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.

1. Name of Property

Historic name: La Verkin Hydroelectric Power Plant
Other names/site number: Hydro No. 4
Name of related multiple property listing**:**
Electric Power Plants of Utah MPS
(Enter "N/A" if property is not part of a multiple property listing

2. Location

Street & number: Off south State Street
City or town: La Verkin State: UT County: Washington
Not For Publication: ☐ Vicinity: ☐

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

/SHPO

Signature of certifying official/Title: **Date**

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**

La Verkin Hydroelectric Power Plant
Name of Property

Washington County, UT
County and State

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

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private:	☐
Public – Local	X
Public – State	☐
Public – Federal	☐

Category of Property

(Check only **one** box.)

Building(s)	X
District	☐
Site	☐
Structure	☐
Object	☐

La Verkin Hydroelectric Power Plant | Washington County, UT
Name of Property | County and State

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

Contributing	Noncontributing	
1		buildings
		sites
3	1	structures
		objects
4	1	Total

Number of contributing resources previously listed in the National Register N/A

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6. Function or Use
Historic Functions
(Enter categories from instructions.)
INDUSTRY/energy facility

Current Functions
(Enter categories from instructions.)
RECREATION AND CULTURE/ outdoor recreation park

7. Description

Architectural Classification
(Enter categories from instructions.)
OTHER

Materials: (enter categories from instructions.)
Principal exterior materials of the property: CONCRETE, BRICK, METAL

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing 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

Constructed in 1929, the La Verkin Hydroelectric Plant is located in La Verkin, Washington County, on the north bank of the Virgin River (Photos 3 & 4) in Confluence Park, about 20 miles northeast of St. George. In this particular location, between La Verkin and Hurricane City, the riverbed is depressed in a deep canyon with large basaltic lava cliffs. The power plant is a two story square brick masonry building resting on a poured formed concrete foundation. Because this is a utilitarian building, it has no definitive architecture style. This may be due to the fact that the building was so remote that an impressive façade was not deemed necessary.[1] The site consists of the power plant, a switchrack and basalt stone retaining walls (Photo 23). Not included in the boundary, but historically associated with the power plant is a riveted steel penstock. The site is enclosed by a chain link and barbed wire fence. The building was constructed into the side of a small hill which creates a half-story entrance between the first and second floor on the north elevation. The hill slopes down to the south directly below the building to the Virgin River. A dirt access road is located north of the power plant and extends along the riverbed through Confluence Park. North of the power plant across the dirt road is the contributing metal penstock that extends up about 200 feet to the top of the cliff. There are two

[1] Most early 20th century power plants in Utah were designed with either Victorian or Period Revival stylistic influence—at least on the primary facade.

trees located on the west side within the fenced enclosure and some natural vegetation surrounding the site. Since its construction, the plant has had minimal alteration and retains the majority of its historic integrity, view shed, setting and associated feeling.

Power Plant

This facility was a 'high-head' power plant which required little water to generate power. Instead, it relies on the velocity of the water to power the turbines. The power plant is where the kinetic energy of moving water is converted by machinery into electricity. Although the building is located adjacent to the river, its water source is actually three miles upstream. The canal begins about three miles upstream before the Virgin River enters the canyon. Water was first diverted from the Virgin River into a settling pond where the silt was allowed to settle out. From the settling pond, a canal stretches along the north side of the Virgin River canyon wall and then goes through a quarter-mile tunnel before being funneled through a 42" pipe or penstock into the hydroelectric plant. The canal and tunnel have been demolished/buried under the housing subdivision at the top of the cliffs above the power plant.

The power plant is a two story square brick building facing west over a concrete slab foundation. The walls are three wythes thick with 6/1 American or common bond masonry. At the level of the window lintels on each floor is a soldier bond brick water table that is flush with the wall and extends across all elevations. The building has a medium pitched gable roof with the ridgeline extending east to west clad with terra cotta tiles—although many of the tiles are broken or missing. It overhangs the building about one foot on the north and south elevations and features exposed rafters. Because this is a utilitarian building, it has no definitive architecture style. It was constructed into a small hill that creates a half-story entrance between the first and second floor on the north elevation.

Exterior

West elevation

The main (west) elevation is symmetrical with three bays and a central entrance (Photo 4). The original door to the central entrance is gone and all that remains is the opening in the wall. Currently there is a metal bar gate in the opening preventing entry to the building. On the first floor, flanking the central doorway on either side is a large multi-paned steel window with concrete sills. The north window has a concrete lintel that extends over the central doorway while the south window has a soldier brick lintel which extends across all elevations. On the second floor, the three steel casement windows are evenly spread across the facade and also have concrete sills and soldier brick lintels. In the apex of the gable there is a window opening with a brick sill and steel lintel. All of the original window glazing has been broken out with only broken pieces of glazing remaining in some areas. Flanking both the north and south casement windows are the remains of a timber support that most likely was a small awning to provide shade for the upper floors during the hot summer months.

