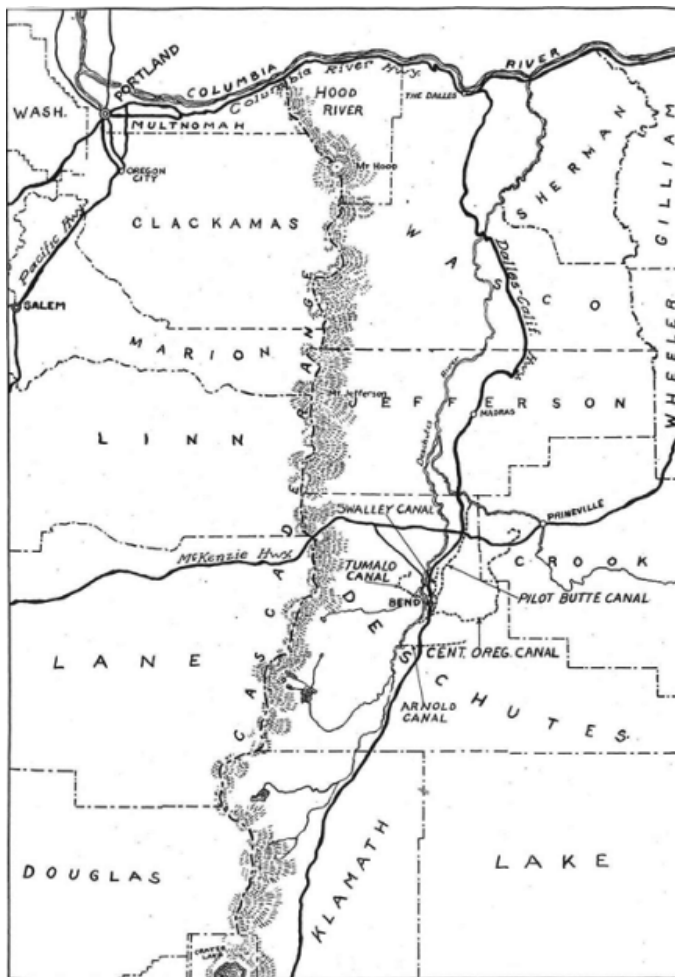
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FIGURE 6: 1924 Map by Frank Becker, Oregon State Engineer, depicting Central Oregon from the Columbia River to Crater Lake and showing rivers and the Pilot Butte Canal and others in the area as of 1924.



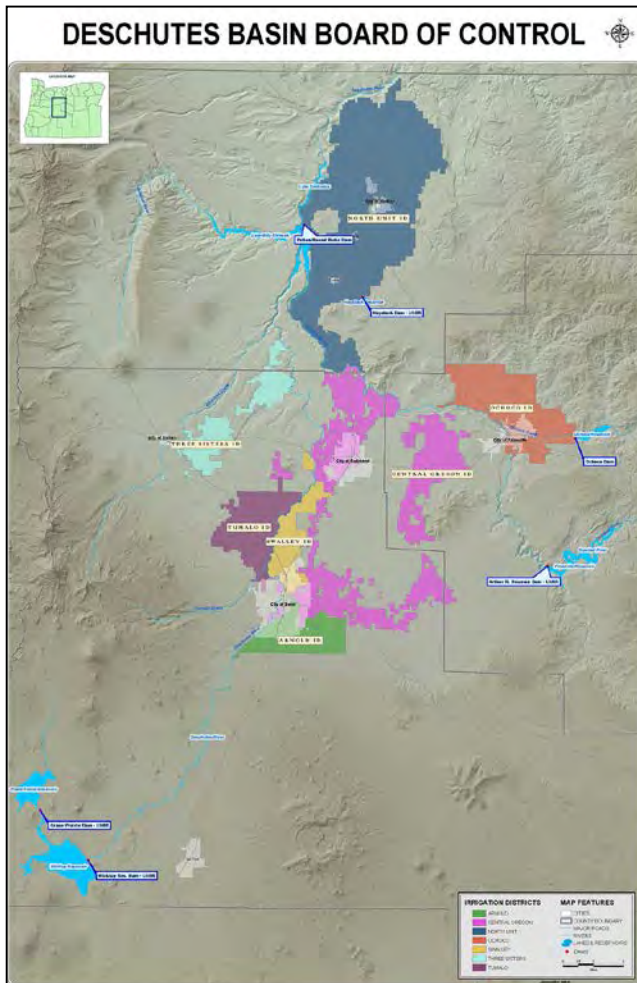
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FIGURE 7: Topographic Map of Eight Irrigation Districts in Upper Deschutes River Basin: Arnold, Central Oregon, Lone Pine, North Unit, Ochoco, Swalley, Three Sisters, and Tumalo Irrigation Districts.



Source of Topographic Map: Deschutes Basin Board of Control (DBBC), 2010.

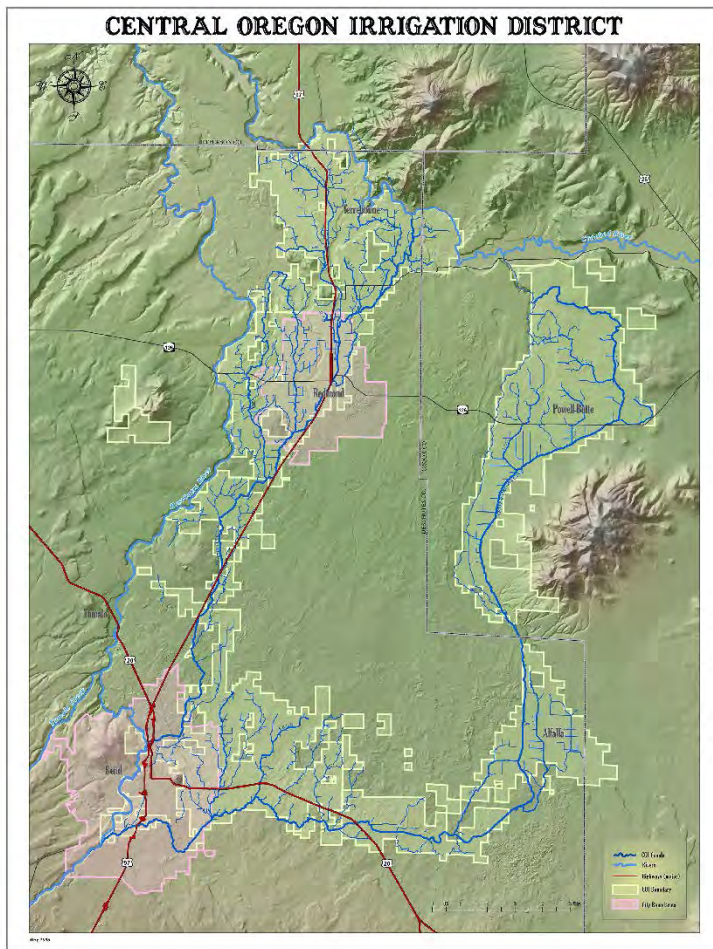
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FIGURE 8: Central Oregon Irrigation District Service Area Map



Source: Central Oregon Irrigation District

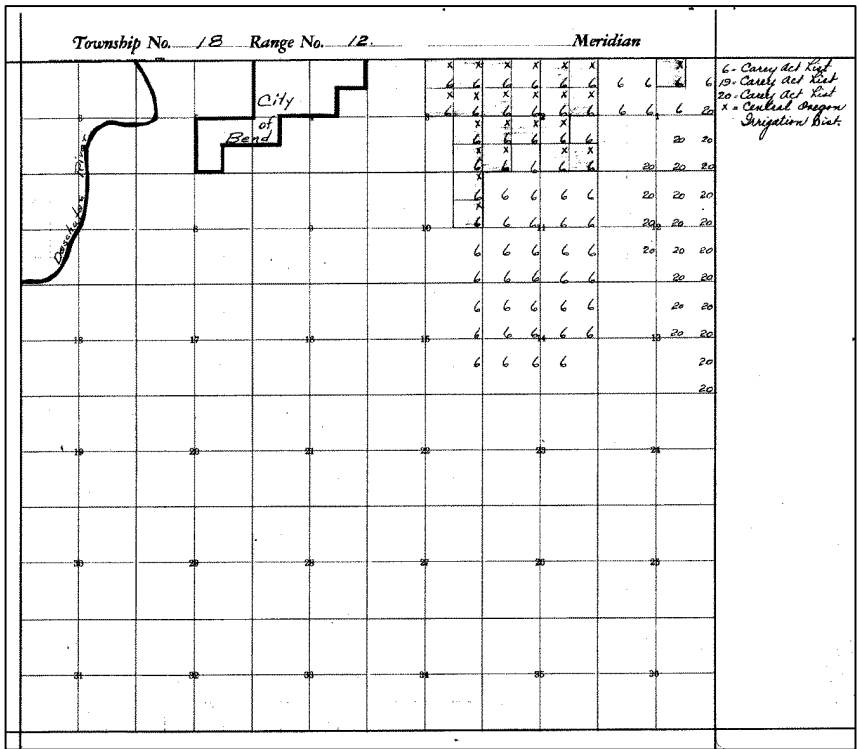
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FIGURE 9: Deschutes County Clerk's Map of T18S, R 12E, showing properties included in Carey Act Segregation List #6 and List #20. "X" indicates Central Oregon Irrigation District.



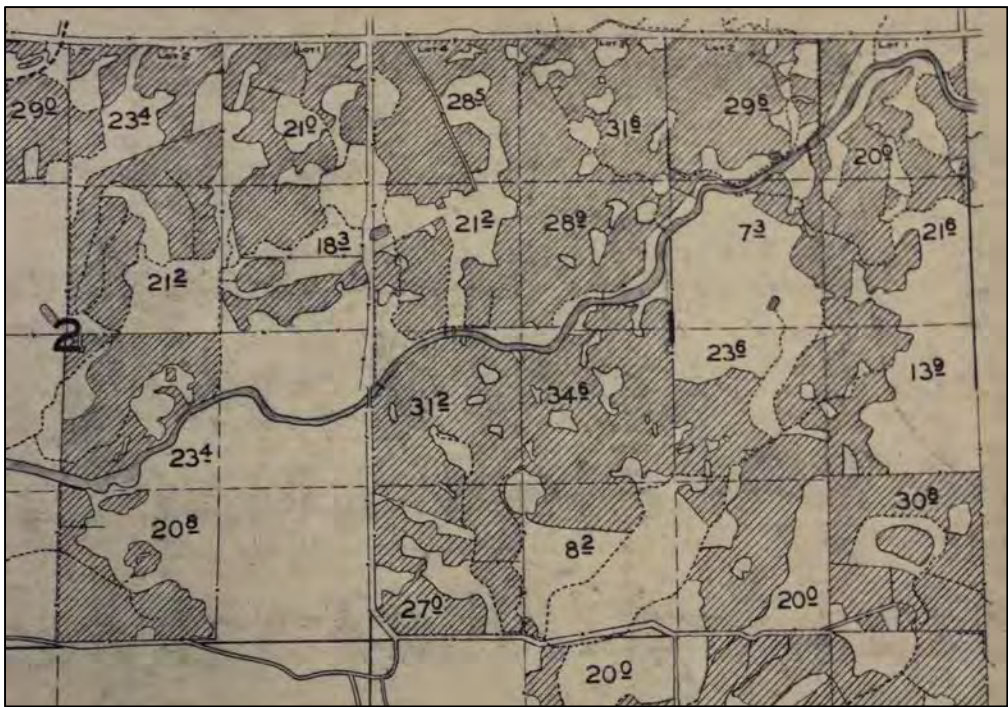
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FIGURE 11: A portion of the "Adjudication Survey of Lands Allowed an Inchoate Water Right", Feb 10, 1928. Township 18 S, R 12 E, Section 1 and the east half of Section 2. Bear Creek Road is at the northern edge and Ward Road is along the section line between Sections 1 and 2, with a bridge crossing the Central Oregon Canal. The road heading north at the upper right edge is Torkelson Road. The numbers indicate the water right acreage in each quarter section. Ditches and laterals are indicated with dotted lines.



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FIGURE 12: A portion of the "Adjudication Survey of Lands Allowed an Inchoate Water Right", Feb 10, 1928 for Township 18 S, R 13 E, Sections 5, 6, 7 and 8. Gosney Road runs north-south through the middle of Section 5 is, with a bridge crossing the Central Oregon Canal. The numbers indicate the water right acreage in each quarter section. Ditches and laterals are indicated with dotted lines. Burt Chute is in the center of Section 6.



