NPS Form 10-900 (Rev. 10-90)

OMB No. 1024-0018

1244

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 *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate location or by entering the information requested. 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Glenwood Springs Hydroelectric Plant

other names/site number Glenwood Light & Water Co. Hydroelectric Plant 5GF.2441

2. Location

street & number 601 6th St. N/A not for publication

city or town Glenwood Springs N/A vicinity

state Colorado code CO county Garfield code 045 zip code 81601

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, 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 [ ] nationally [ ] statewide [X] locally. ([ ] See continuation sheet.)

Georgianna Contiguglia — September 3, 1998

Signature of certifying official — Date

State or Federal agency and bureau

In my opinion, the property [X] meets [ ] does not meet the National Register criteria. ([ ] See continuation sheet.)

Signature of commenting or other official — Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that this property is:

[ ] entered in the National Register
[ ] See continuation sheet
[ ] determined eligible for the National Register
[ ] See continuation sheet
[ ] determined not eligible for the National Register
[ ] removed from the National Register
[ ] other (explain):

Signature of the Keeper — Date of Action

Edson H. Beall — 10/14/98

GLENWOOD SPRINGS HYDROELECTRIC PLANT
Name of Property

GARFIELD COUNTY, COLORADO
County and State

5. Classification

Ownership of Property
(Check as many as apply)
- ___ private
- X public-local
- ___ public-State
- ___ public-Federal

Category of Property
(Check only one)
- X building(s)
- ___ district
- ___ site
- ___ structure
- ___ object

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

Contributing	Noncontributing	
1	0	buildings
		sites
1		structures
		objects
2	0	Total

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

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY / energy facility

Current Functions
(Enter categories from instructions)

RECREATION AND CULTURE / art gallery

7. Description

Architectural Classification
(Enter categories from instructions)

NO STYLE

Materials
(Enter categories from instructions)

foundation CONCRETE
walls BRICK
roof SHINGLE
other STUCCO

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

GLENWOOD SPRINGS HYDROELECTRIC PLANT
Name of Property

GARFIELD COUNTY, COLORADO
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more locations for the criteria qualifying the property for National Register listing)

X 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 locations 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 a grave.

___ D a cemetery.

___ E a reconstructed building, object, or structure.

___ F a commemorative property.

___ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

COMMUNITY PLANNING & DEVELOPMENT

INDUSTRY

Period of Significance

1888 - 1947

Significant Dates

N/A

Significant Person
(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

VON ROSENBERG, THEODORE

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

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 #_____
___ recorded by Historic American Engineering Record #_____

Primary Location of Additional Data

X State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
___ University
X Other

Name of repository:
Denver Public Library, Western History
Frontier Historical Society Museum

GLENWOOD SPRINGS HYDROELECTRIC PLANT
Name of Property

GARFIELD COUNTY, COLORADO
County and State

10. Geographical Data

Acreage of Property LESS THAN ONE ACRE

UTM References
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	13	300610	4380220	3			
2				4			

see continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title RON SLADEK, PRESIDENT WILLA SONCARTY, RESEARCHER

organization TATANKA HISTORICAL ASSOCIATES, INC. date 29 MAY 1998

street & number P.O. BOX 1909 telephone 970/229-9705

city or town FORT COLLINS state CO zip code 80522

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name CITY OF GLENWOOD SPRINGS

street and number 806 COOPER AVE. telephone 970/945-2575

city or town GLENWOOD SPRINGS state CO zip code 81601

NARRATIVE DESCRIPTION

GENERAL DESCRIPTION OF THE SITE

The 1888 Glenwood Springs Hydroelectric Plant occupies a 1/3-acre site in north Glenwood Springs near the entrance to Glenwood Canyon. Oriented on a northeast to southwest axis with the original entrance facing to the south (the current entrance faces west), the 4,552 square foot building is bordered to the south by 6th St., Interstate 70, and the Colorado River; to the north by a steep hillside and an electrical substation; to the west by the Hot Springs resort and pool; and to the east by the Yampah Hot Springs vapor caves. The Hydroelectric Plant takes up most of the site, which is otherwise occupied by a small parking area to the southwest and a narrow yard and transformer shed to the north. Currently occupied by the Glenwood Center for the Arts, the building is in good condition and exhibits a good degree of historic integrity.

The main 42' x 60' Hydroelectric Plant structure is rectangular in shape, with a 19' x 32' addition to the east and another 10' x 16' addition to the west, both of them constructed during the mid-1890s. A 28' x 43' garage addition, constructed around 1960, is found on the western edge of the site. This later addition is visually separated from the main plant by its minimal connection with the small 1890s western addition, and due to the fact that it has been set back into the hillside on the north edge of the site. While the main building is a tall two-story vernacular structure giving the appearance of a house, the additions are all single story in height.

Constructed above a raised concrete foundation, the brick walls of the Hydroelectric Plant are finished on the exterior with smooth white stucco that makes the building appear to be constructed of concrete (this material was probably added in the late 1940s). Laid in running bond coursing, the exterior walls are ornamented with simple recessed panels and heavy stone sills and lintels. All windows on the original structure, except for those in the dormers, are set in wood frames with stone lintels and slip sills. The roof of the main building is composed of intersecting gables, exposed rafters with fascia boards, tin ridge caps, wood shingles, and closed gables with pent roofs on the east and west. Two intersecting gabled center wall dormers, ornamented with square butt wood shingles, are found on the north and south slopes.