North elevation

The north elevation is built into the small hill which creates a half-story entrance into the first floor and has the entrance to the second floor (Photos 8 & 9). On ground level, there is an

entrance located near the right corner and would allow one to step down a flight of stairs to the first floor. This opening appears to have its original metal door with multi-pane divided lights although the glazing has been broken out with small pieces remaining. Near the left corner is a steel casement window with a concrete sill and steel lintel. The soldier brick water table from the first floor windows on the other elevations is located near the bottom of this north wall. Centrally located in front of the north elevation is a large square concrete-lined opening/pit in the foundation which allowed for the penstock across the dirt road to enter the power plant and provided the foundation for an exterior staircase to the central entrance on the second floor. And, although penstock connection to the Pelton wheel is extant on the first floor interior, approximately 50 feet of the exterior pipe was removed where it crossed the road from the hillside. The opening has been covered with steel plates (Photo 10) and the staircase has long been demolished. It's unknown at what time the staircase was removed. Currently there is no access to the second floor. On the second floor, the doorway is located slightly off center to the left with a concrete sill and steel lintel. This also has its original steel door with multi-pane divided lights with no glazing. To the right of the doorway, above the entrance on the ground level is a casement window that matches the casement windows on the second floor west elevation. To the left of the doorway is a small steel window. Above the openings is a soldier brick water table that extends across all elevations. It should be noted that all three steel windows are different sizes on this facade. All of the original window glazing has been broken out with only broken pieces of glazing remaining in some areas.

East elevation

On the east elevation (Photos 6 & 7) there is a small opening in the bottom of the wall near the center where it's assumed that pipes exited the power plant. While their purpose is unclear as there is nothing left besides this opening, pipes on the interior that run from the second floor to the opening suggest culinary or waste water use. The two first floor windows match the small steel window located on the left side of the doorway on the second floor north elevation. The windows are located slightly off center to the left and have concrete sills and soldier brick lintels part of the extended water table. On the second floor, the three metal windows are all different from each other. The window located on the right matches the metal casement windows on the west elevation. The center small metal sash window matches the ones on the first floor and the window on the left is a taller metal sash window. All windows have concrete sills and a soldier brick lintel that is part of the water table. In the apex of the gable there is a window opening with a brick sill and steel lintel. All of the original window glazing has been broken out with only broken pieces of glazing remaining in some areas.

South elevation

In the south wall's concrete foundation is a central opening for the tailrace pipes to exit the power plant to dump used water into the Virgin River located adjacent to the power plant. On the first floor are three metal casement windows that match the windows on the second floor west elevation. All have concrete sills and soldier brick lintels as part of the water table. On the second floor are two metal casement windows located near either end of the wall that match the windows on the first floor. All of the original window glazing has been broken out with only broken pieces of glazing remaining in some areas.

Interior

Main floor

On the interior, the main floor has a large open square plan. Two small closets are located in the southeast corner of the room (Photo 17 & 18). In the northwest corner is the outline of a dogleg staircase that descended from the ground level doorway in the north wall (Photo 15). Below this corner staircase is a small closet in the wall that contains an old electrical breaker box. On the north wall is an alcove where the penstock entered the building and connected to the Pelton wheel (photo 11). The entire space was finished with a light colored plaster but is in a deteriorated condition and covered in graffiti. The concrete floor is mostly covered by roughly two feet of silt and other debris. Large double metal tracks for an overhead crane are located on the ceiling and run north to south (Photo 13 & 16). The power technology of this facility is typical of high-head hydroelectric power plants. In the center of the room is a large heavily damaged Pelton wheel with an attached generator on the east side (Photos 12, 17, 20, 21 and 22). In the southwest corner is the remains of an electric switchboard with marble slabs mounted onto a steel frame (Photo 14). This electrical infrastructure is most likely original to the plant.

Second Floor

The second story was reserved for the operator's quarters. As there is no current access to the second floor, the floor plan was estimated by looking at the placement of walls through several holes in the ceiling of the first floor. It appears that one would enter through the doorway in the north wall to a small entry room from which four additional doorways open into separate rooms in each corner of the building. Reportedly, the room in the northwest corner was the kitchen.[2] The function of the other rooms is unclear but presumably would be for bedrooms and perhaps a bathroom.

Setting

The La Verkin Hydroelectric Plant is located on the slope of the north bank of the Virgin River about 20 miles northeast from St. George, Utah. In this particular location, the riverbed is depressed in a deep canyon with large basalt cliffs between La Verkin and Hurricane City. The power plant is a west facing, two-story square brick masonry building over a poured concrete foundation. Directly northwest of the building is a contributing switchrack with transformers. Both the switchrack and power plant are enclosed by a modern chain link and barbed wire fence. North of the power plant across the dirt road is the metal penstock that extends up about 200 feet to the top of a cliff. A dirt road is located north of the power plant and extends along the riverbed throughout Confluence Park. On the north side of the dirt road, in the northwest corner is a three-foot-tall stone retaining wall that extends about 25 feet along the north side of the dirt road. This is reportedly where a small garden of flowers was located in the late 1920s.[3] There are two deciduous trees located within the fenced enclosure and some natural vegetation surrounding the site.

[2] Kathleen Nielson, interview by Alena Franco, La Verkin UT, February 22, 2021.

[3] Ibid.