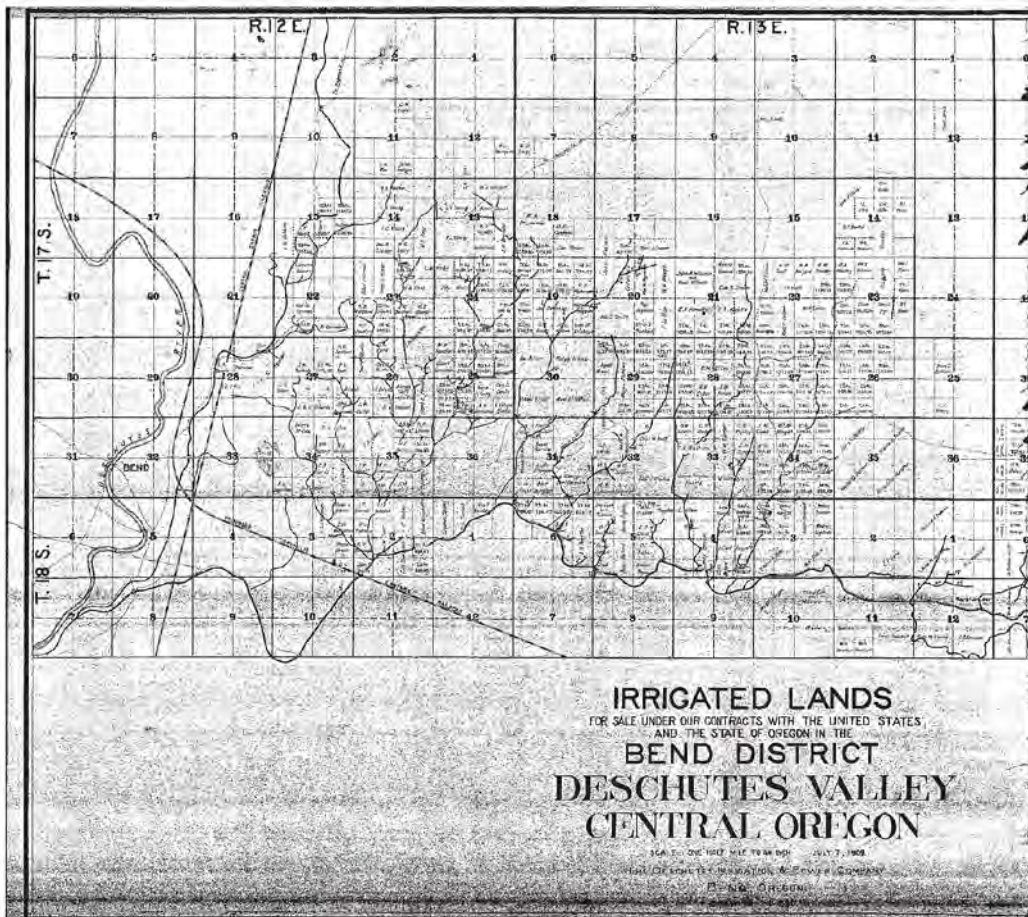
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FIGURE 13: Map of Irrigated Lands for Sale under Contracts with the United States and the State of Oregon in the Bend District, Deschutes Valley, Central Oregon, July 7, 1909.



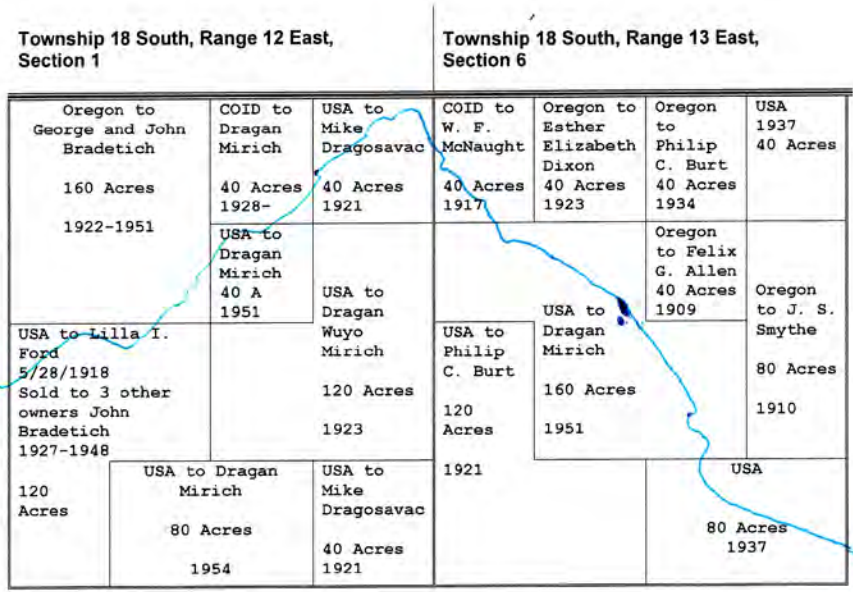
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FIGURE 14a: Original Property Owners in Township 18 South, Range 12 East, Section 1 and Township 18 South, Range 13 East, Section 6. Includes Dates of Purchase and Parcel Size⁴¹²
Blue line indicates location of the Central Oregon Canal.



⁴¹² Deschutes County Clerk's records.

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FIGURE 14b: Original Property Owners in Township 18, Range 13, Section 5.
Includes Dates of Purchase and Parcel Size⁴¹³ Blue line indicates location of the Central Oregon Canal.

| | | | |
|--|--|---|--|
| Oregon to William P. Erickson and John Pinoniemi 40 Acres 1914 | Oregon to John O'Donnell 80 Acres 1910 | Oregon to Theodore E. Olson 40 Acres 1913 | Oregon to Theodore E. Olson 40 Acres 1918 |
| Oregon to Oscar J. Erickson 40 Acres 1917 | | Oregon to Ivan R. Knotts 40 Acres 1910 | State Reclamation Commission to USA 120 Acres 1937 |
| Oregon to Esther Cockerhan 40 Acres 1913 | Oregon to Dora McNaught 80 Acres 1911 | Oregon to R. A. Puett 80 Acres 1922 | |
| Oregon to Charles Durand 40 Acres 1913 | | | |

⁴¹³ ibid

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FIGURE 14c: Original Property Owners in Township 18, Range 13, Section 8
Includes Dates of Purchase and Parcel Size. Blue Line Indicates Location of the Central
Oregon Canal.⁴¹⁴

| Township 18, Range 13, Section 8 | | |
|---|-------------------------------------|--|
| Oregon to Norman Wygand 40 Acres 1910 | Oregon to US 40 Acres 1937 | State to Quinton W. Hungate 160 Acres 1920 |
| Oregon to Ben Alsup 80 Acres 1922 | | |
| Oregon to Ben Alsup 40 Acres 1922 | Oregon to US 80 Acres 1937 | Oregon to Ada Hanson Stowell 160 Acres 1924 |
| Oregon to US 40 Acres 1937 | | |

⁴¹⁴ Deschutes County Clerk's Deeds.

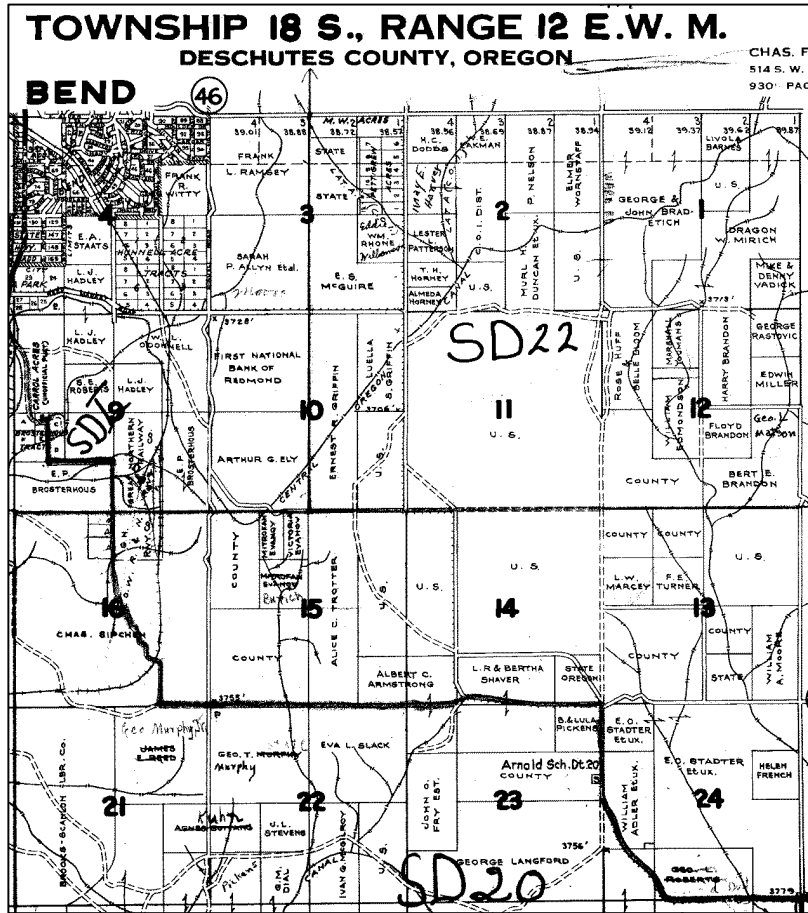
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FIGURE 15: Map dated 1935, Metsker's Atlas of Deschutes County, 16 square miles including T 18 S, R 12 E Section 1, indicating property ownership.



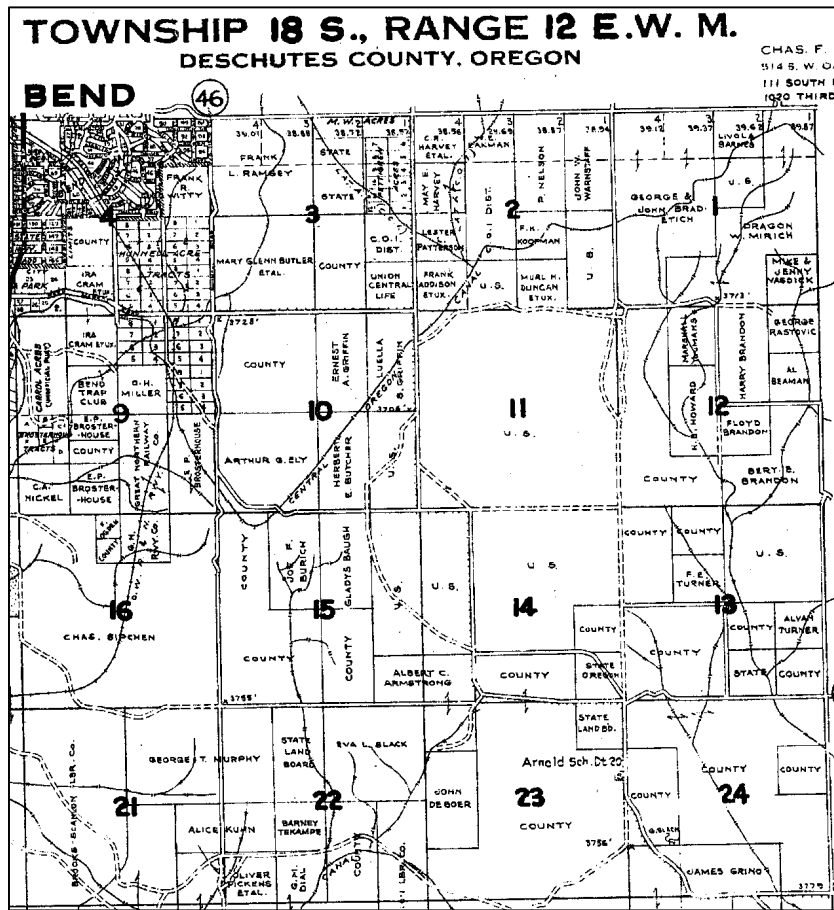
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FIGURE 16: Map dated 1944, Metsker's Atlas of Deschutes County, 16 square miles including T 18 S, R 12 E Section 1, indicating property ownership.



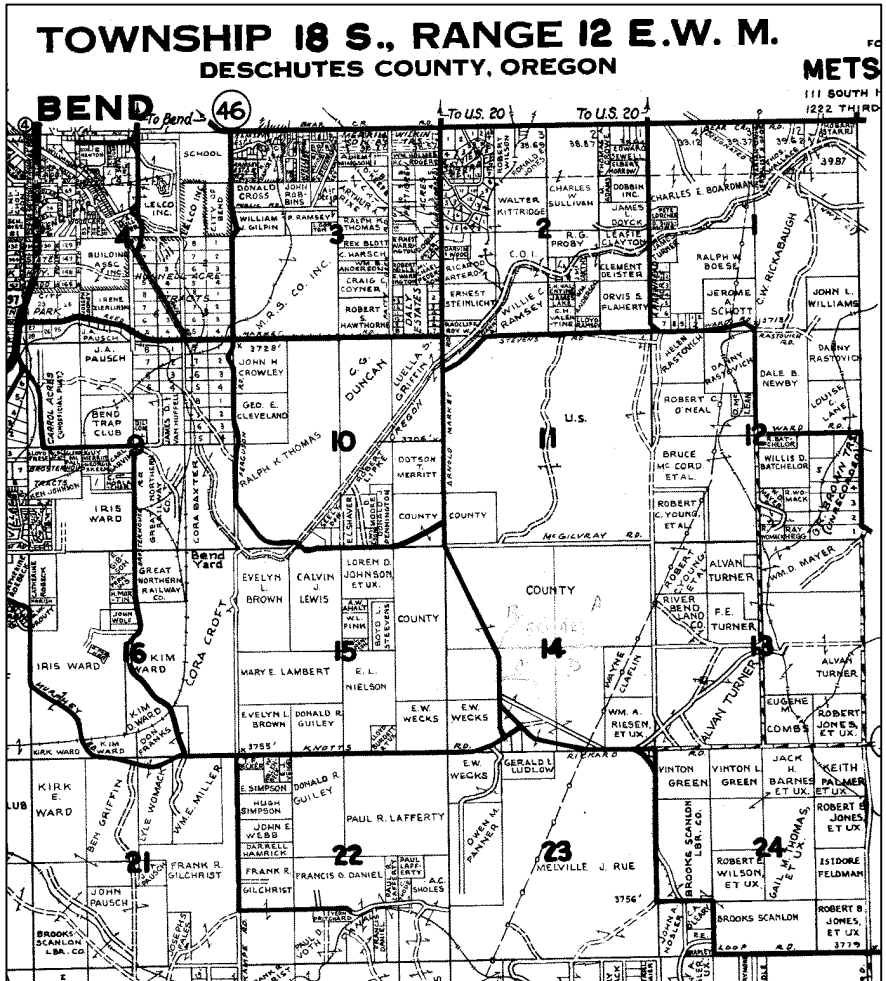
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FIGURE 17: Map dated 1972, Metsker's Atlas of Deschutes County, 16 square miles including T 18 S, R 12 E Section 1, indicating property ownership.



