

CENTER CREEK HYDROELECTRIC PROJECT PAROWAN CITY, UTAH

Application for Surrender for a Minor Water Power Project

Project No. P-1273-UT

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

PAROWAN CITY
(A Utah Municipal Corporation)

Application for Surrender for a Minor Water Power Project Project No. P-1273-UT

CENTER CREEK HYDROELECTRIC PROJECT PAROWAN CITY

June 23, 2011

Sunrise Engineering, Inc. 25 East 500 North Fillmore, UT 84631 (435) 743-6151 The Following Exhibits and Appendixes are filed herewith, and are hereby made a part of this Application:

Exhibit A

Project Description and Operation

Exhibit 1

Project Map

Exhibit E

Environmental Report

Appendix 1

Articles of Incorporation and Utah Code in RE: Municipal Power

Systems

Appendix 2

Water Rights

Appendix 3

Letter from Parawon Reservoir Company

CENTER CREEK HYDROELECTRIC PROJECT

PAROWAN, UTAH

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION:

APPLICATION FOR SURRENDER OF LICENSE FOR A MINOR WATER POWER PROJECT

Parowan City applies to the Federal Energy Regulatory Commission for the surrender of the License, FERC No. P-1273-UT

The location of the project is:

State: Utah County: Iron

Township or nearby town: Parowan

Stream or other body of water: Center Creek (known as Parowan Creek)

The exact name, business address, and telephone number of the applicant is:

Parowan City P.O. Box 576 5 South Main Street Parowan, Utah 84761 Tel: (435) 477-3331

The exact name, business address, and telephone number of each person authorized to act as agent for the applicant in this application:

Donald Landes, Mayor

Parowan City
P.O. Box 576
Parowan, Utah 84761
Tel: (435) 477-3331

Shayne Scott, City Manager

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David E. Lund, P.E.

Principal Engineer Sunrise Engineering, Inc. 25 East 50 North Fillmore, Utah, 84631 Tel. (435) 743-6151

Jacob W. Coats, E.I.T.

Sunrise Engineering, Inc. 25 East 50 North Fillmore, Utah, 84631 Tel. (435) 743-6151 The provision of the Federal Energy Regulatory Commission "Hydroelectric Project Handbook" for which surrender of license is requested is:

18 CFR 6.1

The applicant is a municipality incorporated under the laws of the State of Utah

The statutory requirements of Utah, the state in which the project is located, that affect the project with respect to bed and banks and the appropriation, diversion, and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting, and distributing power and in any other business necessary for the purposes of the license under the Federal Power Act are:

- A. The Utah Water and Irrigation Act, § § 73-1-1 et seq. Utah Code Annotated, under which the applicant appropriates, diverts and uses, for power generation, the existing flowing water in the State, and may exercise eminent domain to obtain a right of way for the construction, maintenance, repair, and use of all facilities pertaining to such power generation.
- B. The Wildlife Resources Code of Utah, § § 28-13-1 et seq., Utah Cade Annotated, creates the Utah Division of Wildlife Resources; and § § 23-15-1 et seq., Utah Code Annotated, establish the jurisdiction of the Division over aquatic wildlife for the protection of such wildlife. Under those statutes, the applicant may not divert or drain waterways without proper notice to and authorization from the Division, may not divert water for power purposes without appropriate devices to protect fish, and may not pollute certain waters.
- C. The Utah Water Pollution Control Act, § § 26-11-1 et seq., Utah Code Annotated prohibits the applicant from polluting waters of the State and requires the applicant to comply with water quality standards.
- D. The Utah Parks and Recreation Act, § § 63-11-1 et seq., Utah Code Annotated, creates the Utah Division of Parks and Recreation. The applicant must coordinate its project with the Division of Parks and Recreation if the development of hydroelectric sites affects the utilization of state parks.
- E. The Utah Development Services Act, § 63-33-1 et seq., Utah Code Annotated, creates the History Division. The applicant must coordinate with the Division if the development of the project would affect the preservation of state historical sites.

1. Brief project description:

a) Brief description of intake facilities, powerhouse, and any other structures associated with the facility:

The Center Creek Hydro Electric Power Project operates by obtaining water from Parowan Main Creek; it is diverted at the fore bay into a flow equalization basin or holding ponds. Two pipelines lead from the pond. The first serves the pressurized irrigation system for the users within Parowan City, the second carries water to the power plant. The penstock that carries water to the power house consists of approximately 18,825 lineal feet of steel pipe. It ranges from 26 inches in diameter at the top to 18 inches in diameter where it delivers to the power house. The turbine at the power house is a pelton wheel attached to a 600 KW generator. After the energy is consumed through power generation process the water is then divided among the various distribution streams to the agricultural users.

The decommissioning of the Project will be accomplished by granting the rights and liability of the diversion structure and steel penstock with the pertaining assemblies to the four associated Irrigation Companies that use and disperse the water. These four Irrigation Companies will be responsible for maintenance and repairs to the penstock after decommissioning. The penstock will be required to be modified at the Powerhouse such that the water will no longer pass through the foundation of the building or through city property. Additional modification will be required throughout the city boundaries where the penstock en-crouches private property. (See Exhibit 1)

The Powerhouse, generator, pelton wheel turbine, Fore-bay, intake structure, and power distribution lines will remain under the City's jurisdiction. The Powerhouse structure will be evaluated to determine the most appropriate use of the building. There has been discussion of a possible Hydroelectric Museum or maintenance building for the City's use. The turbine and generator assembly will be removed to properly secure the building. The distribution lines have already been disconnected and removed since the system has become inoperable.

b) Approximate natural sources of water supply the related conduit.

The Project' water supply comes from Center Creek.

c) Number of generating units, including auxiliary units, the capacity of each unit, and provisions, if any, for the future units.

The Project consist of a single generation unit with the capacity of an estimated average annual generation of 2,300,000 KWh or a generation capacity of 600 KW

d) Type of each hydraulic turbine

Pelton Wheel

e) Description of how the plant is to be operated, manually or automatically, and whether the plant is to be used for peaking.

The turbine/generator is operated automatically. The generator is a synchronous type with direct current for excitation provided by a small auxiliary source. The plant is generally operated as a run-of-the river base load plant; however, the small de-silting pond at the diversion structure allows a minor peaking capability, which is utilized occasionally.

- The project consisted of installing 600 kW of generating capacity
- The projected uses one small diversion structure to divert stream-flow into the penstock.
- Lands of the United States affected:

	Name Acre	<u>s</u>
(i) National Forest	none	0
(ii) Indian Reservation	none	0
(iii) Public Lands Under Jurisdiction of		
(iv) Other	BLM 21.43	<u> </u>
(v) Total U.S. Lands		21.43
(vi) Check appropriate box:		
\underline{X} Surveyed land (2001)		

EXHIBIT A PROJECT DESCRIPTION AND OPERATION

EXHIBIT A

DESCRIPTION OF PROJECT AND MODE OF OPERATION

Parowan City's Center Creek Hydropower Project was initially constructed in 1925, and was originally licensed on July 10, 1935 with a license term of 40 years, said term beginning January 1, 1935 and terminating on December 31, 1974. The Project was operated under successive annual licenses from the noted expiration date until a license was issued on September 15, 1977. The license was effective from September 1, 1977 until December 31, 2004, the date of termination being 30 years after the expiration date of the original license. The Project was issued a subsequent license dated November 12, 2003, which currently governs the operation of the Project.

The mode of operation for the Center Creek Hydro is described and a run-of-the-river, base-load plant, with a minor peaking capability component. Water to power the single turbine is diverted by the single small diversion structure located in Parowan Canyon, and up to a maximum of 24 cfs is diverted into the penstock and thereby delivered to the Pelton Wheel in the concrete block powerhouse. The Owner has a water right for the non-consumptive use of a maximum of 24.0 cfs of flow from the Creek, and the tailrace flow is delivered back to the Creek for the use of downstream irrigation right-holders.