The 1890s additions are brick side-gabled structures with asphalt-shingled roofs, both of which are stuccoed on the exterior and painted white to match the main building. A brick chimney is found on the south slope of the early west addition. The circa 1960 west garage addition is composed of stuccoed cinder blocks with a below grade concrete rear wall. This structure has a gabled roof with a normal slope on the east and a long low slope on the west, indicating that the addition was originally limited to the eastern half and later expanded to the west. A small poured concrete structure north of the Hydroelectric Plant is a mid-1910s transformer shed.

United States Department of the Interior
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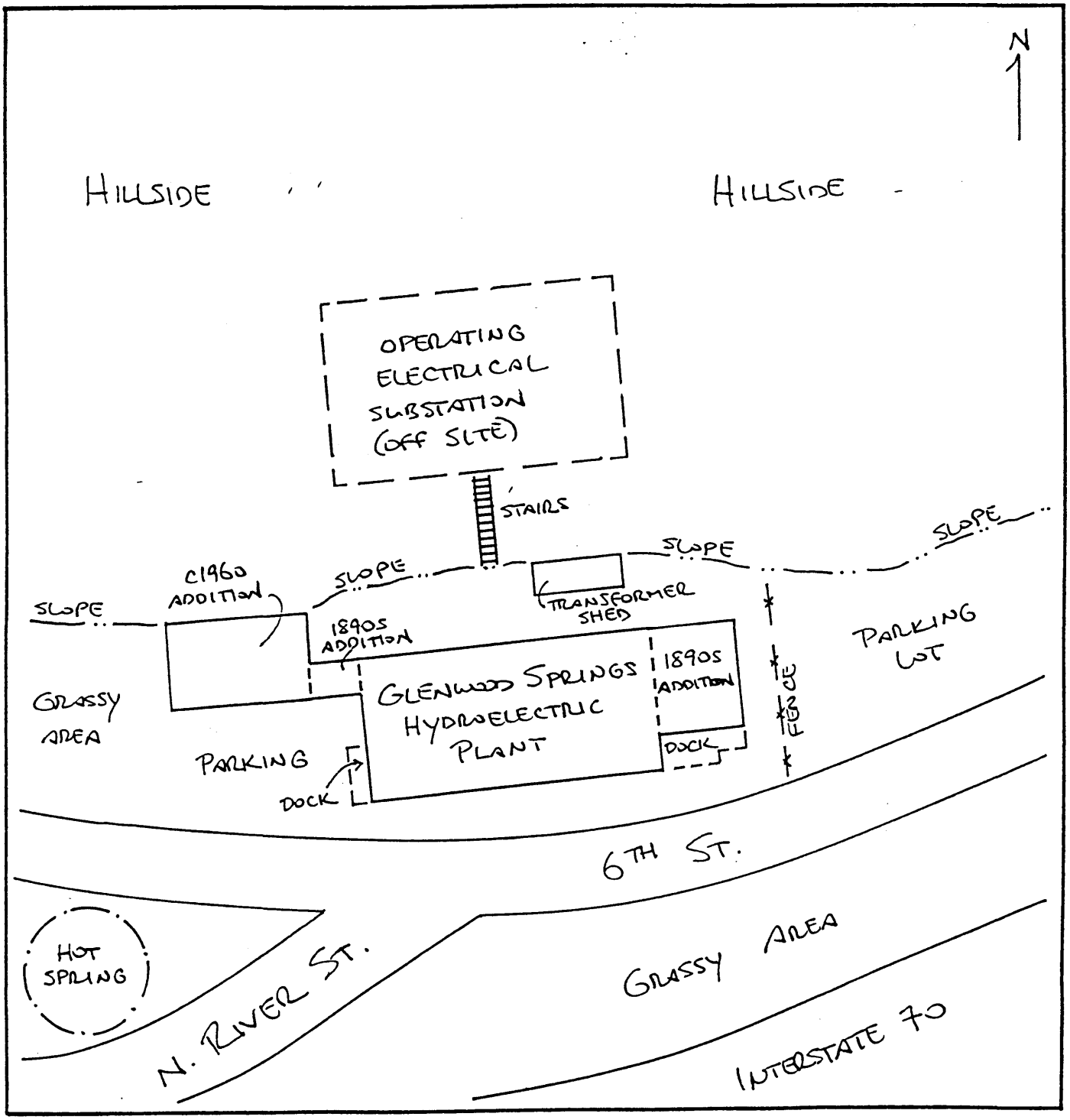
NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 1a. Property GLENWOOD SPRINGS HYDROELECTRIC PLANT
GARFIELD COUNTY, COLORADO

HYDROELECTRIC PLANT DIAGRAM (not to scale)



NARRATIVE DESCRIPTION

SOUTH ELEVATION DESCRIPTION

The first floor windows on the south (primary) elevation of the main building include two tall 2/2 double hung sashes and two smaller single-light fixed windows on either side of the original main door. A closed main entrance door space is found at the center of the first floor wall, with a heavy stone rock-faced lintel still in place. All of the windows have heavy stone rock-faced lintels and slip sills. This first floor facade is otherwise highlighted only by two window-sized pair of vertical recessed panels framing the main entry and a horizontal recessed panel above the door. The attic floor contains a pair of multi-light over two-light double hung sashes in the wall dormer, otherwise characterized by wood shingles, a wood window frame with a decorative wood lintel, and a small touch of half-timbering into the gable above the window.