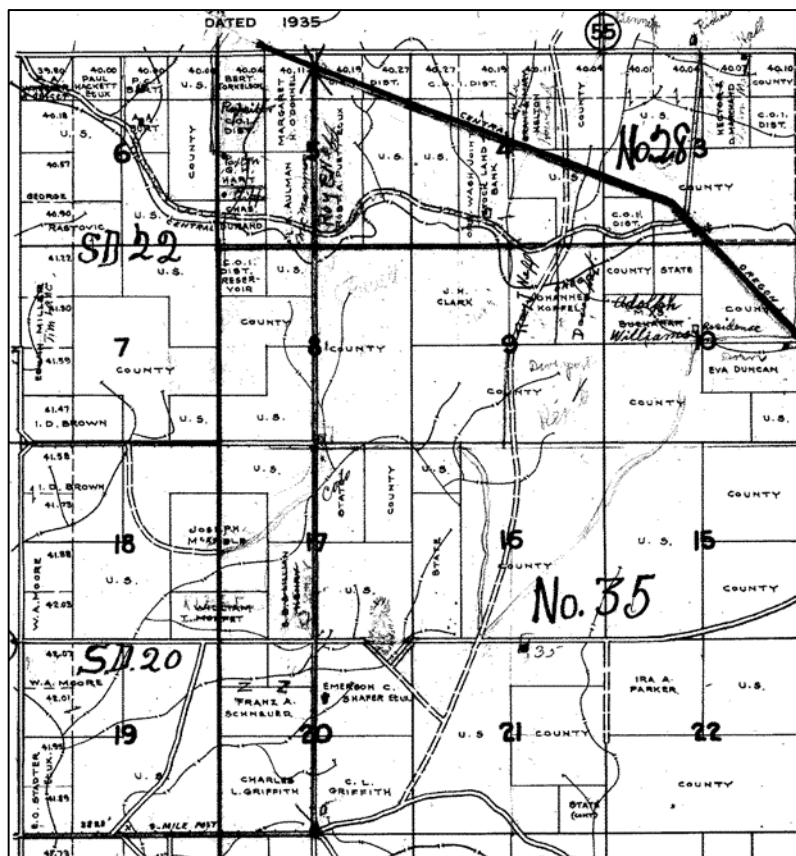
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FIGURE 18: Map dated 1935, Metsker's Atlas of Deschutes County, 16 square miles, including T 18 S, R 13 E Sections 5, 6, and 8, indicating property ownership.⁴¹⁵



⁴¹⁵ Handwriting is by the Deschutes County Clerk over time. Numbers are the school districts.

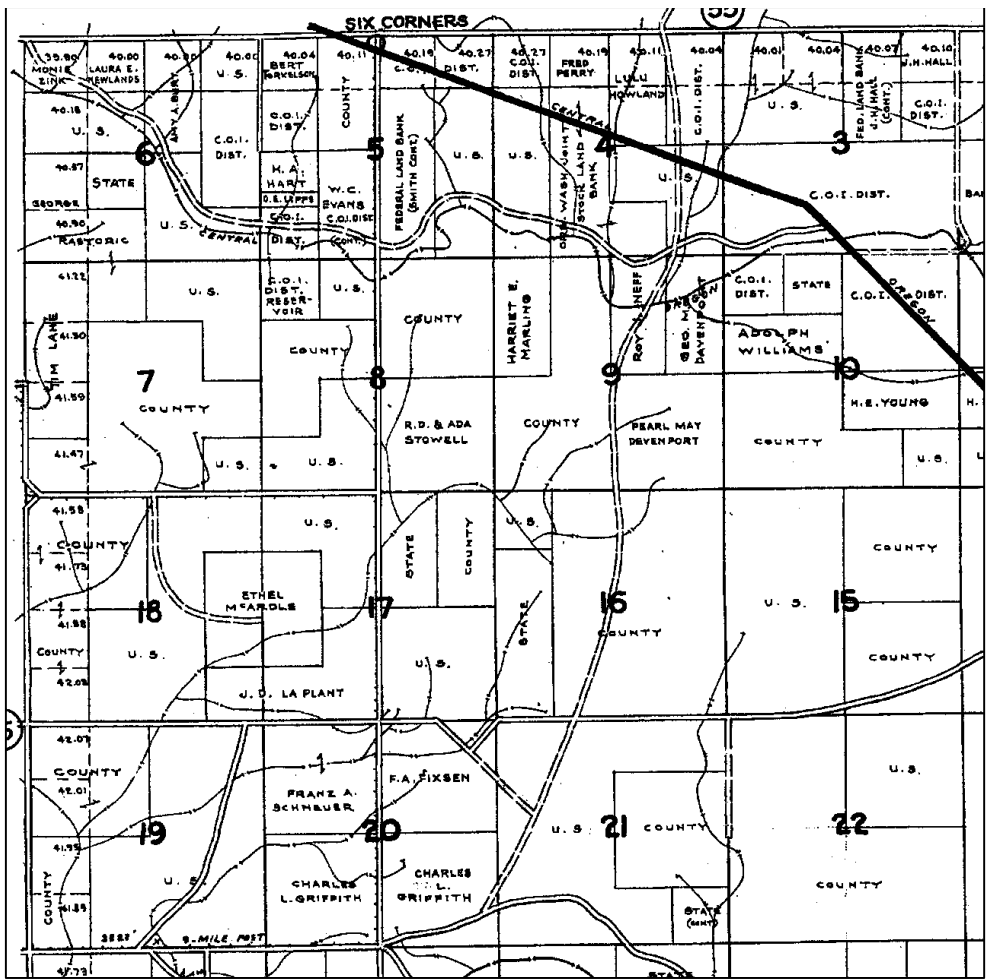
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FIGURE 19: Map dated 1944, Metsker's Atlas of Deschutes County, 16 square miles, including T 18 S, R 13 E Sections 5, 6, and 8, indicating property ownership.



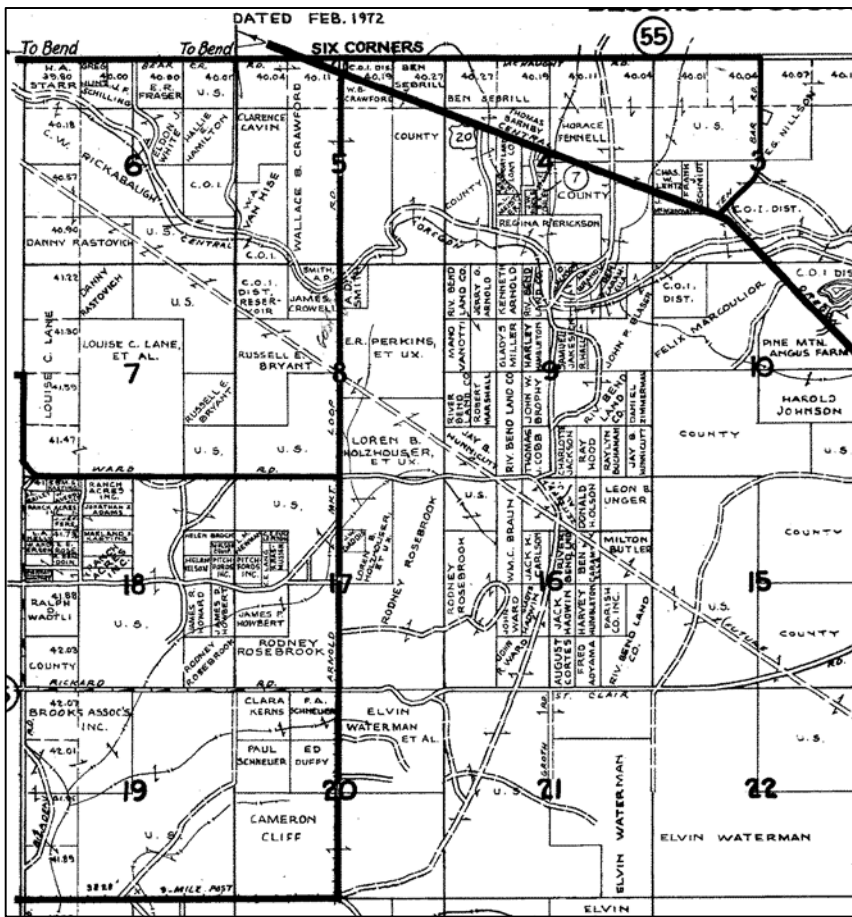
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FIGURE 20: Map dated 1972, Metsker's Atlas of Deschutes County, 16 square miles, including T 18 S, R 13 E Sections 5, 6, and 8, indicating property ownership.⁴¹⁶



⁴¹⁶ Arnold Market Loop Road is now named Gosney Road.

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FIGURE 21: 300-foot interval study of Central Oregon Canal Historic District, April 3, 2017

Central Oregon Canal Historic District Survey

Survey completed by Pat Kliewer, MPA; Don Kliewer, PE, civil engineer; Noah Walden, Gary and Suzanne Grund, Judy Hanson, and Aleta Warren.

THIS DATA DOES NOT REPRESENT A TOPOGRAPHIC SURVEY. THE DATA WAS COLLECTED FOR DESCRIPTIVE PURPOSES ONLY

TABLE 1

CENTRAL OREGON CANAL IN T17S R12E SECTION 15 WM

DATE: 4/2 & 3/2017 START 4:30PM END 6:30PM 2-Apr
9:00 AM 3PM 3-Apr

| FIELD CREW | | EQUIP | |
|--------------|-----------------|-----------------|--|
| RECORDER | D. KLIEWER | GARMIN GPS | |
| PHOTOS | P. KLIEWER | CANON CAMERA | |
| LT. TOP BANK | D. KLIEWER/JUDY | 100' CLOTH TAPE | |
| RT. TOP BANK | SUZZANE GRUND | 100' CLOTH TAPE | |
| LT TOE | P. KLIEWER | MEASURING POLES | |
| RT TOE | GARY GRUND | MEASURING POLES | |