The Center Creek Power Project is comprised of the following components:

a. The Center Creek Hydro Diversion Structure, consisting of a 15-foot high concrete overflow type diversion dam, approximately 54 feet long, equipped with a radial gate for by-pass flushing, also incorporating a concrete intake structure with trash racks on the east side of the diversion dam, the intake structure supplying a small de-silting pond with holding capacity of 19.9 acre-feet, which in turn feed the hydro penstock by means of a concrete inlet structure with trash screens, the penstock consisting of: 18,825 feet of steel pipe (6,600 feet 26 inch diameter pipe; 1,700 feet of 24 inch diameter pipe; 7535 feet of 22 inch diameter pipe; 710 feet of 20k inch diameter pipe; and 2,280 feet of 18 diameter pipe). The Project includes an electrical distribution line that provides power service to controls and sensors at the Diversion Structure, as well as powering the Fore-bay Well, which is located near the de-silting pond; The Fore-bay well provides additional water, when needed, for the turbine, but since it is also used for irrigation, this well is not Project specific and is therefore not a component of the Project. The controls and sensors cabling are carried on the same poles as the power distribution line.

Although the power distribution line that runs along the Project ROW in the Canyon is not project specific.

b. A powerhouse containing a single generator rated at 600 kW, the carrier grid carrying the 2.4 kV generator output to a substation, which has been removed since the generator went off-, which in turn ties into the distribution grids serving Parowan City. The powerhouse also provides switching, control, and service equipment.

- c. The lands of the United States which are affected are within the SE¼SE¼ Sec 24 and the NE¼NE¼ Sec 25, T34S, R9W; All SLB&M. Project facilities located in whole or in part on lands of the United States:
 - Penstock, impacting 21.43 acres
- d. In addition to the BLM administered lands of 21.43 acres, the following additional lands are within the Project Boundaries:
 - i. Parowan City, consisting of 9.78 acres
 - ii. Private land, Consisting of 0.84 acres

The location, layout and physical structures associated with the Center Creek Power Plant are shown in Exhibit 1.

Table A-1 presents a descriptive data summary of the existing structures associated with the Center Creek Hydro Project. Further information, including hydrological information, flow duration curves, and power output summaries are to be found in Appendix A-1

Table A-1 Description Data Summary

1

i) Description of Existing Project Works

Center Creek Power Plant

Number of generating units

Auxiliary Units None
Capacity of Each Unit 600 kW

Provision for Future Units None

ii) Type of Hydraulic Turbine: Pelton Wheel

iii) A description of how the plant is to be operated, manual or automatic, and whether the plant is to be used for peaking.

Center Creek Power Plant

The turbine and generator is operated automatically. The generator is a synchronous type with direct current for excitation provided by a small auxiliary source. The plant is generally operated as a run-of-river base load plant; however, the small de-silting pond at the diversion structure allows a small peaking capability, which is utilized occasionally.

iv) The estimated average annual generation in kilowatt-hours or mechanical energy equivalent:

Center Creek Power Plant: 2,300,000 kWh

v) The estimated average head on the plant:

Center Creek Power Plant

Static Head 595 feet

Operating Head (Net Head)

 10 cfs
 562 feet

 15.6 cfs
 514 feet

 20 cfs
 462 feet

- vi) There is a small de-silting pond of 19.9 acre-foot capacity, and no reservoir associated with this project.
- vii) The estimated hydraulic capacity of the plant (flow through the plant in cubic feet per second) and estimated average flow of the stream of water body at the plant; (Flow duration curves and a description of the drainage area for the project are provided in Appendix A-1.)

Center Creek Power Plant

Hydraulic Capacity 24.0 cfs Average Flow 12.0 cfs

viii) Sizes, capacities, and construction materials, as appropriate, of pipelines, ditches, flumes, canals, intake facilities, powerhouses, dams, distribution lines, and other appurtenances;

Diversion structure:

Height 15 feet
Length 54 feet
Material and Design Concrete

Intake Facilities:

Submerged intake with screen, located at the bottom far (north) end of the settling pond.

Penstock:

Length 19,300 feet

Diameter 18 inch through 26 inch

Capacity 24.0 cfs Material Steel

Powerhouse:

Building Concrete Brick Building (27.5' x 52.5')

Tailrace:

Concrete rectangular channel 4.5' square with concrete baffles, discharging to an irrigation canal.

<u>Distribution lines:</u>

The Distribution line ends 80 feet north of powerhouse. The Sub-station inter-tie of the 2.4kV Generator Grid has been removed since the powerhouse went off-line.

ix) The estimated cost of the project:

The cost information is not available; the last re-build or upgrade of the Project was in 1950, and the cost for the work has not been researched in the Applicant's records.

State the purpose of the Project:

This application is for the surrendering of the license for the Center Creek Hydroelectric Project (FERC No. 1273). The Project requires upgrades and improvements that are not economical at this time to continue use of the system.

EXHIBIT 1

PROJECT MAP

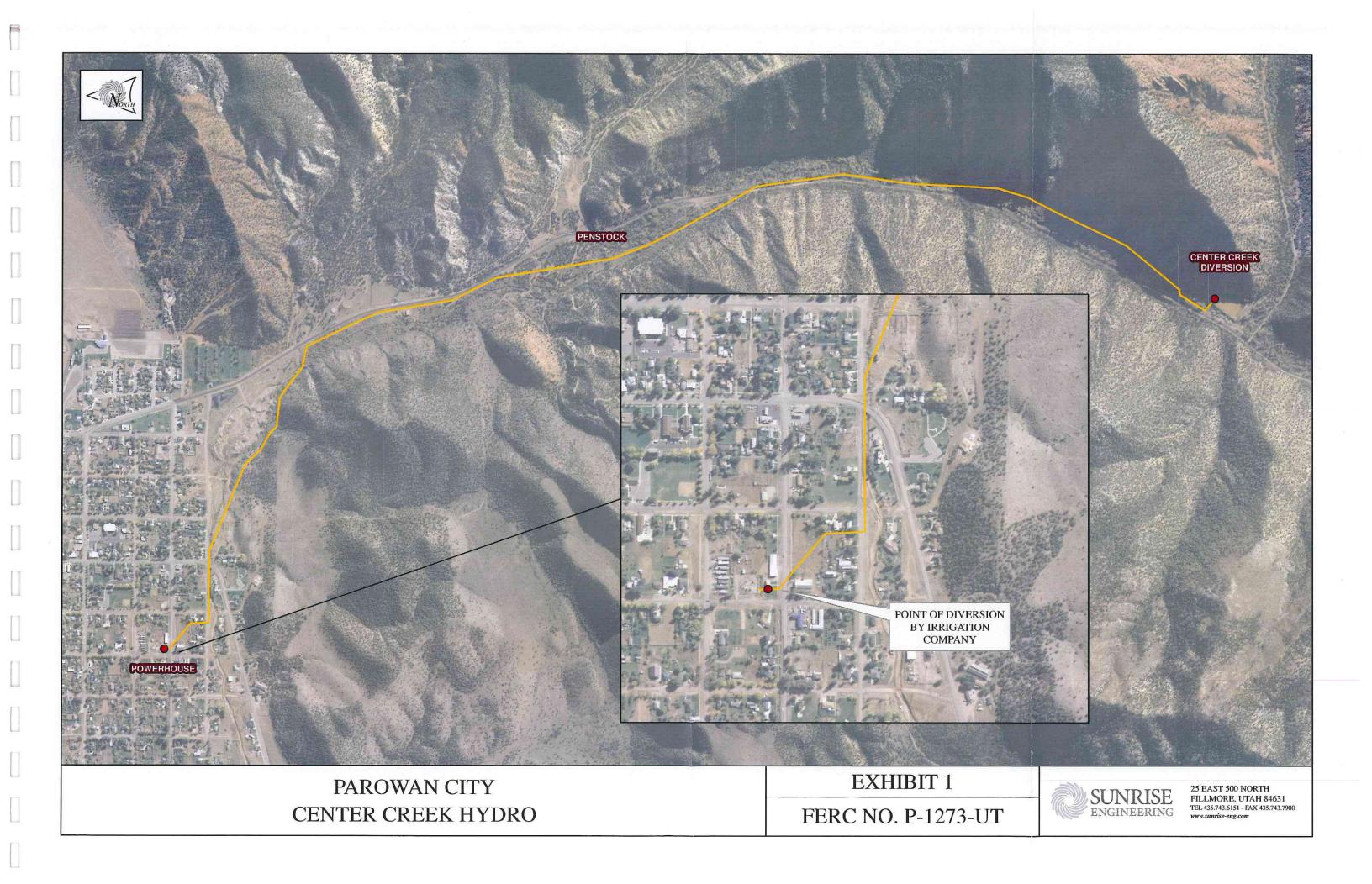


EXHIBIT E

ENVIRONMENTAL REPORT

EXHIBIT E

ENVIRONMENTAL REPORT AND AGENCY COORDINATION

Environmental Report and Agency Coordination, including prior Agency consultation and evidence of First and Second Stages of Consultation for Application for a New License.