The south elevation on the early east addition is characterized by a low concrete loading dock, a swinging metal freight door with a transom and heavy stone rock-faced lintel, and one 2/2 double hung sash with a stone rock-faced lintel and slip sill. The early west addition has no windows or other features, while the newer far western addition is characterized by two modern glass doors, two large modern fixed single-light windows, and a large overhead wood garage door (12 panels over 4 lights over 8 panels) that appears to date from the early 1960s.

NORTH ELEVATION DESCRIPTION

The first floor windows on the north (rear) elevation of the main building include two tall 2/2 double hung sashes, two single light fixed windows, and one 24-light awning window, all of which have stone rock-faced lintels and slip sills. The attic floor's shingled wall dormer has a pair of windows featuring two-light hoppers in the upper spaces with boarded spaces below, set in a simple wood frame. One old four-panel wood door in a wood frame is set near the middle of the wall. The north elevations of the additions contain no windows, doors, or other distinguishing features.

EAST ELEVATION DESCRIPTION

Much of the primary structure of the building is covered on this elevation by the east addition. First floor windows on the east (side) elevation of the main building are limited to one tall

NARRATIVE DESCRIPTION

boarded window space with a rock-faced stone lintel and no sill. The attic floor contains two short 1/1 hoppers with stone rock-faced lintels and slip sills, placed on either side of a flat, featureless pilaster extending up the center of the wall into the gable. The east elevation of the east addition contains no windows, doors, or other distinguishing features.

WEST ELEVATION DESCRIPTION

The first floor of the west (side) elevation of the main building contains no windows, although it is ornamented with five tall vertical recessed panels. Also present are a pair of modern glass doors set into a large former freight door space closed with modern siding, with an old wood beam lintel above. A central flat pilaster rises from above this lintel upward through a pent roof to the gable peak, separating two 2/2 double hung sashes with stone rock-faced lintels and slip sills found on the attic floor. A high concrete loading dock is also present, projecting from the west wall near the southwest corner of the building. The west elevation of the circa 1960 west addition contains no windows or other distinguishing features other than a modern wood door.

DESCRIPTION OF INTERIOR FEATURES

The interior of the Glenwood Springs Hydroelectric Plant has been extensively altered over the past several decades, as power-generating equipment was removed and the building converted to use as a city shops facility, an ambulance garage, and in recent years the Glenwood Center for the Arts. Currently characterized by a large open space with a wood floor, the only other historic features in the building's main room are the high ceiling and slender squared wood pillars supporting the attic floor. The interior walls of the main building and the early east and west additions feature the exposed brickwork formerly seen on the outside as well. The original floor has been replaced in recent years, closing up large gaping holes left behind in places where the electrical equipment was mounted. Today this large open space is utilized as an art gallery, while the early east addition, newer far west addition, and second floor of the main building are used for art classes and studios, along with the offices of the Center for the Arts.

NARRATIVE DESCRIPTION

DESCRIPTION OF THE TRANSFORMER SHED

Ten feet to the north of the main Hydroelectric Plant building is an 8' x 27' poured concrete structure, originally used as a transformer shed. This simple contributing structure, erected between 1912 and 1919, features a concrete barrel roof, a single hopper window on each of the east and west walls in rough wood frames with metal screens, a swinging metal grate door, and old electrical insulators projecting from the south and east walls. The north wall of the shed is partially buried in the adjacent hillside slope.

NARRATIVE STATEMENT OF SIGNIFICANCE

STATEMENT OF SIGNIFICANCE

The 1888 Glenwood Springs Hydroelectric Plant is a product of the early growth of the developing resort community of Glenwood Springs, serving today as a reminder of the widespread impact that revolutionary technological innovations such as electricity had upon community development. This hydroelectric plant is one of the earliest still standing in Colorado, constructed less than a decade after the invention of the light bulb and the first commercially-available dynamo, and just a few years after the introduction of commercial electrical power systems in New York City (the first steam-driven system) and Appleton, Wisconsin (the first hydroelectric system) in 1882. The effect that the privately-owned Glenwood Springs Hydroelectric Plant had upon the town was tremendous, as wide-scale electrical production forever changed life in Glenwood and other communities throughout the state over the next few decades. The Glenwood Springs Hydroelectric Plant's period of significance begins in 1888 when the structure was erected and put into operation, and ends in 1947 when it was purchased by the city and eventually converted to other uses.

