

PH0356093

DATA SHEET

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY

RECEIVED AUG 00 1976

DATE ENTERED

DEC 12 1976

FOR FEDERAL PROPERTIES

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC ******

Bighorn Ditch Headgate

AND/OR COMMON

Bighorn Canal Headgate

LOCATION

STREET & NUMBER On the south side Bighorn River at mouth
of Bighorn Canyon, Bighorn Canyon National Recreation Area

CITY, TOWN

Fort Smith

Recreation Area

CONGRESSIONAL DISTRICT

STATE

Montana

CODE

30

COUNTY

Big Horn

CODE

003

CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input checked="" type="checkbox"/> UNOCCUPIED	<input checked="" type="checkbox"/> MUSEUM
<input checked="" type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input checked="" type="checkbox"/> PARK
<input type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> EDUCATIONAL
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> ENTERTAINMENT
	<input type="checkbox"/> BEING CONSIDERED	<input checked="" type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> GOVERNMENT
		<input type="checkbox"/> NO	<input type="checkbox"/> INDUSTRIAL
			<input type="checkbox"/> MILITARY
			<input type="checkbox"/> OTHER:

AGENCY

REGIONAL HEADQUARTERS: (If applicable)

National Park Service

STREET & NUMBER

Rocky Mountain Region, P. O. Box 25287

CITY, TOWN

Denver,

VICINITY OF

STATE

Colorado 80225

LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Big Horn County Courthouse

STREET & NUMBER

121 West 3rd Street

CITY, TOWN

Hardin,

STATE

Montana

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

Bighorn Canyon National Recreation Area, History Basic Data

DATE

February 1970

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR
SURVEY RECORDS

National Park Service

CITY, TOWN

Washington,

STATE

D.C. 20240

7 DESCRIPTION

CONDITION

EXCELLENT
 GOOD
 FAIR

DETERIORATED
 RUINS
 UNEXPOSED

CHECK ONE

UNALTERED
 ALTERED

CHECK ONE

ORIGINAL SITE
 MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Begun in 1892 on the plan of William H. Graves of Denver, who had been employed to prepare plans and estimates for several irrigation districts within the Crow Indian Reservation by the Office of Indian Affairs, the first section, the Agency Ditch, was bounded by the Little Big Horn River on the west and extended between Crow Agency and Custer. The ditch irrigated 35,000 acres. The irrigation district was completed in 1904 with the construction of the Bighorn Ditch, which at the headgate originally allowed 720 cubic feet of water per second into the canal. Approximately forty feet wide and fifteen feet deep, the canal extends parallel to the river bank within a 416 diversion dam which angles approximately fifteen degrees into the river at the headgate. The thirty-five-foot wide headgate curtain wall, the wing wall at the end of the diversion dam, and approximately seventy feet of the flume wall below the headgate are constructed of local dressed limestone finely laid in random ashlar. This masonry structure is capped with large rounded edge limestone slabs which provide a walkway. Four semicircular buttresses extending into the river from the headgate curtain wall retain steel tracks and miscellaneous iron for manual regulation of five iron gates. Other mechanical remains are located inside the headgate at the flume wall, though their exact function has not been ascertained.

The only visible remains of the canal operation are the overgrown ditch extending for mile down the Big Horn River and out of the National Recreation Area. The headgate, located one-quarter mile northwest of the headquarters area on the south side of the river at the mouth of Bighorn Canyon, is partially submerged by the varying water level of the river backed up behind Yellowtail Afterbay Dam. It is anticipated that the headgate structure may be partially restored, as repointing is necessary, and that it will continue to be interpreted by the National Park Service.