The environmental report is prepared in conformance with stipulations outlined under Section 4.61(d)(2).

(i) DESCRIPTION OF ENVIRONMENTAL SETTING

Introduction

The Center Creek Project is located in and near the Southern Utah community of Parowan City (elevation 6000 ft). The powerhouse itself is located on a City Block near the south edge of town, the penstock originating at the powerhouse, and meandering over to the base of the foothills of the Hurricane Cliffs which start their rise just south of the City. The Penstock then winds its way up Parowan Canyon, alternatively paralleling the Canyon Road and finding a separate route, sometimes hugging the base of the hill and then following the Creek, eventually terminating at the diversion structure and de-silting pond located at the confluence of Parowan (also called Center) Creek and Bowery Creek (a tributary to Parowan Creek). The lands impacted by the Project are a combination of BLM administered lands, private lands, and Parowan City Municipal lands. The watershed consists of private and BLM lands in the near reaches, becoming Dixie National Forest lands (with some scattered private inholdings) in the upper reaches of the tributary area.

There are numerous springs in the general area, being fed by snowmelt from winter accumulations on the cooler upper Forest ranges. The diversion structure is just ½ mile from the nearest corner of the Dixie National Forest.

It has been observed that Parowan Creek carries a lot of gravel, necessitating installation of a Radial Arm Gate at the diversion, to allow occasional flush-thru of the gravel accumulation. This is just one evidence of the makeup of the canyon bottom fill. The vegetation, green and spreading on both sides of the Creek, both above and below the diversion, signals the presence of a sub-surface stream flowing through the alluvium. The presence of this hidden stream is further attested by the resurgence of the creek-flow below the diversion point during low-flow regimes when the entire creek-flow is diverted into the penstock. Add to this the flow from small springs and several smaller tributary canyons below the diversion, and the result is there is very little, if any, damage to the riparian community along the so-called "bypass reach", because the net effect is that the Creek has not actually been dried up in this reach.

Vegetative Cover

Natural vegetation is sparse out in the valley, and economic activity depends on the availability of water. Agriculture was the primary means of support for the original settlers, and from the first settlement through the present, irrigation made possible by the diversion of what little water comes down the small mountain creeks enables what farming activity takes place. As you leave the valley floor and head into Parowan Canyon, at about the location of the City Cemetery, vegetation begins to increase rapidly as increased elevation provides a cooler regime, while numerous washes and small canyons contribute rivulets and streams, some very ephemeral and others constant. The moisture captured from the clouds by the mountains, and the canyon coolness, promote greenery that stands in stark contrast to the desert-like valley just a short distance away at the canyon mouth and beyond, while the irrigated fields present a scattered patchwork of green that presents another contrast on the valley floor, and shows what the valley could look like if more water was available.

Within the general National Forest area east and south of the Project, mountain peaks range to 11,300 ft in height (Brian Head). These lofty peaks play an important role in collecting winter snows, that provide run-off that supports the summer needs of vegetation, both wild and cultivated, as well as sustaining the various natural animal species and the personal and economic pursuits of the area residents.

Fish and Wildlife Resources

Parowan Creek and tributaries have historically been of minor importance for fish habitat, since flows are low in the late summer and fall, and freezing of the shallow Creek during the winter also keeps winter water flows to a minimum. The Department of Wildlife Resources stocks the fore bay pond with fish. The nearby Forest shelters numerous species of wildlife, including big game common to Central and Southern Utah. There is an elk population, as well as the pervasive mule deer.

The Parowan Reservoir Company has constructed an irrigation storage reservoir at Yankee Meadows on Bowery Creek, which runs up what is called First Left Hand Canyon. This reservoir, called Yankee Meadows Reservoir, is of great importance to irrigation in the Parowan Valley, and also contributes to the viability of the Center Creek Hydro Project, because of the capability it gives the Irrigation Company to store some of the spring runoff and bring it out later in the season. The Applicant does not control any releases from the Yankee Meadows Reservoir; this is solely at the discretion of the Reservoir Company, as governed by its water rights as determined by the Utah State Engineer.

The Yankee Meadows Reservoir is located on private inholdings which are completely surrounded by Forest Service administered lands. The Reservoir is re-stocked annually by the State Division of Wildlife Resources, and is a popular fishing retreat, well liked and well used by local and visiting anglers. The area is high and cool, providing welcome relief from the harsh summer heat in the valley, as well as a beautiful forested setting for several forest service campgrounds that have been developed on forest roads branching here and there from the Reservoir access road.

Water Quality and Quantity

The quality of water issuing from the Parowan Canyon, its springs and tributaries, is excellent, for agricultural use, and where collected at the spring source, for culinary purposes. Wells constitute a secondary water source in the Parowan Valley. The quantity of water available from this stream and

others in the vicinity is very limited. There is a large, dry valley rolling away from the base of the Hurricane Cliffs, and only enough water to irrigate a very small fraction of the total arable land.

The towns are comparatively small, limited in past growth opportunities by inadequate water supplies, and restricted economic activity. As is the case in much of the arid west, and almost every corner of Utah, there is no un-appropriated water in this watershed, and the only way to start or expand any water dependent activity is to acquire an existing water right. Only by close cooperation and mutual respect between the City and the Reservoir Company can the power generation right be balanced with the irrigation rights.

Land and Water Uses

Land and water in this general area is used for irrigated agriculture, residential homes, and livestock grazing, and of course power generation with the Center Creek Project. Water Rights filings for the Parowan Reservoir Company appear to encompass approximately 4,000 acres for irrigation, and there are a few individually owned underground rights (wells) located in the valley that facilitate irrigation of some additional lands.

In addition to the running of livestock on private lands, Forest Service Lands, and to a lesser extent BLM Lands, have long been, and continue to be, multiple use resources that include grazing allotments.

Recreational Uses

Land and water in this general area is used for such recreational purposes as snowmobiling, hiking, biking, and four-wheeling; equestrian activities are also popular. A few miles from Parowan, the Brian Head Ski Resort is a popular destination for winter sports, as well as summer activities such as biking and hiking in the cool mountain highlands.

Fishing and camping has been mentioned above in the section on Fish and Wildlife resources; a more detailed description of some recreational opportunities on the nearby Forest will be offered in this section.

As one travels SR 143 out of Parowan, toward Brian Head, an improved road turns off immediately above the Center Creek Project Division Structure (where Bowery Creek and Parowan Creek join), and allows access to what is called "First Left Hand Canyon", which enters the Forest about ¼ mile above the turn-off. An improved Forest Campground called Vermillion Castle Campground is located near the Forest access road, approximately 1 mile into the Forest, at approximately 7000 feet elevation. An improved campground indicates that drinking water and toilet facilities, as well as designated picnic, and in the case of Vermillion, there is provision for camp trailers. This Campground consists of 16 camping areas, in a timbered setting and located on a stream (Bowery Creek). Unfortunately, Vermillion Campground is currently closed, due to damage suffered from a flash flood on Bowery Creek during the summer of 2001. The Forest Service, resigned to the fact that if Vermillion Campground were rebuilt, it would be damaged again by the next flood, planned and began construction during the summer of 2002 on a new campground further up the First Left-hand Fork Canyon, nearly to Yankee Meadows. The new campground, as yet unnamed, should be ready for use sometime in 2003.

The Forest road is paved part way to the Yankee Meadows, and then reverts to a gravel road, though well maintained. There are several more turn-offs from the main route between the Vermillion Cliffs campsite and the Yankee, which access other camping areas, although these others are not improved, i.e., have neither drinking water nor lavatory facilities.