DATUM WAS 84

| SECTION | SECT ID | NORTH DECIMAL | WEST DECIMAL | EAST TOP BANK ELEVATION | CANAL TOP WIDTH | LOW POINT | | BTM OF CANAL EL | HIGH POINT | | NORTH TOE | | SOUTH TOE | | NORTH BERM | REMARKS |
|---------|---------|---------------|--------------|-------------------------|-----------------|-----------|-------|-----------------|------------|-------|-----------|-------|-----------|-------|------------|--------------------------|
| | | | | | | DIST | DEPTH | | DIST | DEPTH | DIST | DEPTH | DIST | DEPTH | | |
| 117 | STA 0 | 44.04274 | 121.24350 | 3619 | 67.7 | 37 | 5.5 | 3614 | | | 14 | 5 | 53 | 6 | | WARD RD |
| 119 | STA 3 | 44.04319 | 121.24289 | 3619 | 52 | 25 | 4.75 | 3614 | | | 12 | 4.5 | 40 | 4.2 | 17 | |
| 120 | STA 6 | 44.04373 | 121.24223 | 3623 | 70 | 44 | 5.8 | 3617 | | | 12 | 5.3 | 48 | 5.5 | 18 | |
| 121 | STA 9 | 44.04404 | 121.24131 | 3628 | 58.9 | | | 3628 | 12.6 | 5.5 | | | 45 | 4 | 14 | |
| 122 | STA 12 | 44.04408 | 121.24032 | 3636 | 54.4 | 22 | 5.5 | 3631 | 14 | 4.3 | 10 | 4.5 | 43 | 4.8 | 16 | |
| 123 | STA 15 | 44.04388 | 121.23934 | 3638 | 60.3 | | | 3638 | 31.5 | 4.75 | 13 | 5.75 | 49 | 5.5 | 14.5 | |
| 124 | STA 18 | 44.04380 | 121.23837 | 3641 | 57.3 | 46 | 5.3 | 3636 | 31.5 | 4.75 | 10.5 | 4.75 | 46 | 5.3 | 23.5 | |
| 125 | STA 21 | 44.04373 | 121.23740 | 3641 | 59.2 | 24 | 6.25 | 3635 | | | 12 | 5.75 | 48 | 5.25 | 27 | |
| 126 | STA 24 | 44.04422 | 121.23691 | 3645 | 58 | 29 | 5.5 | 3640 | | | 15 | 4.75 | 46 | 5.3 | 18.5 | |
| 127 | STA 27 | 44.04477 | 121.23621 | 3648 | 57.8 | 34 | 4.25 | 3644 | 27.6 | 3.5 | 8 | 4.75 | 49 | 4.5 | 20 | |
| 128 | STA 30 | 44.04477 | 121.23524 | 3649 | 54.3 | 27 | 5.5 | 3644 | | | 13 | 4.75 | 45 | 5 | 23.5 | |
| 129 | STA 33 | 44.04509 | 121.23428 | 3650 | 61.8 | 20.5 | 5.75 | 3644 | | | 8 | 5.75 | 48 | 4 | 17.5 | |
| 130 | STA 36 | | | | | | | 0 | | | | | | | | |
| 131 | STA 39 | 44.04572 | 121.23384 | 3648 | 51.4 | 11 | 6.25 | 3642 | 27 | 4.75 | 11 | 6.25 | 46 | 3.5 | 22.5 | |
| 132 | STA 42 | 44.04642 | 121.23358 | 3647 | 57.6 | 12 | 5.5 | 3642 | | | 12 | 5.5 | 50 | 4 | 17 | |
| 133 | STA 45 | 44.04684 | 121.23268 | 3646 | 57.5 | 24 | 6 | 3640 | | | 9 | 5 | 50 | 4.5 | 21.6 | |
| 134 | STA 48 | 44.04750 | 121.23223 | 3653 | 58.7 | 22.5 | 5.7 | 3647 | | | 10 | 5.25 | 46 | 6 | 16.5 | |
| 135 | STA 51 | 44.04755 | 121.23117 | 3657 | 59.7 | | | 3657 | | | 11 | 8 | 43 | 8 | 14 | HEAD GATES |
| 136 | STA 54 | 44.04790 | 121.23029 | 3661 | 61.2 | 44 | 6.5 | 3655 | | | 8.3 | 5.75 | 52 | 6 | 16 | FOOT BRIDGE W/ |
| 137 | STA 57 | 44.49310 | 121.22938 | 3657 | 55.5 | 24 | 5 | 3652 | | | 6.8 | 4 | 46 | 4.5 | 14 | COC 13 GATE |
| 101 | STA 60 | 44.04884 | 121.22865 | 3619 | 61.8 | 27.0 | 3.5 | | 7 | 2 | 7 | 2 | 45.8 | 1.3 | | GRUND PROP LINE |
| 102 | STA 63 | 44.04937 | 121.22788 | 3619 | 78.1 | 36.5 | 5.0 | 3614 | | | 6.7 | 3.25 | 67.8 | 4.5 | | |
| 103 | STA 66 | 44.05000 | 121.22729 | 3619 | 75.6 | 50.0 | 7.2 | 3612 | | | 11 | 5.25 | 57.8 | 5 | | |
| 104 | STA 69 | 44.05050 | 121.22665 | 3616 | 56.2 | 34.6 | 6.5 | 3610 | | | 9 | 5.5 | 50 | 5 | | B LAT GATE |
| 105 | STA 72 | 44.05066 | 121.22568 | 3614 | 45.3 | 24.0 | 5.0 | 3609 | | | 6 | 4.5 | 38.4 | 4.7 | | |
| 106 | STA 75 | 44.02083 | 121.22480 | 3613 | 43.4 | 19.5 | 7.3 | 3606 | | | 8.6 | 6.5 | 33.5 | 6.3 | | B-1 LAT B-1-1 GATE |
| 107 | STA 78 | 44.05025 | 121.22424 | 3612 | 43.5 | 22.0 | 5.3 | 3607 | | | 8 | 4.75 | 37 | 4.2 | | |
| 108 | STA 81 | 44.04961 | 121.22388 | 3611 | 51.5 | 22.0 | 6.3 | 3605 | | | 10 | 5.5 | 39.6 | 5.5 | | |
| 109 | STA 84 | 44.05937 | 121.22298 | 3614 | 47.0 | 21.0 | 5.0 | 3609 | | | 8.9 | 4.75 | 41 | 4.5 | | |
| 110 | STA 87 | 44.04897 | 121.22219 | 3618 | 60.3 | 42.0 | 5.8 | 3612 | | | 9 | 5.5 | 53.6 | 4 | | |
| 111 | STA 90 | 44.04829 | 121.22182 | 3616 | 52.3 | 22.0 | 7.3 | 3609 | | | 12.5 | 6.5 | 41 | 7.3 | | |
| 112 | STA 93 | 44.04792 | 121.22093 | 3616 | 51.7 | 27.0 | 9.0 | 3607 | | | 12.6 | 8 | 32.6 | 8 | | |
| 113 | STA 96 | 44.04733 | 121.22023 | 3615 | 52.3 | 23.0 | 5.3 | 3610 | | | 10 | 4.75 | 39.6 | 5.5 | | |
| 114 | STA 99 | 44.04709 | 121.21935 | 3613 | 64.2 | 25.0 | 6.0 | 3607 | | | 3.5 | 2.25 | 53 | 6 | | |
| 138 | STA 102 | 44.04726 | 121.21803 | 3623 | 58.8 | | | 3623 | | | 19.5 | 9 | 41 | 5.8 | 24 | |
| 139 | STA 105 | 44.04693 | 121.21717 | 3627 | 50.2 | | | 3627 | 21 | 2.75 | 6 | 2.75 | 42.6 | 3.3 | 19.5 | |
| 140 | STA 108 | 44.04649 | 121.21644 | 3625 | 51.8 | 14 | 6 | 3619 | 22.6 | 2.5 | 8 | 4.5 | 7 | 3.5 | 16 | |
| 141 | STA 111 | 44.04602 | 121.21581 | 3622 | 45.2 | 30 | 4.8 | 3617 | 21 | 3.3 | 8 | 2.5 | 36 | 4.5 | 20 | COC 14.1 GATE |
| 142 | STA 114 | 44.04570 | 121.21495 | 3619 | 49 | 17.5 | 5.25 | 3614 | | | 7.5 | 5 | 41 | 2.5 | 19.5 | FLUME 215' LONG, 4.8'D |
| 143 | STA 117 | 44.04519 | 121.21438 | 3621 | | | | 3621 | | | | | | | | 13.5' W: 2.8' WATER LINE |
| 144 | STA 123 | 44.04429 | 121.21349 | 3616 | 55.3 | 24 | 5 | 3611 | | | 12.5 | 3.5 | 44 | 4.5 | 20 | C-LAT GATE COC 15 |
| 145 | STA 126 | 44.04382 | 121.21288 | 3613 | 57.3 | 21.5 | 3.25 | 3610 | | | 3 | 3.5 | 52 | 3.5 | 16 | COC 16 GATE |
| 146 | STA 129 | 44.04327 | 121.21234 | 3611 | 55 | 22 | 5.25 | 3606 | | | 9.5 | 4.5 | 42 | 5.5 | 17.5 | |
| 147 | STA 132 | 44.04269 | 121.21178 | 3609 | 54.8 | MID | 5 | 3604 | | | 8 | 4.5 | 47 | 5 | 16.5 | |
| 148 | STA 135 | 44.04214 | 121.21121 | 3608 | 54.8 | | | 3608 | | | 8 | 4 | 47 | 3.5 | 21 | |
| 149 | STA 138 | 44.04150 | 121.21104 | 3606 | 45.4 | 19 | 4.75 | 3601 | | | 7.5 | 4.25 | 37 | 4.3 | 17 | |
| 150 | STA 141 | 44.04070 | 121.21101 | 3604 | 48 | 19 | 5.25 | 3599 | | | 11 | 5 | 34.6 | 5 | 23.5 | |
| 151 | STA 144 | 44.04047 | 121.21024 | 3597 | 49 | | | 3597 | | | 10 | 5.25 | 40 | 4.3 | 17 | NEAR PARKS AND REC PIL |
| 152 | STA 147 | 44.03984 | 121.20990 | 3594 | 47.2 | 20.5 | 4.5 | 3590 | | | 9 | 4.5 | 37 | 4 | 17 | |
| 153 | STA 150 | 44.03917 | 121.20998 | 3594 | 49.9 | 23 | 7 | 3587 | | | 16 | 6 | 37 | 7 | 24 | |
| 154 | STA 153 | 44.03880 | 121.20918 | 3590 | 33.8 | | | 3590 | 14 | 3.75 | 3.5 | 4 | 28 | 5 | 27 | |
| 155 | STA 156 | 44.03896 | 121.20834 | 3580 | 4706 | | | 3580 | | | 8.5 | 4.5 | 35 | 4 | 24 | |
| 156 | STA 159 | 44.03909 | 121.20747 | 3575 | 52.9 | | | 3575 | | | 8 | 4.5 | 42 | 3.5 | 24 | |
| 157 | STA 162 | 44.03906 | 121.20651 | 3572 | 58 | | | 3572 | 24 | 4 | 9.6 | 4.5 | 45.6 | 5 | 18 | |
| 158 | STA 165 | 44.03888 | 121.20559 | 3572 | 57.3 | | | 3572 | 23 | 3.5 | 5 | 3.25 | 51 | 3 | 22 | |
| 159 | STA 168 | 44.03859 | 121.20474 | 3570 | 41.7 | | | 3570 | 26 | 3 | 8 | 5 | 37 | 3.5 | 18.5 | |
| 160 | STA 171 | 44.03846 | 121.20384 | 3565 | 42.4 | | | 3565 | 18 | 5.5 | 9.5 | 5 | 33 | 6 | 17.5 | 3 GATES 48" DIA |
| 161 | STA 174 | 44.03826 | 121.20297 | 3562 | 48.5 | 28 | 5 | 3557 | | | 4 | 2.25 | 37 | 4.8 | 25 | C-3 GATE |
| 162 | STA 177 | 44.03790 | 121.20216 | 3562 | 41.4 | 14 | 6.5 | 3556 | | | 10 | 6.25 | 29.6 | 6.8 | 25 | |
| 163 | STA 180 | 44.03756 | 121.20135 | 3552 | 39.7 | 12 | 4 | 3548 | | | 2.9 | 2 | 27 | 2.5 | 22 | |
| 164 | STA 183 | 44.03728 | 121.20049 | 3549 | 37.3 | 21 | 5.25 | 3544 | | | 8.5 | 4.5 | 30 | 4.5 | 21 | |
| 165 | STA 186 | 44.03756 | 121.19968 | 3549 | 46.4 | 23 | 8.8 | 3540 | | | 8.5 | 5.25 | 32 | 7 | 22 | |
| 166 | STA 189 | 44.03788 | 121.19888 | 3551 | 49.6 | | | 3551 | | | 11 | 7 | 37 | 7 | 18.5 | |
| 167 | STA 192 | 44.03787 | 121.19798 | 3552 | 56.2 | 22 | 3.25 | 3549 | | | 0 | 1.5 | 46.5 | 5.25 | 15 | COC 18 GATE |
| 168 | STA 195 | 44.03748 | 121.19717 | 3555 | 50.8 | 27 | 5.75 | 3549 | | | 6.5 | 3.5 | 38 | 5.5 | 16 | CUT SIDE |
| 169 | STA 198 | 44.03702 | 121.19652 | 3554 | 50.8 | 27 | 6 | 3548 | | | 9.5 | 6 | 44 | 5.5 | 19 | |
| 170 | STA 201 | 44.03645 | 121.19609 | 3556 | 51 | MID | 9 | 3547 | | | 14 | 8 | 30 | 8 | 14 | |
| 171 | STA 204 | 44.03584 | 12.19576 | 3559 | 45.3 | 22 | 7.25 | 3552 | | | 12.5 | 6.75 | 32 | 6.75 | 16 | |
| 172 | STA 207 | 44.03535 | 121.19508 | 3559 | 43.7 | 16 | 6.25 | 3553 | | | 4 | 3.5 | 33 | 5.5 | 23 | |
| 173 | STA 210 | 44.03517 | 121.19416 | 3560 | 43.9 | 20 | 7 | 3553 | | | 11 | 6.25 | 30.5 | 6.75 | 16 | |
| 174 | STA 213 | 44.03534 | 121.19344 | 3563 | 58.5 | | | 3563 | | | 5.5 | 4 | 45.5 | 5.5 | | GOSNEY BRIDGE |

+73

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number Additional Documentation Page 166

| |
|--|
| Central Oregon Canal Historic District |
| Name of Property |
| Deschutes Co., OR |
| County and State |
| Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 |
| Name of multiple listing (if applicable) |

FIGURE 22: Aerial Photo of Alfalfa Community, 2015 Imagery, 2017 Google earth



United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

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| |
|--|
| Central Oregon Canal Historic District |
| Name of Property |
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| County and State |
| Carey and Reclamation Acts Irrigation Projects in Oregon, 1901-1978 |
| Name of multiple listing (if applicable) |

FIGURE 23: Aerial Photo of Powell Butte Community, 2015 Imagery, 2017 Google earth