As an industrial plant engaged in the production of electricity, the facility was developed as a result of the engineering skill, mining industry experience, development interests, and financial connections of a group of successful, well-educated pioneers important in the history of early Glenwood Springs. Among these men were mining engineer and developer Walter Devereux, engineer and inventor Charles Doolittle, architect and public works engineer Theodore von Rosenberg, and business managers and investors F. Hervey A. Lyle and Clifford C. Parks. All of these men were known in western Colorado during the late 1800s for their success in the mining, railroad, and banking industries, and were soon noted as important early developers of Glenwood Springs' infrastructure as well.

The Glenwood Springs Hydroelectric Plant meets National Register Criterion A for its association with events that have made a significant contribution to the broad patterns of our history, especially in the area of community development and planning, and the area of industrial development. One of a handful of surviving representatives of the state's earliest and often privately-owned electrical power plants (and possibly the earliest hydroelectric plant still standing), the building reminds us of the period when electric systems were in their infancy and on the verge of transforming human culture, business practices, and quality of life throughout the nation. This plant contributed to the development of Glenwood Springs as a community, as it immediately became a critical and indispensable part of the city's infrastructure.

NARRATIVE STATEMENT OF SIGNIFICANCE

HISTORICAL BACKGROUND

The origins of the Glenwood Springs Hydroelectric Plant date back to 1886 with the construction of a coal-fired, steam-driven electric power plant on the north bank of the Grand (Colorado) River just west of what is now the hot springs pool and bathhouse. This first power plant in Glenwood Springs was erected through the efforts of pioneer Walter B. Devereux, a successful Aspen mining engineer who ventured into the Glenwood area in 1883 in search of coal for Jerome Wheeler's Aspen mining operations. Locating an abundant supply of coal in the area, Devereux filed claims and formed the Grand River Coal & Coke Co., appointing Irish immigrant F.H.A. Lyle in charge of the new coal production firm. Coal mined in the Glenwood area was hauled by horse teams to the smelter in Aspen, however the limitations of this form of freight hauling led Devereux to convince Jerome Wheeler of the need for a rail line between Aspen and Glenwood Springs. As vice-president of the Colorado Midland Railroad, Wheeler arranged for the 1885 construction of a standard-gauge line from Colorado Springs to Aspen, which was extended to Glenwood Springs a few years later with the help of British capital investment. These connections ultimately brought with them the necessary skill and finances required to introduce electricity to Glenwood Springs within a very short time.

Rising to a position of wealth from his Aspen silver mining and Glenwood area coal mining ventures, and with a growing interest in Glenwood Springs as an investment opportunity, Walter Devereux set his sights on development of the Glenwood hot springs into a world-class resort designed to attract moneyed vacationers from the East Coast and abroad. The City of Glenwood Springs was incorporated in 1885 and the town was growing, largely due to the attraction of the hot springs, as well as the area's mild climate and rich farm land. Entering the area at this fortuitous time, Devereux formed the Colorado Town & Land Co. (later reorganized as the Glenwood Hot Springs Co.) and purchased ten acres around the Yampah Hot Springs on the north side of the Grand River for $125,000 from earlier settler and visionary Isaac Cooper.

Cooper had initially settled in the area in 1882 and purchased land there with a dream of developing the hot springs into a resort and bringing fresh running water to the new settlement of Glenwood Springs, however he lacked the capital to accomplish these lofty goals. With the finances to achieve Cooper's dreams and the hot springs property now under his ownership, Devereux commenced his development plans by organizing the Glenwood Light & Water Co. in 1886. The first effort of this new firm was the construction of a flume from No Name Creek through Glenwood Canyon for public water supply use, and erection of a small steam-driven power plant that summer on the north bank of the Grand River that began to supply the town with its first commercially-available electric supply.

NARRATIVE STATEMENT OF SIGNIFICANCE

Electrical power generation in Colorado was in its infancy during the 1880s, as it was throughout the world at that time. Thomas Edison, credited with the American perfection of the incandescent light bulb and electrical power generation (others were successfully working on the same inventions in Europe), traveled through the mountains of Colorado during the summer of 1878, visiting mines and observing the hand-powered drilling techniques. Moved by the immense and difficult effort expended by hand in the mining industry, Edison reportedly turned to a traveling partner at a point above the Platte River and stated "Why cannot the power of yonder river be transmitted to these men by electricity?"

Returning home to New Jersey, Edison immediately ceased work on the phonograph and put all of his laboratory's energies into the development of electricity. Eager to replace the world's existing and problematic gas lighting and steam power systems with cheap and efficient electrical power, Edison conducted extensive research and enlisted the help of a number of brilliant young scientists in the emerging field of electrical engineering, including a short period of assistance from Nikola Tesla. The practical result of this research and experimentation was Edison's first large-scale steam-driven commercial power system, installed in New York City in 1882. (Two years earlier, the first small hydroelectric plant in the world was placed into operation at Grand Rapids, Michigan strictly to provide lighting to several businesses.)