On arriving at the private lands at Yankee Meadows, camping is allowed at additional unimproved camping areas outside of a protective perimeter fence; there are also restroom facilities near one end of the Reservoir. Fishing is the recreational attraction, which is accomplished from the shore, with waders, and from small fishing boats. Water skiing and similar recreational boating is not allowed, due to the relatively small extent of the Reservoir.

The nearby Brian Head Resort area is a major center of recreation, both winter and summer. Downhill and cross-country skiing, snowboarding, and snowmobiling are big in winter, and hiking, mountain biking, and picnicking are favorite summer activities. This resort draws a much of its clientele out of Las Vegas and Southern California.

Historical and Archaeological Resources

Parowan was founded in 1851, and has much historical significance, including a strong pioneer heritage. The Center Creek Hydropower Project was first built in 1925, although the current powerhouse dates from a reconstruction in 1950. It is possible that the powerhouse may become eligible for listing on the National Register of Historic Places.

The following historical information and descriptions are taken from a Parowan City tourism brochure, entitled "Parowan, Southern Utah's First Settlement":

"Parowan, Southern Utah's first settlement and county seat of Iron County, blends together a rich historical past with present-day, small-town hospitality and a beautiful natural location which no other community can duplicate.

Parowan and the surrounding valley were first inhabited by the Fremont and Anasazi Indians approximately 750 to 1250 A.D., as evidenced by the petroglyph writings, pit houses, arrowheads, pottery, and manos still found in the area. Indian petroglyphs located at the Parowan Gap, are evidence that the area near the Little Salt Lake was once a major thoroughfare for Indian tribes.

The name Parowan is an Indian word meaning "evil waters." A Painte Indian legend, told to William R. Palmer, refers to how Parowan got its name: One day as the Indians were camped along the shores of the Little Salt Lake, a wind- storm crossed the lake causing a large monster to rise from the lake. The waters from the lake rushed far out onto the shore allowing the monster to grab one of the Indian maidens and carry her back into the lake where she was never seen again.

On January 13, 1851, just four years after the Mormon pioneers entered the Salt Lake Valley, the first Southern Utah settlement was established in Parowan. Later on, Mormon President Brigham Young sent pioneers from Parowan to settle other communities including Cedar

City, Beaver, Panguitch, Washington, Santa Clara and Las Vegas, Nevada, as well as towns in San Juan County and parts of Arizona, Nevada, Colorado, Wyoming and Oregon.

Parowan has an abundance of historic sites which reflect her rich pioneer heritage including an early prairie-styled Church building designed by one of Frank Lloyd Wright's students, adobe and log homes built by the first pioneers, and a rock-walled cemetery which contains a collection of stone art crafted by early masons. The center of town alone has 18 historic points of interest.

Parowan is surrounded by some of the Southern Utah's most spectacular scenery and is the year-round gateway to Brian Head Ski Resort and Cedar Breaks National Monument. Parowan is also just a short drive from Bryce Canyon and Zion National Parks.

Parowan has variety that few other locations can offer: an equestrian center including a racetrack and arena, fishing, hunting, camping, rock-hounding, skiing, sightseeing, boating, hiking, horseback riding, swimming, and Indian petroglyphs."

Endangered or Threatened Plant and Animal Species

The U.S. Fish and Wildlife Service (FWS) has provided (see their letter dated May 17, 2001 in Appendix E-1) the following information:

"To help you fulfill your responsibilities under Section 7 of the Endangered Species Act, we are providing and updated list of threatened (T) and endangered (E) species that may occur within the area of influence of your proposed action.

Common Name	Scientific Name	Status
Bald Eagle ¹	Haliaeetusleucocephalus	Т
California Condor ²	Spiranthesdiluvialis	Т
Mexican Spotted Owl 3/4	Gymnogypscalifornianus	E
Utah Prairie Dog	Cynomysparvidens	Т

¹ Wintering Populations (only four known nesting pairs in Utah)

² Experimental nonessential population

³ Critical habitat designated in this County

⁴ Nests in this County of Utah"

(ii) ENVIRONMENTAL IMPACTS

Vegetative Cover

The Center Creek Hydro Project was first constructed in 1925, the original capacity being 350 kilowatts. The Project underwent a major reconstruction in 1950, which involved:

- 1) the modification of the inlet structure to facilitate the removal of gravel, rocks, and boulders, as well as limbs, leaves and other debris from the stream flow to prevent entry into the penstock;
- 2) The original powerhouse was abandoned, and a new one constructed at the lowest practical point on the stream, i.e. where irrigation water was diverted several directions to irrigation right-holders. (Even at that, provision was made to bleed some irrigation water from the penstock during the summer, to fulfill certain irrigation rights.);
- The penstock was extended from the original powerhouse location to the new powerhouse, which
 is located on a City Block; and
- The capacity was upgraded to the current 600 kilowatts.

A second, minor, modification was made in 1987 when the diversion structure was rebuilt, and a desilting basin added at the head works, to accommodate the addition of a pressure irrigation system to serve the City lots.

Since the major upgrade to the pipeline in 1950, little disturbance has occurred along the penstock Right-of-Way, so cover has had ample opportunity to regenerate. There is occasional maintenance disturbance, however, which is understandable inasmuch as some of the pipe still in place dates from 1935. From time to time, replacement of badly deteriorated segments of pipeline becomes necessary.

As mentioned above, a bypass line at the head works, is currently being considered, to facilitate removal of silt build-up in the de-silting basin; the needed work would take place on lands owned by Parowan City. Other than this very minor alteration, no other construction is being considered at this time or in connection with the current application to re-license the project.

Planned and periodic normal maintenance occurs at the powerhouse and diversion structures, and along the penstock. When penstock repairs are required, care is taken to minimize disturbance of existing vegetation. Since the latest construction was finished nearly 52 years ago, most if not all, of the disturbance along the pipeline alignment has long since healed.

Fish and Wildlife Resources

The DWR has indicated that there is a native, self-sustaining fish population in the main branch of Parowan Creek, above the Center Creek Diversion Structure; further, the DWR has done some habitat improvement in this reach, consisting primarily of placement of native boulders in such manner as to increase stilling pools along the water course, to provide enhanced fish habitat. The DWR also reports that the reach below the Diversion has not received enhancement, due to insufficient prospects for improvement.

It should be stated that the Yankee Meadows Reservoir has been mentioned as a popular recreational activity, the Reservoir is owned and controlled by an irrigation company, is not part of the Center Creek Hydro Project, and is therefore not under the control or management of the Applicant, Parowan City.

Water Quality and Quantity

The historical change that has affected the Parowan Canyon to the greatest extent is the construction of the Yankee Meadows Reservoir, which, as mentioned, was done by a local irrigation company and is not part of the Project. This storage facility impounds approximately 1,100 acre-feet of water when full, and spreads the run-off duration of the Bowery Creek tributary area of Parowan Creek over the hot summer months, which multiplies the value of the water for irrigation. As a side benefit, it also helps to provide a more constant flow to the generator than would otherwise be available.

The Yankee Meadows Reservoir serves to improve water quality, by eliminating or reducing the spring flood surge. It also allows a higher stream flow in the hottest and driest season, which enhances the riparian and esthetic characteristics of the Bowery Creek reach. Recreational benefits of the reservoir are discussed in another section.

Land and Water Uses

The Project does not interfere with the enjoyment and utilization of land and water in the area. Some enhancement of water quantity for irrigation purposes is provided as water loss from seepage in part of the natural channel is reduced for that portion of stream-flow that is carried by the penstock to the generator. An interesting aside; the irrigators can't have their cake and eat it to. The flow that is saved from loss in the penstock would otherwise disappear into the canyon bottom alluvium, and would make its way, with the other flows still meandering along out of site, and eventually be available for withdrawal from wells out in the valley. However, the cost of pumping is saved by keeping the water in the surface stream, and the individual irrigators benefiting from the use of the water varies with the source of delivery.