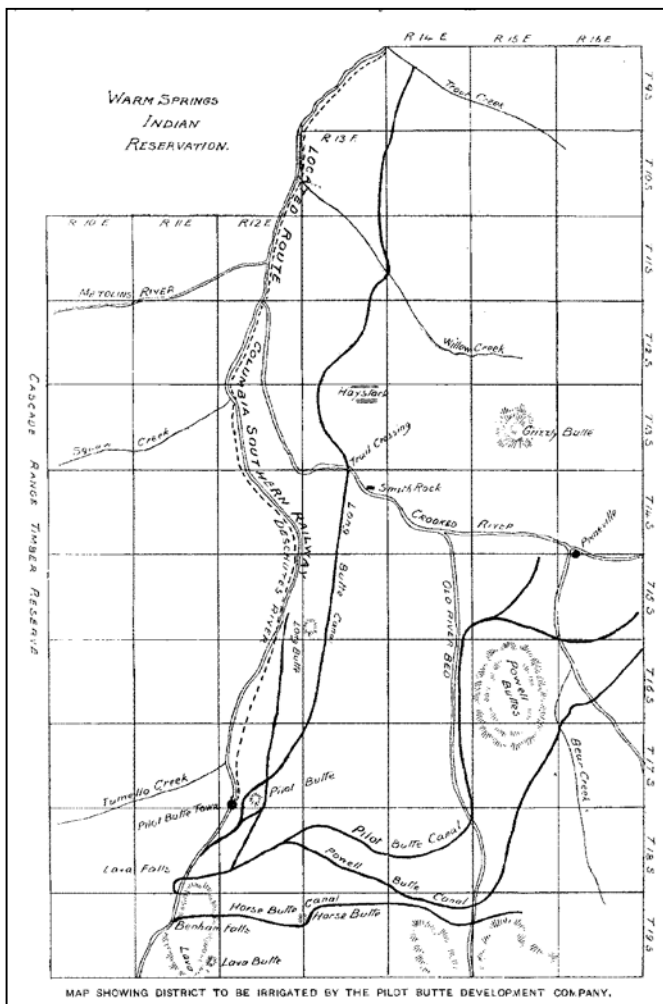
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number Additional Documentation Page 168

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| Central Oregon Canal Historic District |
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FIGURE 24: Concept Map drawn for Alexander Drake in 1900 of the possible irrigation systems and a railroad on the east side of the Deschutes River, covering an area 36 miles wide by 66 miles long between Lava Butte on the south and Trout Creek on the north. ^{cdxvii}



^{cdxvii} Bowman Museum, Prineville, OR

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 1 of 20: Looking west to the Ward Road Bridge on the western boundary of the historic district. Canal is 68' wide and 5.' deep at this point with a cut south side and a low berm on the north side.



Photo 2 of 20: Looking west toward west end of historic district, with Cascade Mountain peaks in the distance.

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 3 of 20: Looking northwest across irrigated land from top of tall berm along north side of canal.



Photo 4 of 20: Looking east with a tall berm with rip-rap on the north side in a deep, narrow portion of the canal that holds water year around.

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 5 of 20: Looking north from top of berm into shared delivery gate and irrigation pond, with PVC pipe and electric pump coming out of pond.



Photo 6 of 20: Property owners walk on ditch rider truck wheel tracks on grass covered north berm along canal under Bonneville Power Administration power transmission poles crossing over the canal.

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 7 of 20: Looking east from the Bear Creek Ranch Bridge, cut on the south side and berm on north side.



Photo 8 of 20: Heavily silted canal bed holds water year around, looking east.

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 9 of 20: Stacked rock on the bermed north side of canal near middle of the historic district.



Photo 10 of 20: Looking east from canal bed with a cut on the south side and tall berm on the north side.

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 11 of 20: Looking west in Burt's Chute with ditch rider road on right side.



Photo 12 of 20: Looking west into the drop from Burt's Chute into pond.

Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR



Photo 13 of 20: Looking east in shallow, wide canal bed with cuts on both sides in area of scrub lands.



Photo 14 of 20: Shallow canal bed with cuts on both sides, looking east through scrub land.

Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR



Photo 15 of 20: Looking south at a pentagon-shaped drill hole for blasting rock in the canal bed.



Photo 16 of 20: Looking east at lava flows in canal bed.

**Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes County, OR**



Photo 17 of 20: Looking east near Teal Road with lava flows in bed.



Photo 18 of 20: Uneven canal bed with cut sides through scrub land, looking west.

Central Oregon Canal Historic District (Ward Road – Gosney Road Segment)
Deschutes Co., OR



Photo 19 of 20: Carefully stacked rock on steep south side slope, looking east.



Photo 20 of 20: Looking east to Gosney Road Bridge at east end of historic district. Tall berms are on both sides, north side is silted. Canal is 59' wide and 5.5' deep.



United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
Columbia-Cascades Area Office
1917 Marsh Road
Yakima, WA 98901-2058

IN REPLY REFER TO:

CCA-1000
2.1.4.17

October 16, 2018

Ms. Christine Curran, Deputy
State Historic Preservation Office
725 Summer St. NE, Suite C
Salem, OR 97301-1266

Subject: Central Oregon Canal: Ward to Gosney National Register Nomination

Dear Ms. Curran:

It is my understanding that the *Central Oregon Canal: Ward to Gosney National Register Nomination*, which was originally prepared and submitted by landowners along that particular stretch of canal, has been substantially rewritten to tie into and utilize the registration requirements of the Multiple Property Document (MPD), *Carey and Reclamation Acts Irrigation Project in Oregon, 1901-1978*, which was approved by the National Park Service in July 2017. Central Oregon Irrigation District (COID), which has opposed previous versions of the nomination, is proposing to support this most recent iteration if it incorporates the requirements of the MPD.

The 2014 Memorandum of Agreement (MOA No. R14MA13733) between the Bureau of Reclamation, the Oregon State Historic Preservation Office (SHPO), and COID for piping of a segment of the I-Lateral, specified the development of an MPD (3.B.2, pg. 4) that would be used for selecting segments of both the Pilot Butte Canal and Central Oregon Canal to be nominated to the National Register of Historic Places (NRHP) (3.B.3, pg. 5), and that “the District, in consultation with Reclamation and the SHPO, shall select appropriate, contributing segments to be listed in the NRHP through the MPD.”

Reclamation supports the cooperative spirit of COID and the Ward to Gosney landowners to submit a revised National Register nomination that reflects the interests of both parties. However, Reclamation, as a signing party to the MOA, would appreciate the opportunity to review and offer comments/edits on this nomination. To that end, enclosed with this letter are comments regarding this most recent nomination. Assuming that it is revised to incorporate these comments and edits, Reclamation does not dispute that the Ward to Gosney nomination meets the registration criteria as specified in the MPD, meets COID’s mitigation obligations as specified in the MOA, and fulfills the intent of the programmatic agreement current being developed between Reclamation, COID, and the Oregon SHPO.

Thank you in advance for your attention. I understand that the State Advisory Council for Historic Preservation will be meeting to review the revised nomination on Oct 19, 2018. If you need additional information, please contact Ms. Chris Horting-Jones, Archaeologist for the Bend Field Office, at 541-389-6541, extension 236 or chortingjones@usbr.gov.

Sincerely,

A handwritten signature in blue ink that reads "Dawn Wiedmeier". The signature is fluid and cursive, with the first name "Dawn" being larger and more prominent than the last name "Wiedmeier".

Dawn A. Wiedmeier
Columbia-Cascades Area Manager

Enclosure

cc: Mr. Craig Horrell
Manager/Secretary
Central Oregon Irrigation District
1055 Southwest Lake Court
Redmond, OR 97756
(w/enclosure)

October 19, 2018

State Advisory Committee for Historical Preservation
Oregon Parks and Recreation Department
725 Summer St. N.E. Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District: Ward Road to Gosney Road Nomination

Dear SACHP members;

I am writing to you as one of the property owners that nominated this segment of the Central Oregon Canal for historic preservation. On June 22nd, our nomination was heard in Redmond, Oregon by SACHP. It is my understanding that there were two new committee members at this meeting, while the chairperson and a couple of senior committee members were absent, however I am unable to confirm this as the minutes for this meeting are not provided publicly as of the date of this letter.

I am writing to you because the process and handling of our nomination that the nominators witnessed was concerning. It is my understanding that SACHP hearings should follow approved procedures for land use or administrative hearings. There was a strong appearance of impropriety and unfairness. Since our nomination was considered "controversial" with an opposition that has fought this nomination since its submittal, the hearing should have been as follows: 1) applicants, 2) those opposed, 3) applicant's rebuttal, 4) closing. Everyone needs to be heard with equal time, except applicant, who has the burden of proof and needs time to show they meet the burden of proof. Equity must be something everyone walks away with. The Applicants were NOT offered a rebuttal and the Opposed were given the opportunity to have an extended commentary period not offered to the Applicants.

I would appreciate these concerns being shared and discussed among the committee members. New committee members may have come away from that meeting thinking that this was standard procedure and the record should be corrected. In addition, our nomination will be heard again on October 19th, and we would like to avoid any treatment we witnessed this round.

1. Property owners were asked to pick representatives: This nomination was not made by "a group", but by several property owners who live in the same neighborhood. The historic district is over 3 miles long and many other residents from around Bend came out to support the nomination. We are not an official group or organized, and yet SACHP told us we had to "select" up to three people to speak on everyone's behalf. This was very restrictive and forced us on-the-spot, to choose people who would somehow be able to channel all the individual's thoughts and comments. These "representatives" were then given 30 mins to speak in totality.

On the other hand, with one opposing party (an organization, Central Oregon Irrigation District "COID") was afforded their 30 minutes to comment. Suddenly, an "expert" from California appeared and he was afforded an additional 30-45 minutes to obfuscate and muddy the discussion and analysis of the nomination.

SACHP should not have forced individuals to represent others during the comment period, and should not have given COID and their “expert” unequal commentary time.

2. SACHP seated an opposing party’s “expert” at the tables with staff and committee members for his presentation. After comments were over, COID and SHPO announced there was an “expert” from California. This “expert’s” main point of being at the hearing, was to undermine the nomination by mixing in a Multiple Property Document “MPD” into the process that wasn’t even approved by National Registry at the time of the initial nomination.

When he first spoke, placed between SHPO staff and SACHP committee members and facing the attendees, I thought he had a powerpoint presentation. In fact he did not; he opened his laptop and began speaking. He went on to speak for approximately 45 minutes about the MPD and the nomination.

To be clear, the MPD was not placed on the National Parks register at the time we initially made this nomination. When it was registered later that summer, we were not asked to tie the MPD into the nomination. SHPO asked us to significantly revise the nomination twice and never recommended that we tie the MPD into this nomination. This nomination went through four hearings, two revisions and not one did COID or SHPO raise the concern of the MPD tying into this nomination. Yet this “expert” made the case to SACHP that it had to be addressed which worked because the committee members present went on to focus on this topic and required yet again, more revisions.

Of great concern was that SACHP members did not ask for commentary from SHPO staff on the MPD matter who was handling revision requests from the beginning, and they didn’t ask to hear from Pat Kliewer about her expertise on the matter. Ms. Kliewer was not heard from again at this SACHP meeting. **The Applicants were not offered a rebuttal.**

In summary, we very much hope SACHP can demonstrate commitment to fairness in this October 19 hearing. We now face unity with the nomination and the Opposed party has committed to support the nomination. However, it is important that the past behavior be addressed so that future parties will have fair hearings and consistent treatment from committee members. This takes up the time and resources of every attendee when nominations are treated this way.

Sincerely,

Jenna Walden
61885 Somerset Dr, Bend OR

Cc Pat Kliewer
SHPO staff
Suzanne & Gary Grund, Judee Hanson, Tony Licrita

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61670 Teal Rd, Bend, OR, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

Curt Baney 1-5-18
Sign Full Legal Name Date

Curt Baney
Print Full Legal Name

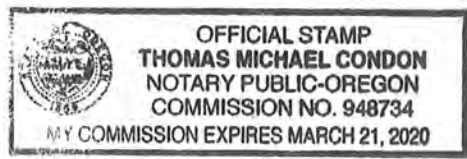
Legal Name(s) on Title if Different from Above (Printed)

61330 Gosney Rd Bend OR 97702
Mailing Address - Street City State Zip

State of Oregon
County of Deschutes

Signed or attested before me on JANUARY 5, 2018 by

Thomas M Condon
Notary Public – State of Oregon



My Commission expires: MARCH 21, 2020

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130500 Tax Lot: 01200, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature]

10.11.17

Sign Full Legal Name

Date

CRALC HORREAU

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) or Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756

Mailing Address - Street

City

State

Zip

State of Oregon

County of Multnomah

Signed or attested before me on October 11, 2017 by

[Signature]

Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 181201B0 Tax Lot: Canal Lot, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

10.11.17

Sign Full Legal Name

Date

CRAIG HORIZELL

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) on Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND, OR 97756

Mailing Address - Street

City

State

Zip

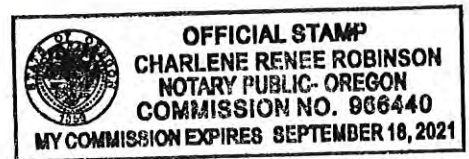
State of Oregon

County of Multnomah

Signed or attested before me on Oct 11, 20 17 by

[Handwritten Signature]

Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130300 Tax Lot: 01600, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

10.11.17

Sign Full Legal Name

Date

CRAIG HORZELL

Print Full Legal Name

Central Oregon Irrigation District

Legal Name(s) or Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756

Mailing Address - Street

City

State

Zip

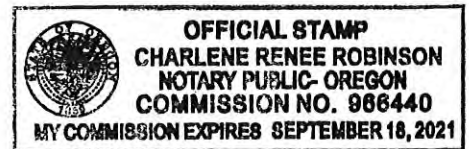
State of Oregon

County of Multnomah

Signed or attested before me on Oct. 11, 20 17 by

[Handwritten Signature]

Notary Public – State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at TRS: 18130800 Tax Lot: 00500, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Signature] 10.11.17
Sign Full Legal Name Date

CRAIG HORZELL
Print Full Legal Name

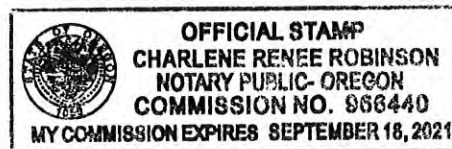
Central Oregon Irrigation District
Legal Name(s) on Title if Different from Above (Printed)

1055 SW LAKE CT REDMOND OR 97756
Mailing Address - Street City State Zip

State of Oregon
County of Multnomah

Signed or attested before me on Oct. 11, 20 17 by

[Signature]
Notary Public - State of Oregon



My Commission expires: Sept. 18, 2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

To the State Historic Preservation Office:

With this notarized statement, I certify that I am the sole or partial owner of the property located at 61862 DOBBIN ROAD, which is a private property located in the proposed Central Oregon Canal Historic District in Deschutes County, Oregon, and I object to the listing of said property in the National Register of Historic Places.