With Edison tightly controlling the patents for his lighting and power systems, companies throughout the country began to sign licensing agreements for the generation of direct current power and the installation of Edison-based lighting systems. During the fall of 1884, Edison mounted a spectacular display of electricity at the International Electrical Exhibition in Philadelphia, attracting tremendous attention to the achievements of his Edison Company and proving that electrical lighting systems were a practical necessity for every community and industry. These achievements were the catalyst for the introduction of direct current electrical power generation to the state of Colorado during this time. By the end of 1886, power plants were operating in Aspen (the original Castle Creek plant was designed by Walter Devereux and partly owned by his brothers, James and Horace), Denver, Georgetown, Leadville and Glenwood Springs. At this early date, only forty to fifty water-powered plants were on line or under construction in all of North America, while the remainder were all powered by steam.

Financed by Walter Devereux and Rathbone Brothers of London (financiers of the Colorado Midland Railroad), the first Glenwood Springs power plant was so successful that the city signed a twenty year franchise with the Glenwood Light & Water Co. for the supply of electricity to area residents and businesses. The early date of this electric system, powered by the 1886 plant, made Glenwood Springs one of the first towns in the state to provide city-wide electrical power

NARRATIVE STATEMENT OF SIGNIFICANCE

to its citizens. The Hotel Glenwood and other establishments opened for business that year with an air of excitement due to the new electrical lighting system. Over the next two years, Walter Devereux continued to invest in the future of Glenwood Springs by expanding the public water and light systems, establishing the First National Bank, and proceeding with development of the hot springs resort together with local partners that included his brothers, F.H.A. Lyle, Clifford C. Parks, and James Hagerman, an officer of the Colorado Midland Railroad.

After leaving the brief employ of Thomas Edison due to conflicting ideas about the future of electric power systems, Nikola Tesla began to conduct his own research into the alternating current system and polyphase generators. Achieving a major breakthrough in 1888 when he attracted the attention of George Westinghouse, Edison's primary American competitor, Tesla was hired as a consultant to the Pittsburgh railroad and electrical power entrepreneur who had already equipped numerous powerhouses across the country. By 1889, the *American Electrical Directory* listed two hundred electric companies that utilized water power for at least some of their power generation out of a total 560 electric plants in the country. Small alternating current plants appeared in a handful of locations beginning in 1889, many of them related to the mining industries in California and Colorado. Tesla's involvement with Westinghouse, who demonstrated the alternating current system at the 1893 World's Columbian Exposition in Chicago, gave tremendous impetus to the long-term ascendancy of alternating current over Edison's direct current system. Moving forward with their faith in the future of alternating current systems, Westinghouse Electric Co. incorporated Tesla's innovations into the first large-scale, commercially successful alternating current plant constructed in 1895 utilizing hydropower from Niagara Falls.

The same year that Nikola Tesla went to work for George Westinghouse, Walter Devereux began to develop the Glenwood hot springs. To achieve this goal, Devereux hired Viennese-born and trained Colorado Midland Railroad architect/engineer Theodore von Rosenberg to prepare designs for the pool and stone bathhouse, as well as for a new 2000 horsepower hydroelectric plant for the Glenwood Light & Water Company. This state-of-the-art facility was to be located east of the hot springs near the vapor caves, utilizing water transported through the existing flume from No Name Creek to power four dynamos installed to replace the earlier, obsolete, and now inconveniently located steam-driven plant.

Von Rosenberg, a resident of Colorado Springs at the time, arrived in Glenwood in February 1888 to prepare plans for the new power plant and hot springs improvements. Evidently desiring to blend the plant aesthetically with the adjacent hot springs resort, von Rosenberg employed a vernacular style more commonly found in residential structures of the time, yet also

NARRATIVE STATEMENT OF SIGNIFICANCE

reminiscent of early train stations. A typical industrial-style building at this location would have appeared not only out of place but certainly an eyesore in the heart of the emerging spa of north Glenwood Springs, and von Rosenberg's design minimized the impact of the plant's presence in this area.

Already recognized as a skilled architect and civil engineer, von Rosenberg settled in Glenwood Springs in 1888, built a home there, and became a prominent practicing Western Slope architect and engineer, designing bridges at Glenwood, Russell, Delta, Rifle, Parachute and Gypsum, the R.P. Morris Ranch near Parachute, and school buildings at New Castle and Parachute. For the Colorado Midland Railroad, he designed depots at Manitou Springs and Leadville, as well as the roundhouse, shops, storehouse and other related buildings in Colorado City. In Aspen, von Rosenberg designed a number of residences, commercial blocks, and the second (1892-93) electric powerhouse on Castle Creek. In Glenwood Springs, he designed commercial buildings such as the Avalanche Block and Myser's Mammoth Livery Stable. His irrigation projects included the reservoir and canal of the Grass Valley Land, Loan & Improvement Co., and his skills were employed for surveys of mineral and coal mines, and the development of public sanitation works in western Colorado.

Given the task of designing a utilitarian power plant structure for the Glenwood Light & Water Co., von Rosenberg strayed from the typical industrial designs of the period (other power plants in Colorado were designed in a vernacular industrial style) and created a unique building that blended well with Glenwood's emerging residential district across the river and with the adjacent developing hot springs resort. Although its style did not match the more ornate Romanesque and Italianate styles of the adjacent Hot Springs Bathhouse and Hotel Colorado, the power plant also did not stand out as an industrial facility in the heart of an elite resort district. With its high brick walls (now stuccoed) with recessed panels, intersecting gables, shingled wall dormers, shingled roof, heavy stone sills and lintels, and tall double-hung sash windows, the building is notable as one of the more architecturally interesting industrial structures of its kind.