Since the Applicant holds rights for hydropower generation only, the stream-flow must be returned to the next right-holder on the channel, which then uses the water for irrigation, the appropriated use of the right during the irrigation season. During the non-irrigation season, the stream-flow is also returned to the natural channel. Additional detail on the interplay of water rights on the Creek can be found in Section E(iii)(C)(1)(a).

Grazing is permitted on the Forest Service portions of the Parowan Creek Drainage. A brief Grazing Study has been prepared to examine the history and effects of grazing on the watershed. The "Center Creek Hydro, Riparian Areas Grazing Study" is attached to this Application as Appendix E-8. It appears that severe over-grazing on the drainage occurred prior to about 1920, contributing to erosion problems, and necessitating drastic reductions in the numbers of animal units allowed on the Forest. The heaviest overgrazing occurred prior to the construction of the Center Creek Hydro; however, it cannot be determined from the information furnished by the Forest or the BLM whether overgrazing occurred on those riparian areas that lie within the Project Boundaries; grazing is not permitted within those boundaries at the present time.

Recreational Uses

The Project does not interfere with the enjoyment and utilization of land and water resources in the area for recreational purposes. At the same time, there are no specifically recreational features associated with the Project, nor are any being proposed at this time.

The following information and descriptions on recreational opportunities are taken from the Parowan City tourism brochure entitled "Parowan, Southern Utah's First Settlement":

"PANGUITCH LAKE, 30 miles southeast of PAROWAN, is also an excellent fishing lake and is popular for ice-fishing in the winter. The resort includes lodges, cabins, campgrounds and boat ramps.

MINERSVILLE RESERVOIR, 12 miles west of Beaver, UPPER and LOWER ENTERPRISE RESERVOIRS and NEWCASTLE RESERVOIR, 60 miles west of Parowan, are also popular reservoirs for trout fishing year-round.

There are several good fishing streams in many of the canyons. They include PAROWAN CREEK in Parowan Canyon, RED CREEK in Paragonah Canyon, PANGUITCH CREEK below Panguitch Lake, MAMMOTH CREEK south of Hatch and BEAVER RIVER near Beaver.

Hiking, backpacking and horseback trail rides are an excellent way to see the beautiful scenic back country in the Parowan area. "

Historical and Archaeological Resources

In 1984, CRMS (Asa S. Nielson, Principal Investigator) conducted a cultural resource survey of most of the same area as is involved with the Center Creek Project, for Utah Power and Light. His report entitled "An Archaeological Survey of the Parowan to Cedar Breaks Power Distribution line, Iron County, Utah", has been filed with the Division of State History.

Mr. Nielson records and maps 3 pre-historic sites, two significant, about 1 mile up Parowan Canyon, neither of which appeared to have been impacted by the earlier construction of the hydro penstock. An historic site was also noted, which appears from its location and description to be the remains of the original Center Creek Powerhouse that dates from 1925. For additional information, see the report (BYU, Museum of Peoples and Cultures, Technical Series No. 84-69).

The following historical information and descriptions are taken from the Parowan City tourism brochure entitled "Parowan, Southern Utah's First Settlement":

"Besides being southern Utah's first settlement, Parowan has also gained a reputation as "The Mother Town of the Southwest" because of the pioneers who left there to help settle a number of communities in southern Utah, Nevada, Arizona, Oregon, Colorado and Wyoming.

After the first group of pioneers arrived in Parowan, Company Leader George A. Smith called Joel H. Johnson to build a large stockade facility to help take care of the cattle from Parowan and soon-to-be-settled Cedar City. The stockade was built during the summer of 1851 and was known as Johnson's Fort, now Enoch.

Also during the summer of 1851, several farmers started planting crops in the Paragonah Valley. In 1852, several families moved to Paragonah, living in dugouts or crude huts, until trouble with the Indians arose, forcing the settlers to move back into the safety of the fort in Parowan. Then in 1855, while visiting Parowan, Mormon President Brigham Young instructed the settlers to return to Paragonah and build a protective fort.

On Nov. 11, 1851, 35 men under the leadership of Henry Lunt established the Coal Creek settlement now know as Cedar City, for the purpose of manufacturing the coal and iron ore deposits in the area.

In 1852, John D. Lee, leader of a small group of men, explored the Rio Virgin area. After their return, John D. Lee and Elisha H. Groves returned to Ash Creek to build Fort Harmony.

Later, Orson Pratt resurveyed the townsite and moved it to a location where the water from the two main streams could better serve the needs of a larger community.

In 1861, after eight days of heavy rainfall, the adobe fort walls eroded away at which time the community decided to build two communities, each closer to one of the two main water sources. New Harmony was established west of the Fort, followed by Kanarraville (named after Indian Chief Kanarrah) southeast of the Fort.

In 1853, the settlement of Summit was laid out; originally as a herding ground to serve as shelter in case of an Indian attack.

In 1854, missionaries from Fort Harmony, along with Jacob Hamblin and other pioneers from the Parowan area, settled Santa Clara and then in 1856 settled Pinto and later New Castle in 1910.

In 1855, Brigham Young called three men from Parowan to serve as guides and Indian translators for the group of pioneers who settled the Muddy Mission now known as Las Vegas, NV.

Early in 1856, about 15 families left Parowan and traveled north to settle the Beaver area along the river.

The Panguitch area was originally explored in 1851. Although it was reported as a good place for the lumber business, it was deemed unsuitable for agriculture because of the cold climate. Finally in 1864, families from Parowan and Beaver settled Panguitch.

After settling Panguitch, a group from Parowan went east to settle an area called the Potato Valley, which is now known as Escalante.

In 1878, Jesse N. Smith was called to lead a group of pioneers southeast into Arizona to establish the Snowslake settlement.

In the spring of 1878, an exploring party was sent south through the Kanab area, across Lees Ferry and east to explore the San Juan County area. On the group's return, 80 families from Parowan, Cedar City, and neighboring communities left to settle that area.

On the advice of Escalante Bishop Andrew Schow and James Collett, the group took what was thought to be a shorter route traveling directly east of Escalante. In December, the group came to a mountain range of slick red rocks known as "68 Mile Range." It took them six weeks to blast, chisel and build a road down to the valley floor, now known as "Hole in the Rock."

In 1882, the Mormon Church presidency called for volunteers to help settle the San Louise Valley in Colorado. Several Parowan and Paragonah families answered the call and helped settle the communities of Sanford and Manassa.

John L. Lowder and Erza Thornton were called as missionaries to help the colony at St. Johns, Ariz., which was having problems with the Mexicans.

In 1887, Buckhorn Springs was first settled by John Eyre of Parowan. Later, families from Parowan and Beaver moved there. One of the most notable residents of this short-lived community was Philo Farnsworth, the inventor of the television.

In the summer of 1900, the Mormon Church had purchased a franchise from the state of Wyoming to build a canal and settle the Big Horn Basin. One hundred people from Parowan answered the call and helped settle the community of Cowley, WY.

Also in 1900, several families from Parowan and Paragonah went northwest to help settle the communities of LaGrande and Union, Ore."

It is seen, then, that Parowan has a rich tradition of hardy Pioneering stock.

Scenic and Aesthetic Resources

There is a hard-surfaced road along the main Project penstock, which allows easy access to the area. This road is designated State Route 143, and is kept open year round to provide access to the popular Brian Head Ski Resort area, which is about 12 miles South of Parowan. The Canyon itself is a beautiful drive in any season. The Applicant suggests that the Project does not interfere with enjoyment of the natural beauty of the area.

Parowan is beginning to be discovered as a retirement destination, as well as an access point to winter and summer recreation at Brian Head. The City reports that fully 1/3 of monthly municipal utility bills are currently sent to out-of-town addresses. Some of these absentee home and property owners are native to the area, and while having left the area for employment, still maintain the original family

homestead, either for weekend getaways or for anticipated retirement; others maintain a second home for recreational getaways, or possibly for an anticipated future retirement.

The following scenic information and descriptions are taken from the Parowan City tourism brochure entitled 'Parowan, Southern Utah's First Settlement':

"PAROWAN CANYON, located southeast of Parowan on HWY 143, is the scenic "year-round" gateway to Brian Head, Cedar Breaks, Panguitch Lake, Bryce Canyon and Cedar Canyon.