8 SIGNIFICANCE

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION		
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE		
<input type="checkbox"/> 1500-1599	<input checked="" type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE		
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN		
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER		
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION		
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input checked="" type="checkbox"/> OTHER (SPECIFY)		(Directed Culture Change)
		<input type="checkbox"/> INVENTION				

SPECIFIC DATES

1892-5

~~XXXXXXXXXXXX~~

William H. Graves, Engineer

STATEMENT OF SIGNIFICANCE

The Bighorn Ditch Headgate remains as a significant engineering monument to the Crow Indian Tribe in quickly adapting to an agrarian way of life on the reservation following the demise of the buffalo and nomadic migration. In 1885 the Crow Tribe was moved from the old Rosebud Agency to Crow Agency and immediately began tilling 165 approximately five-acre plots allotted to Indian families who tended grain and truck crops. Three years of crop failure, due to hail and drought, necessitated irrigation. By 1891 Reno Ditch, funded by the Tribe, was completed above Crow Agency from the Little Big Horn River and 4,500 acres were watered. The expanded farming allowed the Tribe to supply the Quartermaster of Fort Custer with hay and, after 1896, flour from the tribal grist mill. Though the fort was closed in 1898, flour continued to be the mainstay being sold to regional consumers. With the opening of the Bighorn Ditch and the tillage of additional allotted acres, the Tribe reached an economic stability based on agriculture and cattle raising that permitted the Government to suspend the general issuance of rations, including beef. By 1905 the first Crow Industrial Fair displayed the fruits of the Tribe's toils.

Bighorn Ditch and the headgate stemmed from an agreement between the Office of Indian Affairs and the Crow Tribe. This agreement, incorporated into an article ratified by Congress on March 3, 1891, provided that the Crow Tribe cede part of their reservation and that funds be diverted to an irrigation system of dams, canals, ditches, and laterals in the Big Horn and Little Big Horn River valleys and the Pryor Creek valley as approved by the Secretary of the Interior.

The Office of Indian Affairs contracted with William Graves immediately to prepare the plan and estimates. By August 1892 fifty Indian laborers and their horse teams were at work. Graves observed "...they do as good work as white men and take pride in the doing of it." By the summer of 1893, 12,300 acres were irrigated and \$47,000 had been expended towards wages, a boost to the Tribe's economy. \$75,000, set aside for management and maintenance, was used to instruct the Indians on managing the irrigation system as well as for repairs to the pioneer irrigation project, Reno Ditch. By 1897, the district largely was completed by a large force of Indian laborers under the direction of Graves. However, not until the completion of the Bighorn Ditch were all Indian families provided an irrigated allotment. Finally completed in the autumn of 1904, the ditch provided an additional 35,000 irrigated acres. The project, while aiding the Crow economy, also provided instruction in construction techniques and induced the Tribe to breed better draft horses.

Irrigation experts from all over the west praised the Bighorn Ditch noting that it was "...one of the best and most substantial pieces of irrigation work in the United States...." The cost per acre of land irrigated also favorably compared with similar projects built for and by whites in Montana and Wyoming.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Bearss, E. C., Historic Structure Report, Historical Data Section and Historic Resource Study, Ewing (Snell), and ML Ranches, and Hillsboro, National Park Service, Denver, Colorado, 1974.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 1 acre per plan modification S. LIVEING

UTM REFERENCES Yellowtail Dam Quadrangle, Montana 7.5 minute

A

1	3	2	6	8	7	0	0	5	0	2	2	0	2	0
ZONE				EASTING				NORTHING						

B

ZONE				EASTING				NORTHING						

C

ZONE				EASTING				NORTHING						

D

ZONE				EASTING				NORTHING						

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Rodd L. Wheaton, Historical Architect

ORGANIZATION

National Park Service, Rocky Mountain Region

STREET & NUMBER

P. O. Box 25287

CITY OR TOWN

Denver,

DATE

01/12/76

TELEPHONE

(303) 234-2764

STATE

Colorado 80225

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES

NO

NONE

Ron Holliday

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is National State Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

Deputy Assistant Secretary

DATE

AUG 3 1976

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST

KEEPER OF THE NATIONAL REGISTER

DATE

12/12/96

DATE

11-26-75