Site Features

Switchyard

Directly northwest of the power plant is a contributing switchyard which consists of a switchrack (frame tower) constructed of riveted steel angle and flat pieces with a roughly 10-foot-square footprint and 20 feet tall (Photos 23 & 24). The switchrack supports large transformers and insulators that connected electrical cable to the power plant. The transformers are cylindrical metal structures and covered with radiator fins that serve to dissipate heat. The function of a transformer is to increase the voltage of electricity for transmission to substations, where the electricity is then passed through step-down transformers to distribute to customers. There are no power lines currently connected to it.

Retaining Wall

There are two sections of retaining wall that are assumed to have been built at the time as the power plant and are contributing structures (Photos 25 & 26). The walls are constructed of random rubble basalt laid in a lime mortar. The largest and most visible is the two-tiered section that runs roughly east/west and supports the switchyard structure. Approximately forty feet long, the main tier is approximately four feet tall at the east end, diminishing to about two feet at the west end. Resting on top of a portion of this wall is an approximately four-foot-tall poured/formed concrete wall. The wall bends at the midpoint at an approximately 30° angle to the north. The lower section, which is located just to the west of the larger section is only about twenty feet long and a couple of feet tall. This section connects, along with the upper section to a concrete stairway that runs along the north elevation of the power plant (Photo 27). The second retaining wall is mostly at ground level and creates the southern boundary of the yard.

Chain Link Fence

There are two sections of prominent chain link fencing that are more recent non-contributing structures. The older section fences off the west side of the yard and has an opening for road access. The other newer section runs along the south edge of the property, but only along the area where the building is located.

Penstock

Although not a contributing structure, as it is located outside of the nomination boundary, it is worth noting the 42” diameter welded and riveted steel penstock that historically connected to and fed water to the power plant. It is located north of the power plant, directly across the access road (Photos 28 & 29). Historically, the penstock connected at the top of the cliff to a tunnel that brought water from the Virgin River about three miles upstream. Any remains of the tunnel are gone, buried under more recent housing subdivisions. The penstock descends from the top of the 200-foot-tall cliff downhill to the power plant. This sharp drop in elevation would allow water to gain velocity before it got directed into the pelton wheel turbines. It should be noted that the current penstock is not original. The original penstock was made of wood but was replaced with this steel pipe in the mid-twentieth century. It was common for penstocks to be altered or replaced as wood pipes deteriorated with constant contact with water and silt. Again, the penstock is under separate ownership for now and is not being included in the nomination boundary.

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.)

[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 the boxes that apply.)

[ ] 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.)
INDUSTRY

La Verkin Hydroelectric Power Plant | Washington County, UT
Name of Property | County and State

Period of Significance
1929-1972

Significant Dates
1929
1934

Significant Person
(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation
N/A

Architect/Builder
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 any applicable criteria considerations.)

The La Verkin Hydroelectric Plant, constructed in 1929 and located in La Verkin, Washington County, is locally significant under Criteria A in the area of Industry. The plant is significant for its association with the development of hydroelectric power in Washington County during the early to late twentieth century. It was the biggest power plant in a network of four plants managed by Dixie Power in the early-twentieth century and early on provided all the electricity needed for Hurricane, La Verkin, Toquerville, Virgin, Rockville, and Springdale.[4] If all four plants were offline, it was the La Verkin facility that had to be started up first. Over the years, minor alterations were made to the plant including replacing the wood pipe penstock with metal and upgrading the electricity generating equipment to be semi-automated so that operators did not have to live on the premises. The period of significance starts in 1929, the year of construction and ends in 1972, the fifty-year cutoff for National Register purposes, though the plant continued in operation until it officially closed in 1983. Despite minor historic and non-historic alterations and loss of some integrity in materials due to deterioration from abandonment and vandalism, the plant retains the majority of its historic integrity overall in location, setting, design, workmanship, feeling and association. and remains an example of high-end type of hydroelectric plants dating from the early twentieth century in Utah.

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

Criteria A Significance: Industry

The La Verkin Power Plant is significant in the area of Industry under Criterion A for its association with the development of hydroelectric power in Washington County during the early to late twentieth century. The building was the fourth and largest power plant constructed by the Dixie Power Company in order to meet the demand for electricity in Washington County. Early on the plant provided all the electricity needed for Hurricane, La Verkin, Toquerville, Virgin, Rockville, and Springdale.[5] If all four plants were offline, the La Verkin facility was required to be started up first to get the network going. Even up until 1975, it was stated that although its output could not supply all the demand for electricity as it once did, it still provided the most economical source for electricity in the area.[6] Hydroelectric power was important because it generated relatively cheap electricity for cities, businesses, factories, and individual consumer uses. Important events in Washington County history, such as urbanization and industrialization (primarily mining) all benefited from the availability of electricity. The power plant also illustrates the technology of hydroelectric power during the period of significance by showcasing

[4] Richard Howard, "La Verkin Canal-a symbol of pioneer work and industry," *The Daily Spectrum* (St. George, UT), Nov 13, 1975.

[5] Ibid.

[6] Ibid.

the engineering methods, technology and architecture typical of such buildings during the early twentieth century.

Hydroelectric Power in Washington County

The first power company in Washington County was formed in St. George in 1909. There is very little written about the first power plant. What is known is that it was a small municipal power plant that supplied electrical power to the city. In less than a year of its operation, city officials purchased the company and operated the plant until 1916. After this, there are conflicting reports about what happened to the plant. One source notes that it was closed and demolished shortly thereafter.[7] Another source states the plant was sold to a private investor who eventually created the Southern Utah Power Company.[8] The early power plant is no longer extant and it is unknown exactly who owned it and when it was demolished.