Designated SCENIC BYWAY 143 begins in Parowan and travels east through Brian Head and Cedar Breaks National Monument to Bryce Canyon National Park. SCENIC BACKWAY, Dry Lakes/Summit Canyon begins 8 miles south of Parowan on U-143 and heads west 19 miles and ends just north of Summit. Both routes offer panoramic views of majestic mountain and rock formations, meadows, forests and agriculture fields.

Five miles up Parowan Canyon is VERMILLION CASTLE picnic and campground area. The area was named for its bright red castle-like cliff formations. Local residents refer to it as "Five Mile".

From Vermillion Castle the road leads to the popular YANKEE MEADOW RESERVOIR, well-known for its excellent trout fishing and hunting. In the winter time it is an ideal spot for snowmobilers to have fun and enjoy the winter mountain scenery.

An alternate route to Yankee Meadows is through scenic SECOND LEFT-HAND CANYON, just two-tenths of a mile up from the Vermillion Castle turn-off for those with four-wheel drive vehicles.

PARAGONAH CANYON, east of Paragonah, features unusual rock and cliff formations as one follows the winding forest road which leads to RED CREEK (PARAGONAH) RESERVOIR. The reservoir is well-known for trout fishing year round. And the canyon areas surrounding the reservoir are popular hunting areas.

North east of Paragonah is LITTLE CREEK CANYON. The road through Little Creek Canyon and the Bear Valleys was the first road built that enabled the pioneers to pass through and settle Panguitch.

TWISTED FOREST & ASHDOWN GORGE is an ancient stand of Bristlecone pines located along the north rim of Cedar Breaks and is accessible via graded dirt roads from Brian Head. The Ashdown Gorge Wilderness Area, accessible from the Rattlesnake Creek trailhead just north of Cedar Breaks on U-143, is a rugged, infrequently visited area. The long and strenuous trail is suitable only for experienced hikers.

Southeast of Cedar Breaks is one of Utah's most picturesque mountain lakes, NAVAJO LAKE. Trout fishing is very popular at the lake which also includes camping and lodging facilities. Also located at Navajo Lake is CASCADE FALLS a natural-made tunnel opening

on the KOLOB mountain-face side from which water from Navajo Lake tumbles down to the canyon floor below."

Endangered or Threatened Plant and Animal Species

"... We are providing the following list of threatened (T), and endangered (E), and candidate (C) species that may occur within the area of influence of your proposed action.

Common Name	Scientific Name	Status
Bald Eagle	Haliaeetusleucocephalus	T
California Condor	Gymnogypscalifornianus	Е
Mexican Spotted Owl	Strixoccidentalislucida	T
Western Yellow-billed Cuckoo	Coccyzusamericanusoccidentalis	С
Utah Prairie Dog	Cynomysparvidens	T

Candidate species have no legal protection under the Endangered Species Act (ESA). Candidate species are those species for which we have on file sufficient information to support issuance of a proposed rule to list under the ESA. Identification of candidate species can assist environmental planning efforts by providing advance notice of potential listings, allowing resource managers to alleviate threats and, there, possibly remove the need to list species as endangered or threatened. We recommend that you consider opportunities for and potential impacts to the Western yellow-billed cuckoo in your EA."

The riparian habitat study reported that none of these were sited in the Project area. Further, the investigators concluded (in Section V.2.10) "...Local wildlife populations would relocate to surrounding areas should the project require any work...."

APPENDIX 1

Articles of Incorporation and Utah Code

in RE: Municipal Power Systems

ACTS.

RESOLUTIONS, AND MEMORIALS.

PASSED BY THE

FIRST ANNUAL, AND SPECIAL SESSIONS, OF THE LEGISLATIVE ASSEMBLE.

O S All

. TERRITORY OF UTAH,

BEGUN AND HELD AT GREAT SALT LAKE CITY, ON THE 22ND DAY, OF SEPTEMBER, A. D., 1851.

CONSTITUTION OF THE UNITED STATES.

ANDSTILL

ACT ORGANIZING THE TERRITORY OF LEAST.

Poblicad by Anthony of the Legislatin Layers

G. S. L. CITY, U. T. 1 852. Heigham IV. Young, Printer

overnor, who shall sep overnor, who shall sep seembly for their encou-commencations as he m Approved Jac 16: 185

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San: 3-, That the smyd of the above named charters be mug to inserted in the stead Approved Marks 5- (1982)

AN ACT TO INCORPORATE CEDAL CUTY D HRON COUNTY FUAL TERRITORY

RDSOMMONS AND MANORES

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the manufacture, sale, or giving away, or otherwise decollolic, vinous or fermented liquors, ale, beer or perferthat the license shall not exceed fifty dollars per mention to the sale, giving away, or otherwise disposing of any alcohology or fermented liquors, ale, beer or porter, to any minor or all without the consent of his, her or their parents, guardians, all Indian.

To prevent or prohibit the sale, giving away, or otherwise. ing of any alcoholic, vinous or fermented liquors, ale, beer, or on Sunday.

CHAPTER X.

OF INCORPORATED CITIES IN IRON COUNTY.

I. Parowan.

II. Cedar.

I. PAROWAN.

An Act incorporating Parowan city, in Iron county.

[Approved February 13, 1868.]

SDG. 1. Be it enacted by the Governor and Legislative Assembly of the Territory of Utah: That all that district of country embraced in the following boundaries in Iron country, to wit: Berlinning at a point three hundred and twenty rods due south of the stone meeting house in Parowan, thence cast two miles, thence north say miles, thence west six miles, thence south six miles, thence east four miles to the place of beginning, shall be known and designated under the name and style of Parowan city, and the inhabitants thereof are hereby constituted a body corporate and politic by the name aforesaid, and may have and use a common seal, which they may change and alter at pleasure.

Sec. 2. The inhabitants of said city, by the name and style after. said, shall have power to sue and be sued, to plead and be impleaded defend and be defended in all courts of law and equity, and in all actions whatsoever; to purchase, receive and hold property, real and personal, in said city; to purchase, receive and hold real property beyoud the city for burying grounds or for other public purposes for the use of the inhabitants of said said city; to sell, lease, convey or the pose of property real and personal for the benefit of said city: improve and protect such property, and to do all other things in reli-

tion thereto as natural persons.

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SEC. 3. There shall be a city council, to consist of a mayor and five councilors, who shall have the qualifications of electors of said city, and shall be chosen by the qualified voters thereof, and shall hold their offices for two years and until their successors shall be elected and qualified. The city council shall judge of the qualifications, elections and returns of their own members, and a majority of them shall form a quorum to do business; but a smaller number may adjourn from day to day, and compel the attendance of absent members under such penalties as may be prescribed by ordinance; there shall also be elected in like manner two justices of the peace, who shall have the qualifications of voters, be commissioned by the governor and have jurisdiction in all cases arising under the ordinances of the city.

SEC. 4. The mayor and councilors, before entering upon the duties of their offices, shall take and subscribe an oath or affirmation that they will support the Constitution of the United States and the laws of this Territory, and that they will well and truly perform all the du-

ties of their offices to the best of their skill and abilities.

SEC. 5. One mayor and five councilors shall be elected biennially, and the first election under this act shall be at such time in said city as the probate judge of Iron county shall direct: Provided, raid election shall be on or before the first Monday in August next. Said election shall be held and conducted as now is provided by law for the holding of elections for county and Territorial officers; and, at the said first election, all electors within said city limits shall be entitled to vote.

SEC. 6. The clerks of election shall leave with each person elected, or at his usual place of residence, within five days after the election, a written notice of his election; and each person so notified shall, within ten days after the election, take the oath or affirmation hereinbefore mentioned, a certificate of which oath shall be deposited with the recorder, whose appointment is hereinafter provided for, and be by him preserved; and all subsequent elections shall be held, conducted and returns thereof made as may be provided for by ordinance of the

SEC. 7. The city council shall have authority to levy and collect taxes for city purposes upon all taxable property, real and personal, within the limits of the city, not exceeding one-half of one per cent. per annum upon the assessed value thereof; and may enforce the payment of the same in any manner to be provided by ordinance not repugnant to the Constitution of the United States or the laws of

this Territory.