Construction on the new Glenwood Light & Water Co. power plant was underway by the summer of 1888, overseen by Mason W. Mather, superintendent and construction engineer for the Colorado Land & Improvement Co., the general hot springs area development firm owned by the Devereuxs and their combination of local and London-based partners. Prior to his arrival in Glenwood the year before, Mather was engaged in the business of building water works at locations throughout the country (including at Aspen), and was employed as chief engineer of the Aspen Smelting Company's plant. Mather's ledger notes regarding the erection of the Glenwood power plant provide information about sources of materials, including Pelton water

NARRATIVE STATEMENT OF SIGNIFICANCE

wheels (impulse turbines) from San Francisco; pine windows, doors, milled lumber, and "one barrel of boiled oil, with the amount of white lead and other things needed for that amount of oil, for priming and painting power house woodwork" from R.W. Stewart & Co. of Denver; Dodge split pulleys and one endless electric belt from Hendrie & Bolthoff of Denver; and dynamos, ammeters and voltmeters from the Brush Electric Co. of Cleveland, Ohio, an early leader in the field of electric arc lighting and power generating equipment supply.

Also involved with the incorporation of the Glenwood Light & Water Co. was Charles Doolittle, inventor of the Doolittle Differential Governor during the 1880s. This mechanism, soon to be incorporated into hydroelectric plants throughout the world, was designed to maintain constant speed in the hydroelectric plant's water wheels, and therefore closely regulate the power output of generators by adjusting the deflecting nozzle that directed the high-pressure water stream in required volumes toward the transformer paddles. Doolittle's technological innovation was implemented in Aspen shortly before construction of the 1888 Glenwood Springs plant, and with the inventor's presence on the project was likely to have been installed in Glenwood as well.

In tandem with the construction of the new plant, electric wires were extended throughout a larger area of Glenwood to provide more residents and businesses with power in this growing city of about 2000 citizens. Arc lighting was used to illuminate city streets, while building interiors were lit with early incandescent bulbs. By the beginning of November 1888, everything was ready for the commencement of plant operations. The old steam-driven plant was shut down at that time and electricity for the local power system began to flow from the new hydroelectric plant that converted the latent power of No Name Creek into light for the residents and businesses of Glenwood Springs.

Sometime between 1890 and 1893, a fifth dynamo was added to the Glenwood hydroelectric plant to handle increasing demand for power. Three years later, records show that the plant was supplying the town with thirty arc lamps powered by a Brush Arc Dynamo, and 1,750 incandescent lamps powered by a 500 horsepower Westinghouse alternator. By 1898, the original building was expanded with small additions to the east and west. The east addition currently found on the building was constructed to house a 90 horsepower steam engine, with two small boilers and a 44' chimney located in a farther east addition that is no longer present. The installation of this backup system was typical of early hydroelectric plants, the operators of which soon discovered that winter freezes and decreased flow in water supply streams prevented the plants from operating at full capacity at various times throughout the year. Between 1898 and 1904, another dynamo was installed and the original boilers were updated.

NARRATIVE STATEMENT OF SIGNIFICANCE

In 1895, with his Glenwood Hot Springs and electric power and water developments complete, Walter Devereux moved to New York to establish an engineering consulting practice. Management of the Glenwood Light & Water Co.'s hydroelectric plant fell to his primary local partners, F.H.A. Lyle (former manager of Devereux's Grand River Coal & Coke Co. and treasurer and manager of the Glenwood Hydroelectric Plant since the early 1890s) and Clifford C. Parks, who soon became known statewide as a prominent banker, Republican Party leader, mayor of Glenwood Springs, president of the Colorado Bankers Association, and Colorado State Auditor. Fred Kaiser was the chief electrician at the plant starting around 1900, and later served as president of the company during the 1940s.

With increasing demand for electric power, the issue of variable water flow rates in No Name Creek eventually became a significant problem for the Glenwood Springs Hydroelectric Plant, especially during the fall and winter months when the water supply would often drop to levels that forced the plant to shift to steam power. In May 1904, the company began to construct a pipeline and 2,803' long tunnel to convey water from Grizzly Creek above Glenwood Canyon to No Name Creek, thereby increasing the plant's supply to twenty cubic feet per second. After traveling 2.5 miles down No Name Creek from the end of the Grizzly Creek Tunnel, the water was then conveyed to the plant through the old wooden flume (which often failed and presented supply problems of its own). Upon entering the plant, a required volume of the water was diverted to a city domestic supply main, while the rest traveled through the water wheels for power generation and then into a tail race that terminated in the Grand River.

By 1912, the boilers were no longer being used and the plant was operating with a 200 kilowatt generator, a 22 kilowatt Westinghouse direct current generator, and one dynamo. Steam as a power source was discontinued in most electric plants across the nation by 1917 in part due to largely successful efforts at locating reliable water sources, and because of the rising cost of coal to fire boilers. With No Name and Grizzly Creeks providing the necessary water supply, the boilers in the Glenwood plant were removed around this time. Between 1912 and 1919, the small concrete barrel-roofed structure north of the main building was constructed for use as a transformer house for the plant's alternating current system. No further changes occurred to the power plant over the next four decades, other than the removal of the far east boiler room sometime between 1943 and 1956.