In 1917, the Dixie Power Company was organized with the goal to supply electricity to towns throughout the county. Between 1917 and 1929, Dixie Power built four hydroelectric plants that generated electricity for almost all major towns in Washington County including Zion National Park. The first of these plants was Gunlock Power Plant (1917), known as the original plant. This plant was eventually moved and sold when Dixie Power decided to build a larger plant at Gunlock in 1925 to meet demand for electricity. The other two plants were constructed at Veyo (1920) and Sand Cove (1920).[9]

All of these plants were of the high head type, commonly found throughout Utah, and often with Pelton wheels for the turbines (also known as impulse turbines). A ‘high head’ is derived from the height difference between where the water enters the hydro system and where it leaves it. For this power plant, the water enters the system 6 miles upstream and travels along the cliff before descending roughly 200 feet to the power plant. Although there is no hard rule regarding head height, generally anything above 98 feet of ‘head’ or descent is considered ‘high’ head. In high head plants, the velocity of water is more important than the volume in terms of generating electricity. These "high-head"' plants were designed to take advantage of Utah's environment, which has many small mountain streams. High-head plants require little water to generate power, instead relying on the velocity of the water to power the turbines. The water gained velocity as it was conveyed downward hundreds of feet through steeply-inclined pipelines built on the sides of canyons.[10] The water would then travel down the penstock and pass through nozzles, which shoot the water at extremely high pressure into buckets mounted around a Pelton

[7] National Register of Historic Places, Santa Clara Hydroelectric Power Plants Historic District, Veyo, Washington County, Utah, National Register # 89000281. Section 8 Page 3.
[8] Douglas D. Alder and Karl F. Brooks, *A History of Washington County: From Isolation to Destination* (Salt Lake City: Washington County Commission, 1996),252.
[9] National Register of Historic Places, Santa Clara Hydroelectric Power Plants Historic District, Veyo, Washington County, Utah, National Register # 89000281. Section 8 Page 2-5.
[10] Ibid, Section E Page 10-11.

wheel turbine. The most striking feature of these turbines is their covering, or scroll case, which looks like a big snail shell.[11]

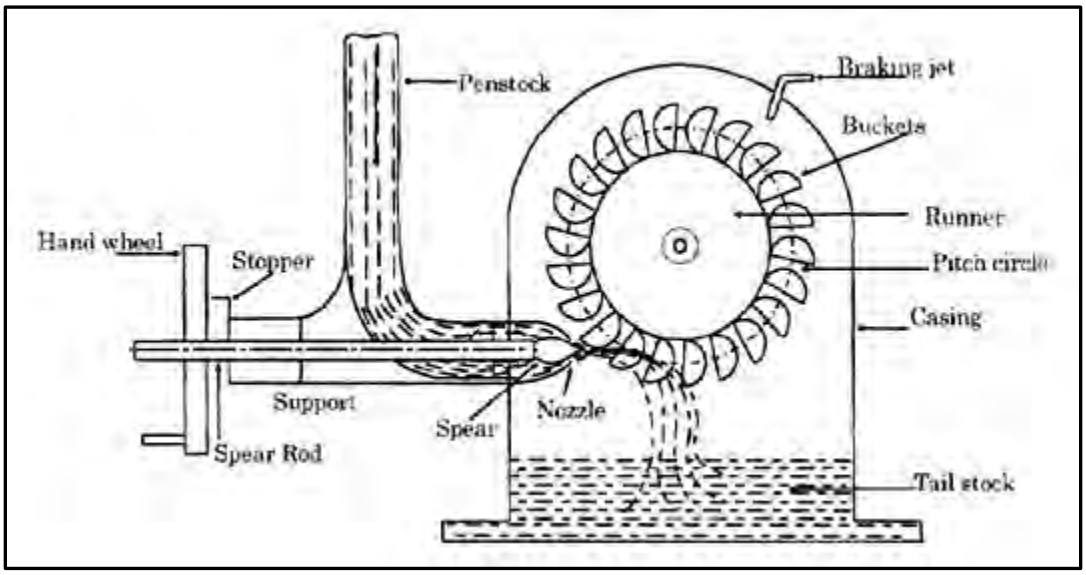

Figure 1. Pelton Turbine diagram. [12]

These plants, while built separately and far apart from each other, operated with each other. The Sand Cove plant was used to regulate the demand on the Gunlock and Veyo plants during peak load times. Despite these improvements, Dixie Power Company could not keep up with the demand for power. As a result, in 1929, they arranged with the La Verkin Canal Company to supply water for another hydroelectric power plant near La Verkin called "Hydro No. 4".[13] This plant became known as the La Verkin Power Plant and was the largest plant in the network.[14]

In 1930, Dixie Power Company was acquired by the Washington Gas and Electric Company. A couple years later the name was changed to Southern Utah Power Company. During that decade, the Southern Utah Power Company continued to maintain and upgrade their facilities with minor modifications. In 1934, the generating equipment in "Hydro No. 4" (La Verkin Power Plant) was replaced.[15] By the late 1930s, the plants were bought and operated by the California Pacific

[11] National Register of Historic Places, Electric Power Plants of Utah MPS, Utah, National Register # 64500664. Section F Page 45.