SEC. 8. The city council shall have power to appoint a recorder, treasurer, assessor and collector, marshal and supervisor of streets. They shall also have power to appoint all such other officers, by ordinance, as may be necessary, define the duties of all city officers and

remove them from office at pleasure.

SEC. 9. The city council shall have power to require of all officers, appointed in pursuance of this act, bonds with security, for the faithful performance of their respective duties, and also to require of all officers, appointed as aforesaid, to take an oath for the faithful performance of the duties of their respective offices.

SEC. 10. The city council shall have power and authority to make,

ordain, establish and execute all such ordinances, not repugnant a Constitution of the United States or the laws of this Territory, as may deem necessary for the peace, benefit, good order, regulation. venience and cleanliness of said city; for the protection of proper therein from destruction by fire or otherwise, and for the health and happiness of the inhabitants thereof; and shall have control of the water and water courses leading to the city: Provided, that such control shall not be exercised to the injury of any rights already acquired by actual settlers thereon; and shall have control of the water courses and mill privileges within said city; but in no case shall they interfere with the natural rights of others heretofore acquired in relation a water. They shall have power to fill all vacancies that may happen be death, resignation, removal or otherwise, of any of the officers herein made elective; to fix and establish the fees of the officers of said corporation. The city council shall have power to divide the city into wards and specify the boundaries thereof.

SEO. 11. All ordinances passed by the city council shall, within ten days after they shall have been passed, be published in some newspaper printed in said city, or certified copies thereof be posted up in three of the most public places in the city. They shall not be in

force until thus published or posted up.

SEC. 12. All ordinances of the city may be proven by the seal of the corporation, and, when printed or published in book or pumphlet form, purporting to be printed or published by the authority of the corporation, the same shall be received in evidence in all courts

and places, without further proof.

SEC. 13. The justices of the peace of said city shall have all the powers of other justices of the peace, both in civil and criminal cases arising under the laws of the Territory. They shall perform the same duties, be governed by the same laws, give the same bonds and securities as other justices of the peace. They shall have exclusive jurisdiction in all cases arising under the ordinances of the corporation, and shall issue such process as may be necessary to carry such ordinances into execution. Appeals may be had from any decision or judgment of said justices, arising under the ordinances of said city, or the laws of the Territory, in the same manner as appeals are or may be taken from other justices of the peace.

SEC. 14. The mayor shall be chief executive officer of said corporation; he shall preside in the city council, and shall have power to veto any ordinance when not passed by four-fifths majority, and it

shall be his duty to sign all city ordinances.

SEC. 15. The city council shall have power to restrain, regulate or prohibit the running at large of cattle, horses, mules, sheep, swine, goats and all kinds of poultry; and to tax and regulate the keeping of dogs, and to authorize the destruction of the same when at large con-

trary to city ordinance.

SEC. 16. To license, regulate, prohibit or restrain the manufacturing selling or giving away of spirituous, vinous or fermented liquors; [16] tax and regulate] tavern keepers, dram or tippling shop keepers, bounding, victualing, or coffee houses, restaurants, saloons or other houses or places for the selling or giving away of ardent, vinous or fermented liquors.

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SEC. 17. The city council shall have exclusive power, by ordinance, to regulate the police of the city; to license, tax and regulate auctioneers, merchants and retailers; to license, tax and regulate theatrical and other exhibitions, shows and amusements; to prohibit and suppress gaming, bawdy and other disorderly houses.

SEC. 18. This act shall be in force on and after the tenth day of April, one thousand eight hundred and sixty-eight, and may be amended or repealed at the pleasure of the Legislative Assembly.

II. CEDAR.

An Act incorporating Cedar city, in Iron county.

[Approved February 18, 1868.]

SEC. 1. Be it enacted by the Governor and Legislative Assembly of the Territory of Utah: That all that portion of Iron county situated within the following boundaries, to wit: Beginning at the mouth of Coal-Creek canon, thence north three miles, thence west six miles, thence south six miles, thence east six miles, thence north three miles w the place of beginning, shall be known and designated under the name and style of Cedar city; and the inhabitants thereof are hereby constituted a body corporate and politic by the name and style aforeaid, and shall have perpetual succession and may have and use a common seal; which they may change and alter at pleasure.

SEC. 2. The inhabitants of said city, by the name and style aforeaid, shall have power to sue and be sued, to plead and be impleaded, defend and be defended in all courts of law and equity and in all actions whatsoever; to purchase, receive and hold property, real and permal, in said city; to purchase, receive and hold real property beyond he city for burying grounds and other public purposes for the use of the inhabitants of said city, to sell, lease, convey or dispose of propety, real and personal, for the benefit of said city; to improve and protect such property, and to do all other things in relation thereto as

mural persons.

SEC. 3. There shall be a city council, to consist of a mayor, and five councilors, who shall have the qualifications of electors of mid city, and shall be chosen by the qualified voters thereof, and shall hold their offices for two years, and until their successors shall be elected and qualified. The city council shall judge of the and returns of their own members, and a mabrity of them shall form a quorum to do business; but a smaller number may adjourn from day to day and compel the attendance of absent members, under such penalties as may be prescribed by ordihance; there shall also be elected in like manner two justices of the peace, who shall have the qualifications of voters, be commissioned by he governor, and have jurisdiction in all cases arising under the ordihances of the city.

SEC. 4. The mayor and councilors, before entering upon the duties their offices shall take and subscribe an eath or affirmation that they will support the Constitution of the United States and laws

Utah Code, Annotated Section 10-8-14

"10-8-14. Water, sewer, gas, electricity, telephone, and public transportation -- Service beyond city limits -- Retainage of escrow. (1) [City Councils of cities] may construct, maintain and operate waterworks, sewer collection, sewer treatment systems, gas works, electric light works, telephone lines or public transportation systems, or authorize the construction, maintenance and operation of the same by others, or purchase or lease such works or systems from any person or corporation, and they may sell and deliver the surplus product or service capacity of any such works, not required by the city or its inhabitants, to others beyond the limits of the city. * * *."

APPENDIX 2

Water Rights

Form 152

BEFORE THE STATE ENGINEER OF THE STATE OF UTAH ELECTION TO FILE WATER USERS CLAIM

Arridoalion No. 25050 (75-27)
STATE OF UTAH) . ss.
COUNTY OF Iron
Parcwan City Municipal Corporation Ralph Orton, Mayor, being first duly sworn,
says that he is the owner of the above application; that the development con
templated under this application has been completed and the water placed to
beneficial use. In lieu of "Proof of appropriation", the applicant hereby
elects to file "A statement of water users claim" or "An amended water users
claim" in the pending GENERAL DETERMINATION OF WATER RIGHTS; and that the
applicant requests that said statement be prepared by the State Engineer and
submitted for execution at an early date. Applicant
Subscribed and sworn to before me this 2; day of April
19 <u>66</u> .
Andra Mc Call Notary Public

5-25/25/06 5-25/25/06

10.