[Handwritten Signature]

6/18/2018

Sign Full Legal Name

Date

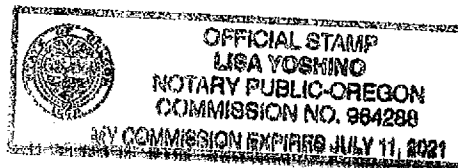
JAY CHRISTOPHER DAVENPORT

Print Full Legal Name

Legal Name(s) on Title if Different from Above (Printed)

61862 DOBBIN ROAD BEND OR 97702
Mailing Address - Street City State Zip

State of Oregon
County of Deschutes



Signed or attested before me on June 18, 2018 by

[Handwritten Signature]
Notary Public - State of Oregon

My Commission expires: 7/11/2021

Objections must be notarized by a Notary Public to be valid.

Mail to: Oregon Parks and Recreation Department
State Historic Preservation Office
ATTN: Tracy Zeller
725 Summer Street NE, Suite C
Salem, OR 97301

ALLEN Jason * OPRD

From: ZELLER Tracy * OPRD
Sent: Wednesday, June 20, 2018 12:43 PM
To: ALLEN Jason * OPRD
Subject: FW: Central Oregon Canal Historic District - Notice of Objection to proposed listing in the National Register of Historic Places
Attachments: Notice of Objection to Central Oregon Canal Historic District - Jay Davenport - 61862 Dobbin Road.pdf

Will you please respond to him?

Thanks.

Tracy Zeller, Executive Assistant
National Register & Grants Assistant
State Historic Preservation Office
725 Summer Street NE, Suite C
Salem, OR 97301
(Phone) 503-986-0690
(Fax) 503-986-0793
Tracy.Zeller@oregon.gov

From: DAVENPORT Jay [<mailto:Jay.DAVENPORT@odot.state.or.us>]
Sent: Monday, June 18, 2018 12:51 PM
To: ZELLER Tracy * OPRD
Cc: 'Jay Davenport'
Subject: Central Oregon Canal Historic District - Notice of Objection to proposed listing in the National Register of Historic Places

Re: Central Oregon Canal Historic District - Notice of Objection to proposed listing in the National Register of Historic Places

Tracy,

I wanted to get this objection statement to you before Thursday's meeting. I put the original in the mail today but it will not be picked up till tomorrow and probably not in time for the board's meeting.

The reasons for my objections as follows:

If the canal gets listed, the irrigation district is prevented from making improvements for the section on my and adjacent properties. Improvements (piping, lining, fencing, etc.) could do the following:

- Improve the safety along the canal which consists of rubblized rock and steep banks, fast moving water, dangerous diversion structures.
- Reduce liability for property owners
 - Prevent increased homeowners insurance due to listing.
- Improved delivery of irrigation water
- More efficient irrigation water delivery (i.e. piping mitigates seepage and evaporative losses, it is well know the current system has significant water loss)
 - Possibly allowing for increased summer flows for the Middle Deschutes

- Systematic improvements projects (SIPs) may also stop the spread of invasive weeds throughout the county...which the seed travels along the open channel and into diversions and irrigation systems (for example my pressurized irrigation water delivered by Avion always has seed in it)
- The canal is a utility and should not be considered for listing. The application for consideration adequately captures historical information about this canal but protecting it in the condition it is in is a gross negligence by public for maintaining a vital resource (water) to Central Oregon.

Specifically for my property, it lies topographically below the bottom of the canal. COID did improvements on the embankment due to seepage onto my property

Please let me know you received my email.

Thanks!

Jay Davenport, P.E.

Region 4 Specifications Writer and Roadway Designer

Oregon Department of Transportation – Highway Division – Region 4

63055 N. Highway 97

Bend, OR 97703

541.388.6383

Jay.Davenport@ODOT.state.or.us



MEMORANDUM

DATE: May 29, 2018

TO: State Advisory Committee on Historic Preservation

FROM: Deschutes County Historic Landmarks Commission
Zechariah Heck, Associate Planner

RE: Central Oregon Canal Nomination to the National Register of Historic Places

The State Historic Preservation Office (SHPO) asked the Deschutes County Historic Landmarks Commission (HLC) to review a nomination of a section of the Central Oregon Canal to the National Register of Historic Places. The proposed district is located east of the city of Bend and generally bound by Ward Road to the west and Gosney Road to the east.

The HLC held several public meetings to receive public comments, review the nomination and complete the National Register Nomination Evaluation Sheet. On May 14, 2018, **the HLC voted unanimously in support of listing the nomination on the National Register of Historic Places.** A recording of the May 14 HLC meeting is available here: <http://deschutescountyor.igq2.com/Citizens/Default.aspx>. Attached to this memorandum is the completed evaluation sheet as well as supporting narratives from several members of the HLC. Furthermore, the following text summarizes the comments provided by the HLC on each review criterion on the National Register Nomination Evaluation Sheet. It is important to note that while concerns were raised in most categories below, the HLC voted unanimously or with one dissenting vote that each criterion had been met, demonstrating that the evidence to support nominating this segment of the canal outweighed the concerns.

Integrity: All commissioners voted “okay” for this criterion. There were concerns about material alterations affecting the historical integrity of the Central Oregon Canal. Nonetheless, while the nomination recognizes canal alterations, its historical integrity remains intact. There was no clear evidence contrary to the nomination that raised concerns of the canal’s integrity. The spreadsheet included within the nomination was helpful in understanding its historical integrity.

Description: All commissioners voted “okay” for this criterion. There was a concern about references to the Pilot Butte Canal and why it was included in the nomination. Nonetheless, the graphics and referenced documents provided in the nomination adequately describe the Central Oregon Canal’s history and reasons it should be listed in the National Register.

Significance and Context: Three of four commissioners voted “okay” for this criterion; one voted for “concerns”. Sufficient information regarding the historical significance and context of the Central Oregon Canal is provided in the nomination. For example, historic stories of the canal and how it help settle Central Oregon are noted. Further, there are many books available that provide stories speaking to the significant role the canal played in settlement of the area. Overall, the nomination provides a snapshot in time that adequately provides a context of the history of the canal and why it is historically significant.

A concern raised regarding the nomination is that it only lists the Ward Road to Gosney Road section of the Central Oregon Canal, instead of the entire canal. Also, the nomination does not identify a clear period of significance; there are references to many periods which leads to confusion. The Multiple Property

Document (MPD) provided by the Central Oregon Irrigation District clearly states a period of significance for the entire canal. However, the MPD ignores some of the contributing factors contained within the Ward Road to Gosney Road section. Statements within the nomination that irrigation canals alone led to settlement in Bend also raised concerns. There is more to the settlement history of Bend and Central Oregon than just the irrigation canals.

Facts and Sources: Three of four commissioners voted “okay” for this criterion; one voted for “concerns”. A majority of the commission stated the nomination contains sufficient facts and sources that support listing of the Central Oregon Canal. However, some contributing factors are not clearly defined. For example, dating of equipment should be verifiable, but the preparer of the nomination did not indicate the process in determining conclusions on contributing factors. There was also confusion about the engineer of the Central Oregon Canal; the nomination does not clearly indicate who the actual engineer was. Lastly, the nomination contains many typographical errors that should be remedied.

Supporting Materials: All commissioners voted “okay” for this criterion. One commissioner expressed the nomination could benefit from additional historic photographs.

General Comments: Several commissioners expressed concerns about the conflict between historic preservation and community needs like upgrading utilities for efficiency and environmental protection. The HLC indicated the Central Oregon Canal is worthy of preservation, but stated they understood that listing in the National Register creates a management burden. One commissioner encouraged all of the parties involved to come up with a creative solution that would preserve the canal while addressing continual management responsibilities. Another commissioner stated that contrary to Central Oregon Irrigation District’s expressed determination and need for efficient management of the canal, there is clearly public support for preserving, rather than piping the canal.

Commissioners also commented on a desire for public access to the historic district. It is important to integrate community access with historic preservation for learning and educational experiences. Public access should be subject to applicable right-of-way regulations.

Attachments:

1. Completed National Register Nomination Evaluation Sheet
2. Comments from Commissioner Rachel Stemach
3. Comments from Commissioner Bill Olsen
4. Comments from Commissioner Sharon Leighty
5. Comments from Commissioner Dennis Schmidling

CC: Board of County Commissioners

Tom Anderson, Deschutes County Administrator

Ian Johnson, Associate Deputy State Historic Preservation Office

NATIONAL REGISTER NOMINATION EVALUATION SHEET
Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 6/22/2018.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOS**
ADDRESS:
BEND, DESCHUTES COUNTY

-
- | | | |
|----------------|---------------------------|--|
| <u>X</u> OK | <u> </u> Concerns | INTEGRITY: Major alterations or additions? New materials? Altered setting? Moved? etc. |
| <u>X</u> OK | <u> </u> Concerns | DESCRIPTION: Is the property adequately described? Have contributing and non-contributing features been clearly identified? |
| <u>X</u> OK | <u> </u> Concerns | SIGNIFICANCE and CONTEXT: Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance? |
| <u>X</u> OK | <u> </u> Concerns | FACTS AND SOURCES: Are the appropriate and best sources used? Are key dates and facts accurate? |
| <u>X</u> OK | <u> </u> Concerns | SUPPORTING MATERIALS: Adequate photos, maps, drawings, etc.? |

-
- | | |
|---------------|---|
| <u>X</u> | The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register. |
| <u> </u> | The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register. |

Paul M. Stovall (designee) 5/29/18
Signature of Commission Chair (or Designee) Date

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

DESCHUTES CO. HISTORIC LANDMARKS
Name of Local Historic Preservation Commission

Hello,

Please see my summarized comments to the five nomination review categories below that the Historic Landmarks Commission followed on the May 14th meeting:

Integrity: Vote "OK". Most of the same data is included in the second nomination, but it is still confusing on what is truly 'contributing', due to differing information (from the proposer, COID, and residents). However, as a whole, the Integrity is apparent, and as a non-expert in canal operations, I cannot make that determination of individual components.

Description: Vote "OK". There are sections of the canal (and other canal districts), besides the nominated portion, that don't need to be described in so much detail - it detracts somewhat from the segment being nominated. Perhaps the excessive descriptions are there to show as a comparison to the nominated segment? The updated boundary descriptions, taxlot/owner lists, and clarified maps/ visuals have greatly increased the understanding of the segment being nominated.

Significance & Context: Vote "OK". There is a lot of emphasis on the claims that irrigation is what created the initial growth of Bend and Redmond, but this nominated portion of the canal was not near the city centers. The railroads (beginning in about 1911) and lumber mills (in about 1914-15) seem to be downplayed as major contributors to the growth and development of the area.

Facts & Sources: *Vote "Concerns"*. Multiple engineers are listed on the "#8 Statement of Significance" sheet (page 44), and it seems that Redfield is the primary Engineer of this segment of the Central Oregon Canal. There are several typographical errors to correct or investigate:

Pg. 25, second paragraph - confirm spelling of Norman Weyand to be "Wygand".

Pg. 51, footnote - number "125" should be 113.

Pg. 58, under "Charles Redfield" paragraph, verify correct spelling of Moro, Oregon.

Pg. 71, historic photograph - where along the canal is this flume? Within the historic district? Clarify.

Pg. 97, last paragraph - change "setter" to settler, after "Benjamin F. Zell.

Pg. 104, first paragraph under "Subsequent Owners T18S, R13 E, Section 8", Wyand is probably spelled "Wygand".

Pg. 107, first paragraph under "Tumalo Irrigation District" Wilmer Flat should be "Weimer". Also, the name Olaf Laurfaard should be spelled "Laurgaard".

Pg. 107, footnote - number 397397 - looks like the number was doubled.

Supporting Materials: *Vote "OK"*. Would like to see more images, if any exist from the mentioned 1904 D.I.P Company Booklet and the Redmond NOW publication.