[12] "Basic Mechanical Engineering: Q. Explain the working of pelton turbine," RGPV Online, accessed July 15, 2021, https://www.rgpvonline.com/answer/basic-mechanical-engineering/15.html.

[13] National Register of Historic Places, Santa Clara Hydroelectric Power Plants Historic District, Veyo, Washington County, Utah, National Register # 89000281. Section 8 Page 3.

[14] Victor Hall, "Selected Topics related to Hurricane, Utah." (Washington County Historical Society, 2003) 12.

[15] There is no mention in the plant's history of what was replaced, but there is later mention of minor alterations. No exact date is provided, but the changes most likely occurred after 1934.

Utilities Company. During the early 1980s Utah Power and Light acquired the plants and have operated them since that time.[16]

History of La Verkin Power Plant "Hydro No. 4"

In the late 1920s, there was a great demand for more hydroelectric power in Washington County. In response, the Dixie Power Company arranged with the LaVerkin Canal Company to obtain water rights for the purpose of producing hydroelectricity. A document from July 12, 1928 states the company applied for a permit to build an 899 kilowatt capacity hydroelectric plant at an estimated cost of $90,000. This would include laying one thousand feet of a 42" wood pipe and the starting of concrete work for the canal. Construction started in December 1928.[17]

During construction, water was diverted from the La Verkin irrigation canal that began about three miles upstream before the Virgin River entered the canyon. Water from the irrigation canal went into a pond where the silt was allowed to settle. A sluice gate flushed the settling pond when necessary. From the settling pond, water flowed through a canal along the Virgin River Canyon and entered a quarter-mile-long tunnel before emerging on the La Verkin bench. From this point, a 42" diameter pipe funneled the water to the plant, where it powered the Pelton Wheel.

By April 1929, it was reported that the plant, originally called "Santa Clara No. 4 or Hydro No. 4", was operational and that Fred Brooks would be in charge of the facility.[18] Over the years, minor alterations took place including replacing the wood pipe with metal and upgrading the electricity generating equipment to be semi-automated so that operators did not have to live on the premises.[19]

The La Verkin Power Plant was the largest in the Dixie Power Company network with three other hydroelectric plants (Gunlock, Veyo, and Sand Cove). The plant is a high-head type of plant where water at high velocity is fed over a Pelton wheel which is then connected to a generator. The output of the power plant was about the same as the small generator at Hoover Dam that generates power for use at the dam.[20]

There were major issues to be aware of when managing the plant. The Pelton wheel was designed to run within a specific RPM and if allowed to go too fast, it could cause damage to the wheel. Repair of a damaged Pelton Wheel required the work of a welder who would crawl inside the tight space to access the damaged area. At the La Verkin plant, Winston Stratton was the skilled worker who usually made the necessary repairs.

16 National Register of Historic Places, Santa Clara Hydroelectric Power Plants Historic District, Veyo, Washington County, Utah, National Register # 89000281. Section 8 Page 4-5.

17 Victor Hall, "Selected Topics related to Hurricane, Utah," 12.

18 Ibid.

19 Ibid.

20 Ibid.

There were many other potential problems that could occur at the power plant as well. The canal and water flow had to be constantly monitored for leaks that could possibly displace yards of the canal bank if left unchecked. Abrasion from silt in the water could wear out the Pelton wheel and air bubbles could cause ruptured pipes. All of this meant that the canal, penstock, and power plant had to be maintained regularly by the operator.

Kay McMullin was the chief operator of the plant from 1958 until 1983, when it was closed down. Kay later reported that:

> He ordinarily worked alone. Maintaining flow through the canal and through the pipe was his constant year-round concern. The canal bank was no more than six inches wide in many places; falling off the bank one way meant getting wet, falling the other meant landing on rocks ten to twenty feet below. Walking such a bank, even on a nice day, takes getting used to; Kay walked it at night and when he had to kick snow off to see where to step. Once he was making his way along the bank after an eight-inch snow fall. He slipped. His shovel flew out into the canyon. He dropped into the icy water. Fortunately, he had stashed emergency supplies at intervals along the canal. He retrieved some matches, got a fire going, and lived.[21]

In 1983, Kay McMullin returned from a vacation to find the Pelton wheel and other machinery in shambles. It is unknown what exactly caused the damage. Though it has been theorized that lightning from a storm may have caused a power shut-off and the deflector plate may have failed to fall into place. This would have deflected the high pressure water into the tailrace, thereby saving the pelton wheel from spinning out of control. Another theory is that the Pelton Wheel was sabotaged by a disgruntled ex-employee. Ultimately, whatever the cause, the Pelton wheel spun out of control and ruined the equipment. Rebuilding was deemed economically unfeasible and much of the equipment and some parts of the penstock was sold as scrap metal. Sometime after this event, Dixie Power Company either sold or gave the property to Washington County. Today the building lays vacant and in a deteriorated condition. Currently, the property is within Confluence Park, a 344-acre nature preserve/park managed by Washington County. There are future plans to rehabilitate the building and to create an interpretive site for visitors to the park.[22]

[21] Ibid, 13.