With Devereux gone, silver prices slumping, and the Colorado Midland Railroad in poor financial condition, the original English investors ultimately sold the Hotel Colorado and the hot springs spa (along with 100,000 shares of the Glenwood Light & Water Co.) in 1911 for $25,000 to New York investors, retaining ownership of the water system along with majority ownership of the

NARRATIVE STATEMENT OF SIGNIFICANCE

power plant. Three years later, however, Rathbone Brothers sold the water system (used for both power generation and domestic use), along with the water rights from No Name and Grizzly Creeks to the City of Glenwood Springs for $110,000 in municipal bonds. The city then entered a rental agreement (set at $1750 per year in 1920 for 12 cubic feet per second) to supply water to the privately-owned power plant so that it could generate electrical power for sale back to the city. This agreement included a provision that the company would maintain the pressure regulator located at the hydropower plant for the city's fire hydrants. Ownership of the power plant remained with the English investment firm until 1920, when it was sold to Glenwood businessman Elmer Lucas and his partner Charles McCarthy, who had acquired the Hotel Colorado and the hot springs from their New York owners in 1914.

By the mid-1920s, the Glenwood Springs Hydroelectric Plant was operating with three 150 horsepower impulse wheels (placed in and out of operation by a hand-operated clutch on the main shaft), along with one 200 kilowatt General Electric alternating current generator (2300 volts), one 6.5 kilowatt General Electric exciter (185 volts), and one 22.5 kilowatt direct current generator (125 volts). The capacity of the plant was limited by this time not by a deficiency in generating equipment, but by the restricted pressure of the water conveyed from Grizzly and No Name Creeks through an inadequate and antiquated transport system. With the growth in demand caused by an increasingly electrified consumer society, along with an increasing demand for water in the area, the plant had reached a point where it could no longer fully meet the community's needs, especially during the summer months when more water had to be diverted for domestic uses.

The city attempted to remedy this situation by digging a 4,100' water tunnel in 1924 from No Name Creek to the plant. However, the excessive cost of the tunnel (which only marginally improved electrical output from the plant) left the city in a position in which it had to recoup its investment by continuing to rent water to the old plant rather than shift to a more reliable and probably cheaper source of electricity. Consequently, the city was forced out of necessity to continue its relationship with the Glenwood Light & Water Co. and purchase additional electricity during shortfalls from the Colorado Power Company's Shoshone Plant (purchased by Public Service Co. in 1928), which was constructed between 1906 and 1909 several miles east of town in Glenwood Canyon. The Glenwood Springs Hydroelectric Plant continued to serve the community as best it could under the ownership of Lucas and McCarthy and their heirs for two more decades.

NARRATIVE STATEMENT OF SIGNIFICANCE

On 14 October 1947, a special election was held in Glenwood Springs for the citizens to vote on proposed ordinances that would allow the city to acquire the power plant for $225,000. With voters expressing strong support for the purchase at the ballot box, a bond issue was approved within one week and the 1888 Hydroelectric Plant was acquired by the city of Glenwood Springs and turned into a municipal power plant. The newly-designated Glenwood Springs Electric System was overseen by the city manager's office with a superintendent's office located at the old power plant, however the 1888 plant proved increasingly inadequate for the city's needs and costly to maintain. It was finally decommissioned in 1961 when the city signed an agreement to purchase less expensive electric power from Public Service Company's Shoshone Plant. The Glenwood plant's 200 kilowatt General Electric generator was transferred during the mid-1960s to the Electric Museum at the Rocky Reach Powerhouse on the Columbia River at Wanatchee, Washington, where it remains today. The 22.5 kilowatt Westinghouse direct current generator is on display at the Frontier Historical Society Museum in Glenwood Springs.

After more than 70 years of continuous use, the old Hydroelectric Plant was finally converted to use as a city shops facility and ceased operations as a source of electric power for the city of Glenwood Springs. Today the structure houses the Glenwood Center for the Arts, which uses the building as a gallery and for art classes.