Pat Kliewer was interested in the typos that I found, so she will definitely want to see the list under "Facts & Sources". I have not send her anything directly regarding this. Let me know if you need any clarification of my comments.

Also, moving forward with this Nomination review, if there is any way the County staff can reduce the time with the HLC Commission to finalize this for SHPO/SACHP, it would be greatly appreciated. I've estimated at least 40 hours of my personal time into this (including the first and second round of nomination reviews, emails and various correspondence and side research, Commission work sessions, site visits, etc.). Inevitably, this time dedication to the Nomination has created negative impacts with my professional obligations. I simply cannot afford to carve out much more time for this review, unfortunately. Let me know if there is a way to limit additional HLC Commission time on this.

-Rachel Stemach

May 7, 2018

✓ TO: Deschutes County Planning Dept (Landmarks Commission), staff

FROM: Bill Olsen, Deschutes County Landmarks commission Board Member

RE: (Central Oregon Canal Historic District Ward Road –Gosney Road)

Regarding this referenced property nomination to the National Register of Historic Places, the action of the Board, 10/2/2017 public meeting, was not to take action in support for or against this request, but rather submit our collective concerns and County Staff would submit our remarks to the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017. Subsequent action resulted and resubmittal of the same was set for this date.

Our Board, established at the pleasure of the Deschutes County Board of Commissioners, to make representations on behalf of said commissioners and staff relating to DESCHUTES COUNTY LANDMARKS and HISTORIC SITE SELECTION and to "safeguard historic sites".

Subject site was constructed between 1902 and 1923, this irrigation canal structure allowed for homesteads and productive land development. Irrigation canals and access to water allowed farming, crop production, which supported animal production in the region, which in turn provided commerce within the developing Deschutes County area. Most Historians believe, in part, the cause for the development of Deschutes County was the creation of this unique and historic water delivery system. Crook County area had water with a natural water delivery system, to an extent, and the area which became Deschutes County had limited water and no delivery system. The Carey Act of 1902 changed all, because it allowed Irrigation projects for the benefit of the homesteaders opened the entire Central Oregon Region to Homesteaders.

One needs to merely read some of the many historic accounts from our early settlers and historians to understand and realize the importance of these many historic sites, and structures which makes Deschutes County what it is today: THE OREGON DESERT, EAST OF THE CASCADES, DESERT SAGE MEMORIES, THE RIVER FLOWS AS THE MOUNTAINS WATCH, THE PIONEER SPIRITS OF BEND, AND IT IS TOO COLD TO SNOW to name a few local publications.


Therefore, for the Record:

I vote "OK" on Integrity: this portion of the canal, I believe, is historic with regard to construction, materials, design and location, based documented and recorded history

I vote "OK" on Description: in reviewing the referenced documents the property is adequately described with contributing and non-contributing features clearly identified and supported with described documented history

I vote "OK" on Significance: Again, one needs to merely reference the above books and memories written by Central Oregon Homesteaders, Settlers and Historians who described their lives, living, raising families, working and surviving in Deschutes County

I vote "OK" on Facts and Sources: the data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period supported by the above referenced historic accounts, published books and literature

1
 BOARD MEMBER
J-14-2018 DESCHUTES ALC

May 5, 2018

TO: Advisory Committee on Historic Preservation and Deschutes County Commissioners

FROM: Bill Olsen (Deschutes County Historic Landmarks Commission)

RE: Nomination of the proposed Central Oregon Historic District (COID) to the National Register of Historic Places

This COID section is an existing historic community resource that has been in continual use by the citizens of District County for more than one-hundred (100) years. Our task today is the consideration of our support of the subject Nomination to the National Register of Historic Places. Based on public sentiment, there appears a preponderance of evidence of community support of this National Register Nomination.

It appears this portion of the COID canal system was constructed between 1902 and 1923 (excerpts from Phil Brogan's EAST OF THE CASCADES), as a result of the Carey Act of 1902. This particular portion is representative of an approximate 700 miles of irrigation canals throughout the Deschutes County portion of the high desert, flowing east. It suggests this particular portion began flowing in May 1904 and utilized as a "public" irrigation delivery system for the benefit of Deschutes County Homesteaders and residence to date. "with water on its way in 1904, teams were used in plowing lands about as fast as brush and trees could be removed and news of the development spread fast."

We support the vitality of this community utility system and recognize how important this system was and is today, connecting our downtown core area with all the surrounding developed areas.

Representing the interests of many individuals and several segments of Bend's citizenry, influenced by having grown up in Bend, I support historic preservation and land conservation. I am a volunteer member of this Board and the City of Bend Landmarks Commission, Pioneers Association and the Deschutes County Historical Society. All four of these organizations, collectively, are concerned with Historic Preservation and Conservation of Deschutes County's special places such as the Drake Park Neighborhood Historic District, the Old Town Historic District, Troy Field, Mirror Pond, Pioneer Park and river trail system, Pilot Butte State Park and many other identifiable Historic and Community resources and native sites that contribute to our local Pioneer History and the quality of life we all cherish and must preserve.

Contrary to the COID express determination and need, there is concern and acknowledgement for public sentiment and Historic Preservation for this particular portion of the canal system. Clearly, as this approximate 2.5 mile section presently exists, by a preponderance of public support, it appears to be of more value to the community as it exists, in comparison to the proposed closure, by piping, this same 2.5 miles section.

Therefore, like many of the supporting citizens who took the time to write and email their support of preserving this Historic site, I believe the public outcry against the demolition of this particular canal section is heartfelt and sincerely meaningful. Historic Preservation is important to all, it is the basis for who we are as a community and our local heritage.


1
5-14-2018

NATIONAL REGISTER NOMINATION EVALUATION SHEET

Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 6/22/2018.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOS**

ADDRESS:

BEND, DESCHUTES COUNTY

OK Concerns **INTEGRITY:** Major alterations or additions? New materials? Altered setting? Moved? etc.

The only question is whether the alterations to the canal have significantly altered the original character. This is subjective.

OK Concerns **DESCRIPTION:** Is the property adequately described? Have contributing and non-contributing features been clearly identified?

All the questions or missing information in the original application have been corrected.

OK Concerns **SIGNIFICANCE and CONTEXT:** Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance?

Criterion A - The canal tells an important part of Central Oregon's history. The question is whether this is the only section of the canal that tells this history or if the canal historical story should be preserved in a different way. Criterion D - The remaining elements of the original canal tell an important part of our history.

OK Concerns **FACTS AND SOURCES:** Are the appropriate and best sources used? Are key dates and facts accurate?

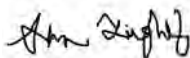
The nomination presents the appropriate and best sources to support this nomination. The facts and sources seem accurate as presented.

OK Concerns **SUPPORTING MATERIALS:** Adequate photos, maps, drawings, etc.?

Excellent supporting material on the revised application.

X The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register.

 The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register.



5/7/18

Signature of Commission Chair (or Designee) Date

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

Sharon Leighty, Deschutes Landmarks Commission, Vice Chair

Name of Local Historic Preservation Commission

Attachment: HLC Meeting Packet 4-30-18 (1943 : Central Oregon Canal Nomination Review)

May 18, 2018

To: Deschutes County Commissioners, the State Historic Preservation Office, and all who may advise on this National Register application
From: Dennis Schmidling – Deschutes County Historic Landmarks Commissioner

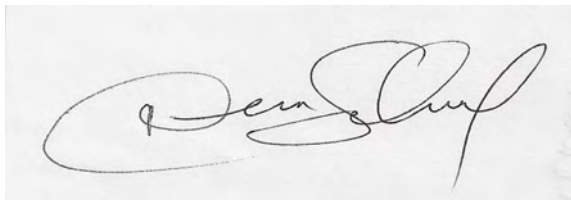
In my view, the resubmittal of this application for National Register of Historic Places recognition of the Central Oregon Canal Historic District (Ward Road to Gosney Road) in Deschutes County, Oregon, meets the five requirements for acceptance.

The application establishes an historic context, demonstrates sufficient integrity, offers clear and progressive documentation of contributing and non-contributing features against an historic timeline, identifies and defends a period of significance that is historically accurate, provides correlated factual data to support the contextual premise of the application and offers sufficient supporting materials to merit approval of this application.

Summarizing my review of several hundred pages of documents related, or in opposition, to this application, including the MPD submitted on behalf of COID, I conclude that the application has successfully established and supported a context and detail sufficient for acceptance. I was unable to find clearly documented evidence that would accurately refute the claims made by the application.

Although it is clear that time has imposed a range of changes and modifications to the original condition of the canal, its essential integrity, character, engineering, technical function and community use have endured with continuity for more than one hundred years. The sentiments expressed by the public, clearly support a multi-generational use, appreciation and affection for the function and historical value of this canal segment. As such, my vote is “OK” to all five conditions for acceptance of this application.

My personal hope is for a collaborative and creative solution, worked through in a positive manner by all property owners, concerned citizens, participating agencies, corporations and governing bodies to preserve the historical value and context of this canal segment while meeting the needs and demands of modern conservation and mindful utilization of natural resources.

A handwritten signature in black ink, appearing to read "Dennis Schmidling", written in a cursive style on a light-colored background.

Dennis Schmidling
Deschutes County Historic Landmarks Commissioner



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
(541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

October 12, 2017

Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street NE, Suite C
Salem, OR 97301

RE: Central Oregon Canal Historic District Nomination for National Register of Historic Places

To Whom It May Concern:

Thank you for the opportunity to comment on the nomination of a segment of the Central Oregon Canal as a historic district on the National Register of Historic Places. The Deschutes County Historic Landmarks Commission (HLC) received public testimony regarding the nomination at a meeting on October 2, 2017. The HLC chose to not complete review of the nomination at the meeting. Instead, each commissioner independently reviewed the nomination, considered the testimony, and submitted comments to staff to compile and summarize.

First, it is important to emphasize that the HLC recognizes the historic importance and significant role irrigation canal systems have had in the region. These water delivery systems most certainly contributed to the overall development of Deschutes County since the early 20th century by increasing the viability of agricultural uses that enabled homestead settlement and resulted in rural and urban development present today. With that said, the HLC recognizes that review and consideration of a nomination for the National Register of Historic Places is based on the merits of the application and review criteria.

Enclosed is the completed National Register Nomination Evaluation Sheet. The Evaluation Sheet indicated "Concerns" if any one of the Commissioners specifically expressed concerns regarding a category. Regarding a recommendation, 1 commissioner supports listing the district on the National Register and 3 commissioners (including one ex-officio member) do not. Based on these opinions, the Evaluation Sheet indicates the commission does not recommend listing the nomination segment of the Central Oregon Canal as historic district on the National Register of Historic Places.

For additional context and detail, the following summarizes Commissioner comments on each evaluation category.

INTEGRITY:

- Period of Significance – the property has been altered since its original design in early 1905. Some of the original design features can still be identified, but the irrigation district has altered the original design of the canal through years of maintenance. This raises a critical question of whether the alterations have significantly altered the original character or not. I do not have photos to indicate to support a decision on the impact of the major alterations nor access to any revised dates for the period of significance.
- From the research stated in the nomination, there appears to be significant revisions and improvements done to the canal (particularly beginning in the 1960s) in order for its continued function as a water utility. Few features, despite what the writer is considering 'historic' (headgates, flumes, piers, catwalks, etc.) don't particularly stand out in significance for construction practices or unique features that are already found elsewhere as better examples in the irrigation canal systems. The proposer claims that this segment is the most 'unmodified' portion of the Central Oregon Canal remaining in existence, but the constant upgrades and repairs of the canal indicate that few original (or historic) components still exist.
- Too many alterations and new materials have been added to this canal to meet integrity criteria.
- This portion of the canal, I believe, is historic with regard to construction, materials, design and location.

DESCRIPTIONS:

- In the original application, several elements (examples include Bear Creek Ranch Bridge and Burt Chute) are referenced that were built outside the period of significance for this nomination. Therefore, they cannot be classified as contributing to the district. Without access to the revised application and supporting documents to see if these concerns have been met, I cannot make a recommendation to approve.
- The property is adequately described. There seems to be superfluous information about other parts of the canal system not under consideration for nomination, making the Ward to Gosney segment difficult to interpret. It is also difficult to determine what the proposed 'boundary' (north and south) edges are, even with the accompanying map sources.
- In reviewing the referenced document the property is adequately described with contributing and non-contributing features clearly identified.

SIGNIFICANCE AND CONTEXT:

- Criterion A - The canal does tell an important part of Central Oregon and Oregon's history. The application clearly presents evidence to support this criteria. The question is whether this is the only section that tells that important story or not.
- Criterion D – The remaining elements for the original canal may tell an important part of our history in Central Oregon. Again, not sure if this same information is available in another section of the canal.
- Although the miles of irrigation canals built throughout Central Oregon have, in small part, contributed to the overall development of the area, the nomination fails to make direct connection to events in the early history of the Deschutes Project with respect to this particular segment under consideration. With Criterion A "requiring events that have

made a *significant* contribution to the broad patterns of our history," this canal does not appear to match much to that criterion.