[22] Ibid, 12- 13.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Alder, Douglas D, and Karl F. Brooks. *A History of Washington County: From Isolation to Destination*. Salt Lake City: Washington County Commission, 1996.

"Basic Mechanical Engineering: Q. Explain the working of pelton turbine." RGPV Online. Accessed July 15, 2021. https://www.rgpvonline.com/answer/basic-mechanical-engineering/15.html.

Hall, Victor. "Selected Topics related to Hurricane, Utah." Washington County Historical Society, 2003. Accessed March 11, 2020. https://wchsutah.org/documents/hurricane-selected-topics.pdf.

National Register of Historic Places, Santa Clara Hydroelectric Power Plants Historic District, Veyo, Washington County, Utah, National Register # 89000281.

National Register of Historic Places, Electric Power Plants of Utah MPS, Utah, National Register # 64500664.

Nielson, Kathleen. Interview by Alena Franco. La Verkin UT. February 22, 2021.

Howard, Richard. "La Verkin Canal-a symbol of pioneer work and industry," *The Daily Spectrum* (St. George, UT), Nov 13, 1975.

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 # _____
____ recorded by Historic American Landscape Survey # _____

La Verkin Hydroelectric Power Plant | Washington County, UT
Name of Property | County and State

Primary location of additional data:

____ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other
Name of repository: _____

Historic Resources Survey Number (if assigned): _____

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10. Geographical Data

Acreage of Property __Less than one acre_____

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates
Datum if other than WGS84:_____
(enter coordinates to 6 decimal places)

1. Latitude: 37.195893° Longitude: -113.279488°
2. Latitude: Longitude:
3. Latitude: Longitude:
4. Latitude: Longitude:

Or
UTM References
Datum (indicated on USGS map):

☐ NAD 1927 or ☐ NAD 1983

1. Zone: Easting: Northing:
2. Zone: Easting: Northing:
3. Zone: Easting: Northing:
4. Zone: Easting : Northing:

La Verkin Hydroelectric Power Plant | Washington County, UT
Name of Property | County and State

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary includes the roughly rectangular parcel of the fenced switchyard that contains the power plant and switchrack. See Boundary Map for detail.

Boundary Justification (Explain why the boundaries were selected.)

The boundary was chosen to convey the historical feeling and context of the power plant and includes the extent of the fenced power plant yard and associated features that were part of the power plant infrastructure. Although the penstock contributes to the site, it is under separate ownership for now and is not included in the boundary.

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11. Form Prepared By

name/title: Alena Franco/Utah SHPO Staff
organization: Utah State Historic Preservation Office
street & number: 300 S. Rio Grande Street
city or town: Salt Lake City state: UT zip code: 84041
e-mail afranco@utah.gov
telephone:
date: April 21, 2022

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

La Verkin Hydroelectric Power Plant
Name of Property

Washington County, UT
County and State

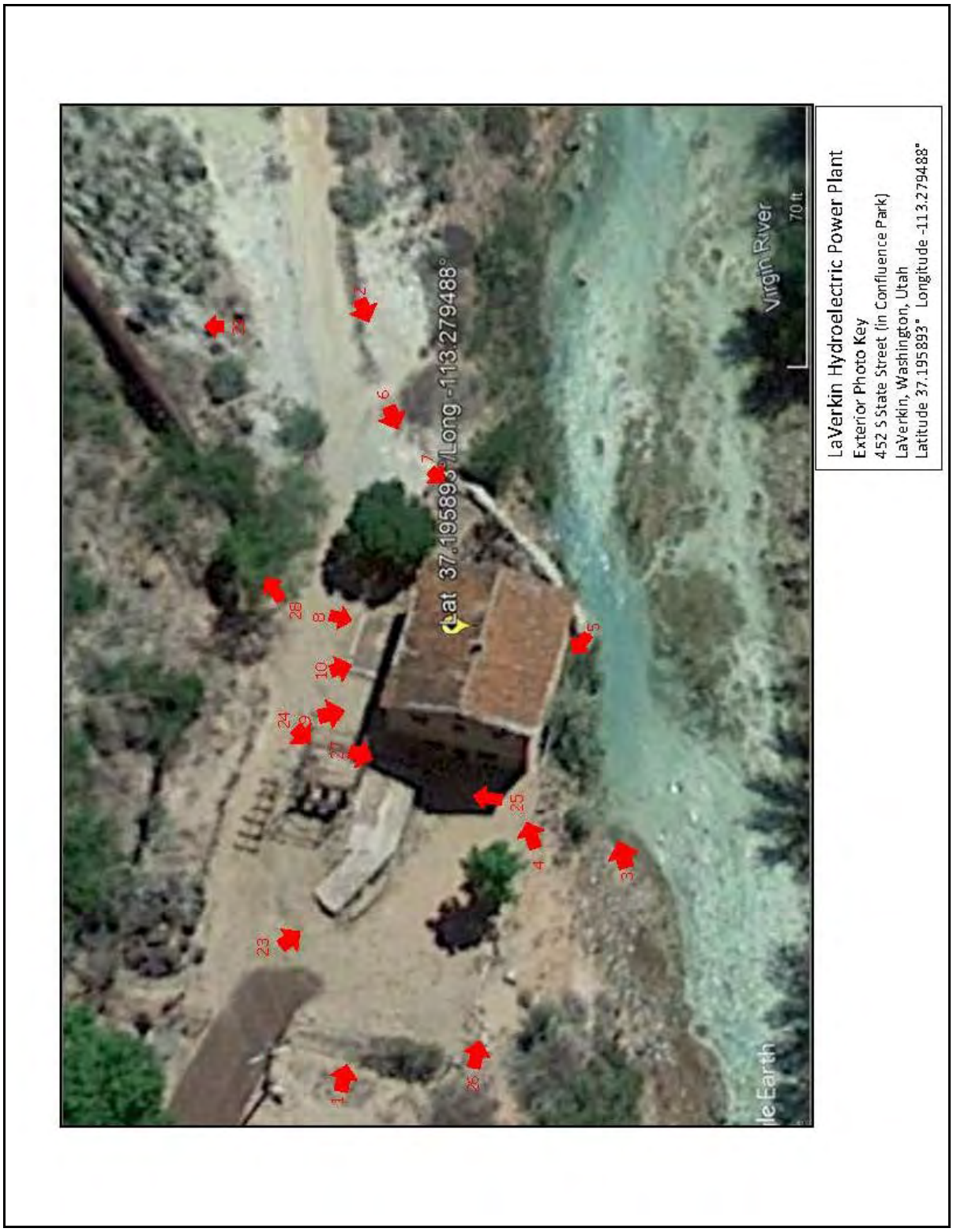
LaVerkin Hydroelectric Power Plant
452 S State Street (in Confluence Park)
LaVerkin, Washington, Utah
Latitude 37.195893° Longitude -113.279488°