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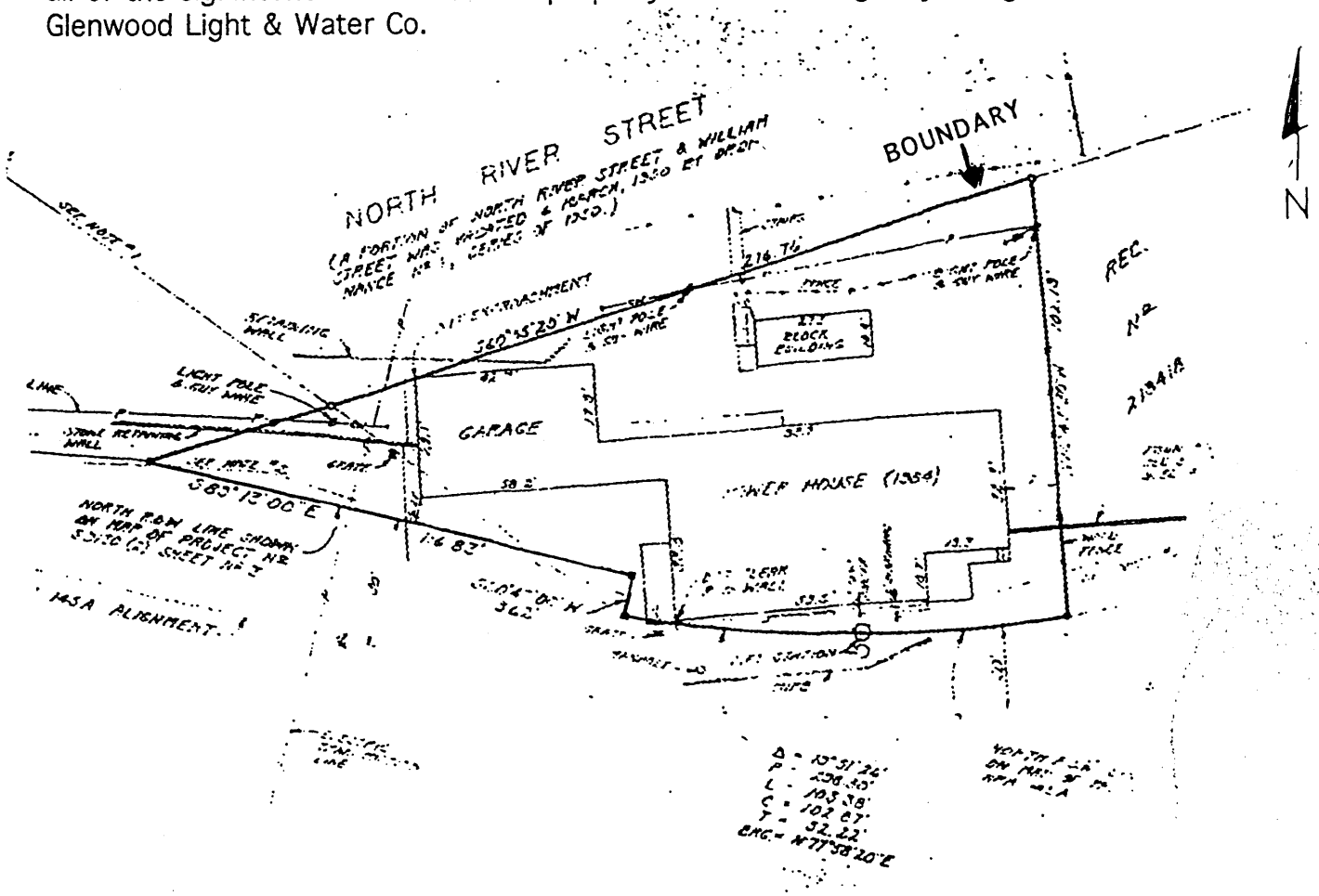
VERBAL BOUNDARY DESCRIPTION

The Glenwood Springs Hydroelectric Plant is located on Outlot Thirty-five (35) in the City of Glenwood Springs, Garfield County, Colorado. The property includes the land upon which the powerhouse stands, and the land immediately adjacent to the powerhouse within the irregular boundary lines filed on the official plat for the property with the Garfield County Clerk & Recorder and the City of Glenwood Springs.

BOUNDARY JUSTIFICATION

The nominated property includes, and is limited to, the land and improvements within the boundaries described above, occupied by the Glenwood Springs Hydroelectric Plant and surrounding grounds, parking areas, and underground hydroelectric plant equipment beneath and adjacent to the building. These boundaries were selected due to the fact that they include all of the significant features on the property that were originally designed and installed by the Glenwood Light & Water Co.



PHOTOGRAPH LOG

The following information applies to all photographs submitted with this registration form:

Name of property:	Glenwood Springs Hydroelectric Plant
City, county and state:	Glenwood Springs, Garfield County, Colorado
Photographer:	Ron Sladek
Date of photograph:	27 April 1998
Location of negative:	Tatanka Historical Associates, Inc. P.O. Box 1909, Fort Collins, CO 80522

Photograph #1: View of the south and west elevations of the Glenwood Springs Hydroelectric Plant, with the early west addition to the left. View to the northeast.

Photograph #2: View of the south and east elevations of the Glenwood Springs Hydroelectric Plant, with the early east addition to the right. View to the west.

Photograph #3: View of the north elevation of the Glenwood Springs Hydroelectric Plant, with the early west addition and the circa 1960 addition in the distance. View to the southwest.

Photograph #4: View of the concrete transformer shed north of the powerhouse. View to the west.

Photograph #5: View of the interior of the powerhouse. View to the southeast.

Photograph #6: View of the west elevation of the main building (to the far right), the western 1890s addition (small structure to the right), and the western circa 1960 addition (at center). View to the north.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number _____ Page 19 Property GLENWOOD SPRINGS HYDROELECTRIC PLANT

GARFIELD COUNTY, COLORADO

USGS MAP
GLENWOOD SPRINGS, CO