- One needs to merely reference the above books and memories [*The Oregon Desert*, *Desert Sage Memories*, *The River Flows as the Mountains Watch*, *The Pioneer Spirits of Bend*, and *It Is Too Cold To Snow*] written by Central Oregon Homesteaders and settlers who describe their lives, living, raising families, working and surviving in Deschutes County during 1906 – 1923.

FACTS & SOURCES:

- The nomination presents the appropriate and best sources to support this nomination. As presented, the facts and sources seem accurate. The research is excellent.
- It is obvious that an exhaustive amount of research and a plethora of sources were used in creating this nomination. However, there doesn't seem to be strong connection to the area under consideration and those sources. Multiple references to the Carey Act, and a synopsis of local figures, and other various irrigation projects don't seem to be directly connected to this portion of the canal.
- The data presented appears clearly stated, believable and supported with historic photographs and referenced materials from this early homestead period

SUPPORTING MATERIALS:

- The information needed to support this application is included with the nomination. We cannot review and address the revisions raised by SHPO since we do not review the revised application. Supporting material is presented through the application to help support the application.
- Despite a number of photos and maps, very few historic photos seem to be of this part of the canal being considered for nomination. Map sources don't accurately define the north and south boundaries of the proposed District either.

In closing, it is important to reiterate that the HLC recognizes the historic importance and role irrigation canal systems contributed to the overall development of area since the early 20th century. However, outstanding concerns and the lack of historic integrity and significance of this segment of canal prevent the majority of commissioners from supporting the nomination.

Sincerely,



Rachel Stemach,
Commissioner/Designee of Chair
Deschutes County Historic Landmarks Commission

Enclosure

NATIONAL REGISTER NOMINATION EVALUATION SHEET
Certified Local Governments / Historic Landmark Commissions

The following property is being nominated to the National Register of Historic Places and will be reviewed by the State Advisory Committee on Historic Preservation (SACHP) at its meeting on 10/20/2017.

PROPERTY NAME: **CENTRAL OREGON CANAL HISTORIC DISTRICT (WARD ROAD - GOSNEY ROAD SEGMENT)**

ADDRESS:

BEND, DESCHUTES COUNTY

OK Concerns

INTEGRITY: Major alterations or additions? New materials? Altered setting? Moved? etc.

OK Concerns

DESCRIPTION: Is the property adequately described? Have contributing and non-contributing features been clearly identified?

OK Concerns

SIGNIFICANCE and CONTEXT: Has the appropriate criterion been used? Has it been justified? Is the context sufficient in breadth and depth to support the claims of significance?

OK Concerns

FACTS AND SOURCES: Are the appropriate and best sources used? Are key dates and facts accurate?

OK Concerns

SUPPORTING MATERIALS: Adequate photos, maps, drawings, etc.?

The Commission recommends that the property or properties appear to meet the National Register criteria and should be listed in the National Register.

The Commission recommends that the property or properties do not appear to meet the National Register criteria and should not be listed in the National Register.

Rebecca Stroman 10/12/17
Signature of Commission Chair (or Designee) Date

Return to: Oregon State Historic Preservation Office
ATTN: National Register Coordinator
725 Summer Street, N.E., Suite C
Salem, OR 97301

DESCHUTES COUNTY HISTORIC LANDMARKS
Name of Local Historic Preservation Commission COMMISSION



MEMORANDUM

DATE: October 11, 2018
TO: State Advisory Committee on Historic Preservation
FROM: Deschutes County Historic Landmarks Commission
Zechariah Heck, Associate Planner
RE: Central Oregon Canal Nomination to the National Register of Historic Places

The State Historic Preservation Office (SHPO) asked the Deschutes County Historic Landmarks Commission (HLC) to review a nomination of a section of the Central Oregon Canal to the National Register of Historic Places. The proposed district is located east of the City of Bend and generally bound by Ward Road to the west and Gosney Road to the east. This request marks the third time the HLC has been asked to review and provide comments on the proposed historic district.

On October 1, 2018, the HLC voted in support of listing the nomination on the National Register of Historic Places. Specifically, the HLC wanted the following statement to be sent to SHPO.

The HLC accepts the revised nomination of the Central Oregon Canal, Ward Road to Gosney Road section, to the National Register of Historic Places. It is agreed by the commission that we accept the proposal based on letters from the nomination preparer and the Central Oregon Irrigation District (COID), dated October 1, 2018, expressing agreement of the nomination under the Multiple Property Document (MPD). Further, we recommend this recommendation be presented to the Board of County Commissioners in support of this nomination request.

A recording of the October 1 HLC meeting is available here:
<http://deschutescountyor.igmp2.com/Citizens/Default.aspx>.

Attachments:

1. October 1, 2018, COID Letter
2. October 1, 2018, Pat Kleiwer Letter (*Nomination Preparer*)

CC: Jason Allen & Ian Johnson, State Historic Preservation Office





October 1, 2018

Deschutes County Board of Commissioners
PO Box 6005
Attn: BoCC
Bend OR 97708-6005

RE: *Central Oregon Canal Ward to Gosney Historic Nomination*

Dear Commissioners,

Central Oregon Irrigation District is proposing to support the latest revised NRHP nomination of the C.O. canal. Based on recent discussions with the State Historic Preservation Office (SHPO) COID believes that the nomination, with some edits, can meet the intent under the Multiple Property Document. COID supports the nomination under the following conditions:

- If SHPO and BOR concur that it meets the MPD criteria as approved by SHC and accepted by NRHP
- If SHPO and BOR agree that it meets the requirements for mitigation as set forth in our MOA with those organizations.

COID has embarked on an ambitious system improvement plan to pipe our canals. In order to meet the mitigation requirements associated with the National Historic Preservation Act, we recognize the need to preserve some portions of our history, and that this section of the C.O. Canal may be appropriate for that purpose. COID looks forward to highlighting our history on this section of canal as part of our Programmatic Agreement.

Regards,

Craig Horrell
Managing Director

Patricia Kliewer
60465 Sunridge Drive
Bend, OR 97702
541 617-0805'

October 1, 2018

Deschutes County Historic Landmarks Commission
Christine Horting-Jones, Chair
Commissioners Smidling, Stemach, Leighty, Olsen and Madden.
PO Box 6005, Bend, OR 97708
c/o Zechariah Heck, Associate Planner
Zechariah.Heck@deschutes.org

Re: Nomination to the National Register of Historic Places, the Central Oregon Canal (Ward Road-Gosney Road Segment)

Dear Landmarks Commissioners,

First, I am truly sorry to take up your valuable time yet again on this nomination! It think the third time is the charm this time! I thank you for addressing the comment sheet one more time.

Last Wednesday the Board of County Commissioners at their work session heard a presentation by Zechariah Heck. He provided a memo from SHPO staff Jason Allen about the differences in the August 2018 version of the nomination with the Dec 2017 version. I trust he has provided you with the same information. If not, please ask for it. Most of the nomination is the same as you previously reviewed. Below is the key information about the significant developments since we last visited you.

The new information that you need to know is:

1. There is a new cooperative relationship between my clients and COID since the end of June 2018. COID no longer opposes the nomination and realizes it is in their best interest to have it listed on the NRHP, asap.
2. The nomination is now on the MPD form.
3. After the Carey and Reclamation Acts Irrigation Projects in Oregon (1901-1978) MPD went before the SACHP several times, it was voted to be forwarded to the NPS in Feb 2017, over many objections. What I did not know was that the engineering staff at the Bureau of Reclamation completely overhauled the Carey and Reclamation Acts Irrigation Projects in Oregon (1901-1978) MPD, taking six months to do so, after the SACHP voted to forward it to the NPS and SHPO staff also improved it. The much-improved version was listed on the NRHP after I submitted the COC Historic District (Ward Road-Gosney Road Segment) nomination last summer. I was not aware that the MPD had been professionally revised. Most of what I had objected to and many people testified against at the SACHP hearing in Feb 2017 in Portland were corrected in the final version, unbeknownst to us. I read the listed version this summer and saw a few mistakes, but many improvements. I could accept it.
4. Ian Johnson, SHPO Deputy Director, said the COC Historic District (Ward Road-Gosney Road) nomination could meet the February 2014 MOA No. R14MA13733 between COID, the Bureau of Reclamation and the Oregon SHPO with a few changes. They

would prefer that it was on the MPD form, but it did not have to be. The MOA is a very important agreement and it led to the MPD, the Downtown Redmond Historic District Nomination and the Brasada Ranch Historic District nomination, all started in early 2014 and submitted by COID. All of them were reviewed several times by the SACHP.

5. After the SACHP public hearing on the COC Historic District (Ward Road-Gosney Road Segment) meeting last June, I met with COID's manager and Assistant Manager twice and we saw the opportunity to meet both of our goals by getting this nomination listed. We could work together to take away COID's objections and meet the remaining MOA requirements.
6. I spent a few weeks this summer transferring the Dec 2017 nomination onto the National Register of Historic Places MPD form and added some references to the Carey and Reclamation Acts Irrigation Projects in Oregon (1901-1978) MPD so that it could more easily fulfill the February 2014 MOA No. R14MA13733. I made the changes, deletions and additions required and recommended by Jason Allen after the SACHP hearing.
7. The already-extended deadline for COID to meet the requirements of the Feb. 2014 MOA between COID, the Bureau of Reclamation and the Oregon SHPO is next February 2019, and SHPO is not interested in extending the deadline again. COID's starting over with a new nomination for a different stretch of the Central Oregon Canal cannot meet the deadline and would incur more expense for COID. The Central Oregon Canal Historic District (Ward Road-Gosney Road) nomination will be listed by then, if there are no further delays. Even if COID helps to pay for the current nomination, it will only be a small fraction of the cost of hiring a new team to write a new nomination for a different segment of the COC canal.
8. The Ward Road-Gosney Road is the best segment to nominate for many reasons. It has most of the irrigation-related structures listed in the MPD. It has high integrity. It passes through farmland with COID patrons, irrigation ponds and active irrigation systems so people can see how the system works. It has publicly owned land with direct access from Gosney Road, Ward Road and Somerset Drive. It is accessible. Bend Park & Recreation District already is planning an 80-acre park that is crossed by the canal in the historic district and an accessible paved trail along it. It is close to the population areas; and it has the backing of all of the property owners. The nomination is already written. The only opponent has been COID.
9. The Brasada Ranch nomination is not likely to be listed anytime soon, if at all. It is questionable whether or not it still meets the listing criteria, even if the owners removed their objection to the listing.
10. COID is required to nominate, have listed and protect an open stretch of the Central Oregon Canal, preferably one that has good public access to allow for interpretation, signage, trails, and parking. SHPO and the Bureau of Recreation have agreed that the Ward Road to Gosney Road segment of the COC meets the qualifications of the MOA.
11. The fall in the canal in the nominated stretch is the same as the canal average of 15 feet drop per mile. No power plant is anticipated for the segment. Piping is low priority. The segment has much solid lava rock flows in its bed and lower than average seepage losses, with standing water in many stretches all winter. Piping was not planned for the next 20 years.

I want to repeat the information I sent to you last spring about your role in maintenance and repairs. There still is confusion about that. COID said last spring about listing the historic district, "*a listing would substantially degrade the District's ability to serve their needs if there was a break or leak in the canal that needed to be fixed.*" I do not want this misinformation and unnecessary worry to continue. COID fears that it will not be able to maintain the canal in the historic district, if it is listed on the NRHP. It is entering into a Programmatic Agreement with the

Bureau of Reclamation and the Oregon SHPO about how the listed segments should be maintained and protected. That PA will add more certainty about what is expected. You can learn more about it from the Oregon SHPO or your Chair.

During the past two years, there have been no instances in which the HLC prevented COID from maintaining and repairing the Pilot Butte Canal Historic District, (Yeoman Road-Cooley Road Segment.) or the Pilot Butte Canal Historic District (Downtown Redmond Segment). There was a blow out and minor flooding at the intake to the pipe for the Juniper Ridge Power Plant in the historic district and other problems with rock chucks. COID was not prevented from its usual timely repair and maintenance. I expect the same for this segment of the Central Oregon Canal.

The County's Historic Preservation Code allows for ordinary maintenance and repairs or necessary emergency alterations, without County HLC's review.

The County's Historic Preservation Code states at 2,28,090.J:

“Nothing in DCC 2.28 shall be construed to prevent the ordinary maintenance or repair (e.g. painting) of exterior architectural features of a building or structure which does not involve a change in design or type of materials.”

2,28.090. K. states,

“A change in design or type of materials shall be allowed if the County building official states in writing that the repair is necessary for personal or public safety due to an unsafe or dangerous condition in or on the building or structure.”

Furthermore, Sterns Waste is owned by the COID and is in the proposed historic district. More information about how it is used in an emergency is in Section 7 of the Nomination

I hope you will fill in the comment form for the SACHP and say that the nomination meets all of the requirements for listing and that you are pleased COID and the owners are working together this time to get this listed in a timely manner. Thank you very much.

Sincerely,

Pat Kliewer

Pat Kliewer, MPA

National Register of Historic Places

Note to the record

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Oregon

An audio recording of the State Advisory Committee on Historic Preservation (SACHP) meeting was submitted to the National Register of Historic Places. The minutes of the meeting are held by the State Advisory Committee on Historic Preservation (SACHP)

The SACHPO website is

https://www.oregon.gov/OPRD/HCD/NATREG/pages/nrhp_sachphome.aspx

accessed: 1/15/2020