La Verkin Hydroelectric Power Plant
Name of Property

Washington County, UT
County and State

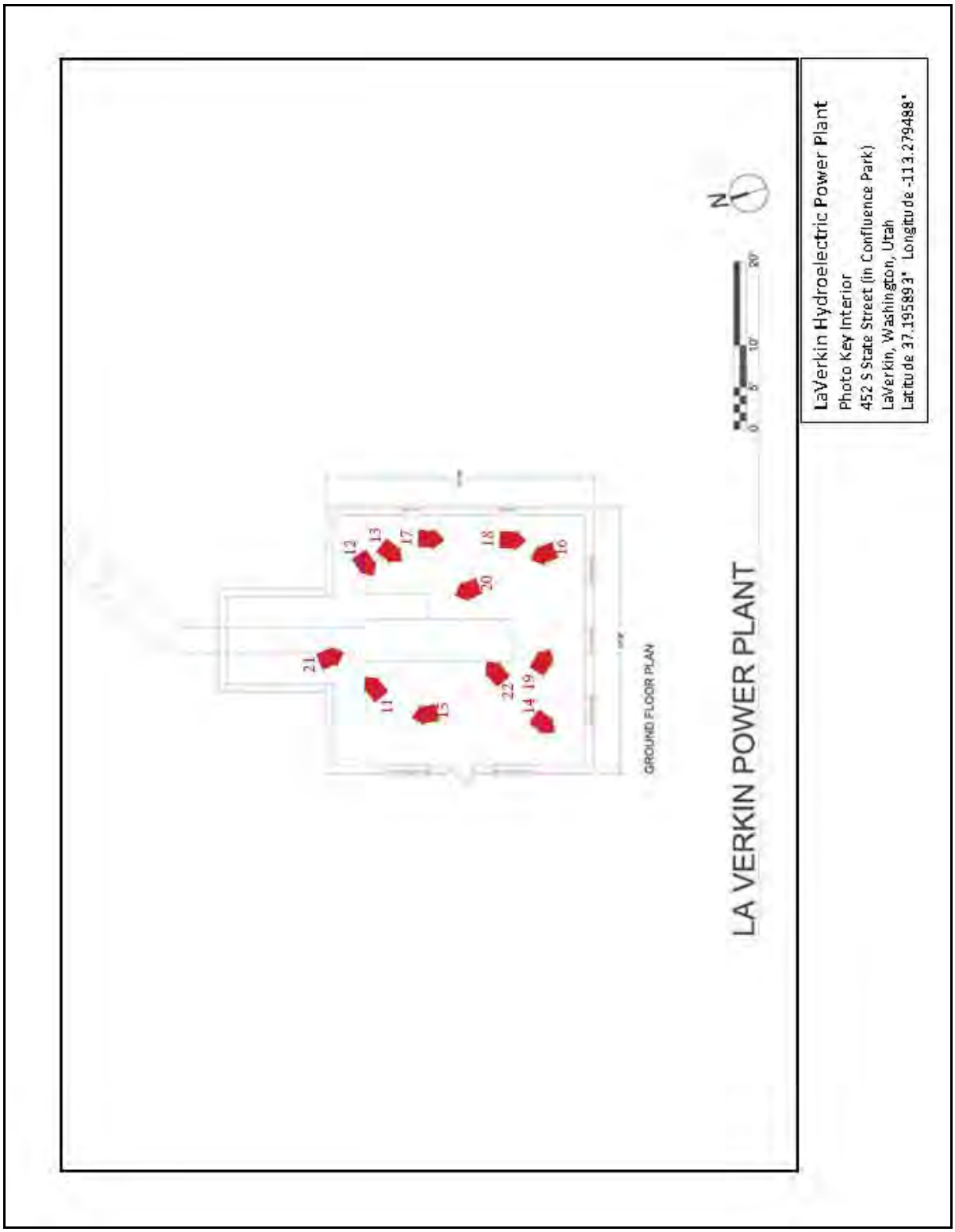
La Verkin Hydroelectric Power Plant
Name of Property

Washington County, UT
County and State



La Verkin Hydroelectric Power Plant
Name of Property

Washington County, UT
County and State



Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, 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: La Verkin Hydroelectric Power Plant

City or Vicinity: La Verkin

County: Washington State: Utah

Photographer: Cory Jensen

Date Photographed: February 2021

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 29. Overview of power plant site from the west. Camera facing east.

2 of 29. Overview of power plant site from the east. Camera facing west.

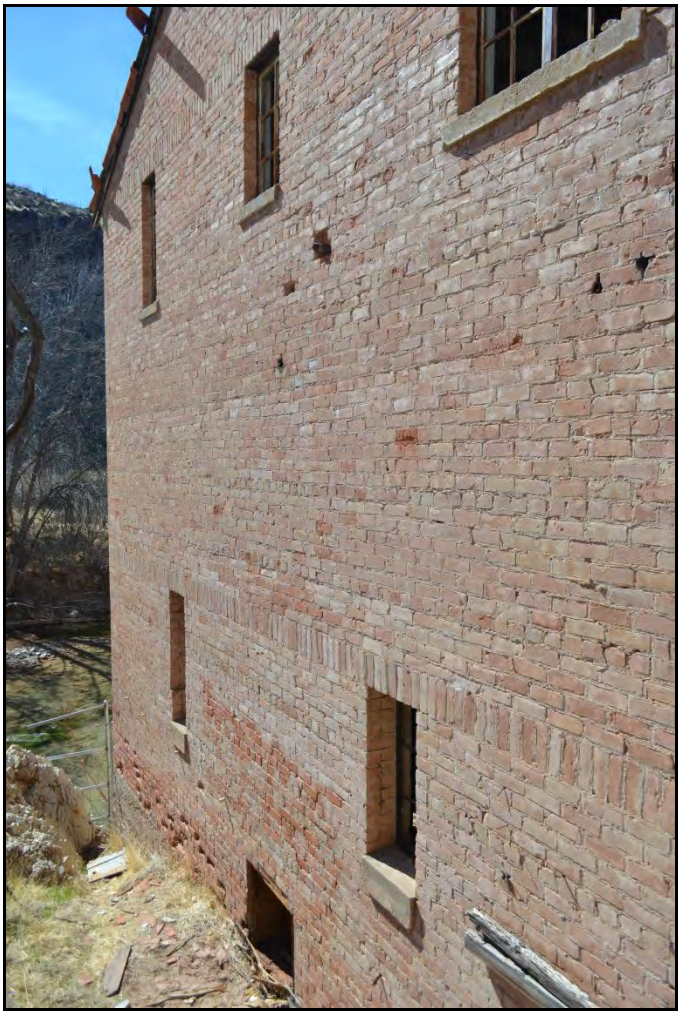
3 of 29. Power Plant on bank of Virgin River. Camera facing east.

4 of 29. South and west elevations. Camera facing east.

5 of 29. Close-up of pipe access in foundation, south elevation. Camera facing north.

6 of 29. North and east elevations. Camera facing west.

7 of 29. Close-up of east elevation. Camera facing south.



8 of 29. North elevation. Camera facing southwest.

9 of 29. North and west elevation. Camera facing south.

10 of 29. Original penstock entrance, north side of building. Camera facing south.

11 of 29. Interior view of alcove penstock entrance. Camera facing northeast.

12 of 29. Interior overview of south and west walls. Camera facing southwest.

13 of 29. View of ceiling and crane track/support. Camera facing southwest.

14 of 29. Interior switchboard remnant. Camera facing southwest.

15 of 29. Interior northwest corner showing ghost of staircase. Camera facing northwest.

16 of 29. Interior view of north wall, turbine and pelton will case. Camera facing north.

17 of 29. Interior view of turbine remnant and doors to small interior rooms. Camera facing southwest.

18 of 29. View of small interior rooms, southeast corner. Camera facing southeast.

19 of 29. Partial view of Pelton wheel/penstock and south wall. Camera facing southeast.

20 of 29. Turbine and Pelton wheel casing. Camera facing northwest.

21 of 29. Pelton wheel casing and turbine. Camera facing southeast.

22 of 29. Detail of Pelton wheel inside casing, showing runner and buckets. Camera facing north.

23 of 29. Switchyard infrastructure and power plant west elevation. Camera facing southeast.

24 of 29. Close-up of switchyard infrastructure. Camera facing southwest.

25 of 29. Basalt and concrete switchyard retaining walls. Camera facing north.

26 of 29. Basalt boundary/retaining wall. Camera facing southeast.

27 of 29. Exterior stairway connected to west building exterior wall and switchyard retaining wall. Camera facing southwest.

28 of 29. Overall view of penstock descending down hillside (not within nomination boundary). Camera facing northeast.

29 of 29. Close-up of penstock section (not within nomination boundary). Camera facing northwest.