IN THE ___FIFTE __ JUDICIAL DISTRICT COURT, IN AND FOR THE COUNTY OF ___IRON ____ STATE OF UTAH

(b) All sources of water for same stock. (Describe by name or claim number	r)
(2) Number of each kind of stock watered	
(b) Do you get water under a ditch owned by several users	If so, give names of all users and
	-**

be described in each instance by name or claim number)	uttes of water for same land or lands must
Where water is used for irrigation purposes: (a) Area irrigated in legal subdivisions of land by 40-acre tract. (All so	proces of system for same land as to do
174-77.	
(d) If flow is intermittently diverted, list by number or description, all ri	ights involved
(c) Point of rediversion or point of return to natural channel	***************************************
(b) Description of spring area	
M. 1400 It. W. 930 It. from the SE cor. Sec.	36. T348. RW. SLBAM.
(a) Point of diversion from MENNEX SERVINE STEAM, WMV NAMES WAY	ėrc "77
. Direct Flow Appropriation (must be described with reference to U. S. G	overament Survey Corner) P
(d) Municipal Sec. Ft. /6:2* from (e) XX POWER Sec. Ft. 25.70 from Jan. 1	o Dec. 31 (both dates incl.)
(c)Domestic Sec. Ft. from	O (both dates incl.)
(b) Stockwatering Sec. Ft. from	(both dates incl.)
(a) Irrigation Sec. Ft. from	(both dates incl.)
(e)Right acquired by adverse use prior to 1939	
(d) Application filed, State Engineer's Office No. 9214; 8-3850	Cert of App. No. 1410-a ; Electic
(c)Right decreed by court, cite title of case	
(b)Right to underground water initiated before 1935 Claim No.	
 Class of Right (Indicate by X): (a)Right to surface water initiated by beneficial use before 1903 Cla 	im No
Nature of work	-
Date when work on diverting system was first begun	Date when diverting system was completed
4. Priority date claimed Dec. 103 1926. Date when water was	first used Dec. 15, 1922
3. Name of particular MONEY PROPERTY Stream, WARK MENNIMENTAL Tron Parowan Main Creek in	which water is diverted is
2. Address Parowan, Utah 3. Name of particular Wanneyangurang Anna Anna Anna Anna Anna Anna Anna A	7.1
	Interest Claimed fix13
1. Name of Claimant Parowan City Municipal Corpor	ration
laim with the Clerk of the District Court within the time stated will forever to the use of water from said drainage area.	r bar and estop you from asserting any right
ned with the State Engineer, State Capitol, Salt Lake Ciry, Failure to file	the greeched Stargement of the Wester Harris
nuss be answered fully, and one copy of this form must be filed with the C Parowan , Utah, within sixty (60) days from date of se	lerk of the District Court at
rection with the adjudication of water rights on the above mentioned design	to area. All opposione applicable so your claim
NOTE: This blank is sent to you in accordance with Utah Law. The inform	and a shipt for the Control of the Control
	MAP NO36
ASHINGTON, KANE AND GARFIELD COUNTIES IN UTAH.	20
REA OF THE BEAVER RIVER-ESCALANTE VALLEY AND LL TRIBUTARIES IN MILLARD, BEAVER, IRON	(75 27
URFACE AND UNDERGROUND, WITHIN THE DRATNAGE	CODE NO. SERIAL NO.
OF RIGHTS, TO THE USE OF ALL THE WATER, BOTH	USER'S CLAIM
IN THE MATTER OF THE GENERAL DETERMINATION	STATEMENT OF WATER
The production is a summary	

11	. Where water is used for Municipal Purposes:
	(a) Name of city or town supplied
	Number of families
12.	where water is used for a purpose not above enumerated: (a) Nature of Use Generation of Power than non-computative
	for use of Parowan City and surrounding area.
12	Appropriate to Company
	Appropriation for Storage Purposes: (a) Name of reservoir
	(b) Location of reservoir by legal subdivisions described by 40-acre tracts
	(c) Maximum capacity of reservoir in acre feet
	Completed :: Water first used :: Is reservoir located on or off stream
	(d) Period of Storage from to both dates incl.). Period of use from to
	to
	Average depth in feet
	carrying capacity in sec. it
14.	Diverting Works:
	(a) Surface water diverting dam: Material composed of
	Max. length Max. height Max. width at bottom Max. width
	ас юр
	(b) Underground water diverting works: Is well flowing or pump
	Diameter of well Length of drain Width of drain Depth of drain
	Diameter of drain Length of tunnel
	Type of pump
	(c) Surface and underground water conveying works: Length of ditch to first place of use
	ditch at top
	disch per 1000 ft
	pipe line to first place of use
	The undersigned hereby enters his appearance and waives service of summons or other process.
	TF OF ITTAIN
COD	NTY OF
	being first duly sworn, upon oath deposes and says that he is the claimant
whos	e name appears hereon, that he has read the foregoing statement of his claim and knows the contents thereof, that is signed the same, and that the answers set forth therein are true to his best knowledge and belief.
	Signature of Claiman
Subse	ribed and cursos to before much:
00030	ribed and sworn to before me this
	NOTARY PUBLIC
STAT	E OF UTAH
	SS. (To be used if claimant is a corporation or an estate)
COUN	TRON 180N
********	Relph Orton , being first duly sworn, upon oath deposes and says that he is the
********	Mayor of the above claimant, that he makes this certification on behalf of said
claima	nt, that he has cead the foregoing statement of claim and knows the contemps thereof, and that he has signed the name
of said	I claimant to said statement, that the answers set forth therein are true to his best knowledge and belief,
	Malan J Colore
Subscr	ibed and sworn to before me this day of
	I work in
	Spalle III alf
	NOTARY PUBLIC

HEFORE THE STATE ENGINEER OF THE STATE OF UTAH ELECTION TO FILE WATER USERS CLAIM

APPLICATION NO. 15726	STATE ENGLISH
STATE OF UTAH)	A STATE OF THE STA
COUNTY OF Iron	
THE RESERVE OF THE PROPERTY OF	first duly sworn,
Parowan City Corporation says that my is the owner of the above application; the	at the development con-
templated under this application has been completed an	d the water placed to
peneficial use. In lieu of "Proof of appropriation",	the applicant hereby
elects to file "A statement of water users claim" or "	An amended water users
claim" in the pending GENERAL DETERMINATION OF WATER R	IGHTS; and that the
applicant requests that said statement be prepared by	the State Engineer and
submitted for execution at an early date. PAROWAN	CITY CORPORATION
(Johner A	pplicant (Mayor)
Subscribed and sworn to before me this 10 day	of September
962.	

MEMO: Statement of Water Users Claim to be checked by Ralph B. Platt, Consulting Engineer, Cedar City, Utah, for and in behalf of Parowan City Corporation.

My Commission Expires March 21, 1963

Y

Notary Public Cedar City, Utah

IN THE ____FIFTH JUDICIAL DISTRICT COURT, IN AND FOR THE COUNTY OF IRON STATE OF UTAH

STATEMENT OF WATER IN THE MATTER OF THE GENERAL DETERMINATION USER'S CLAIM OF RIGHTS TO THE USE OF ALL THE WATER, BOTH CODE NO. SERIAL NO. SURFACE AND UNDERGROUND, WITHIN THE DRAINAGE 75 5 AREA OF THE BEAVER RIVER-ESCALANTE VALLEY AND ALL TRIBUTARIES IN MILLARD, BEAVER, IRON WASHINGTON, KANE AND GARFIELD COUNTIES IN UTAH. MAP NO.36.... NOTE: This blank is sent to you in accordance with Utah Law. The information called for herein will be used in connection with the adjudication of water rights on the above mentioned drainage area. All questions applicable to your claim must be answered fully, and one copy of this form must be filed with the Clerk of the District Court at PATOWAN, Utah, within sixty (60) days from date of service of the attached Notice. A copy shall be filed with the State Engineer, State Capitol, Salt Lake City. Failure to file the attached Statement of the Water User's Claim with the Clerk of the District Court within the time stated will forever bar and estop you from asserting any right to the use of water from said drainage area. 1. Name of Claimant _______Parowan_Gity_Municipal_Corporation_____ Interest Claimed fill 2. Address Pargyan, Utah 3. Name of particular этиму учен well, готом which water is diverted is Underground Water in Iron County 4. Priority date claimed ...June...21, ...1957............ Date when water was first usedJune...21, ...1957....... Nature of work 5. Class of Right (Indicate by X): (a)......Right to surface water initiated by beneficial use before 1903 Claim No. (b)......Right to underground water initiated before 1935 Claim No. (c).....Right decreed by court, cite title of case (d) XX Application filed, State Engineer's Office No. 15726 Cert. of App. No. Election (e)......Right acquired by adverse use prior to 1939 6. Nature (Indicate by X), Amount, and Annual Period of Use (by month & day): (a) irrigation (b) Stockwatering Sec. Ft. from to (both dates incl.) Sec. Ft. (both dates incl.) (d) Municipal Sec. Ft. from to (both dates incl.)

(e) XX POWER Sec. Ft.1.047 from Jan. 1 to Dec. 31 (both dates incl.) 7. Direct Flow Appropriation (must be described with reference to U. S. Government Survey Corner) (a) Point of diversion from sping responsers, well, which was a sec. 36, T348, R9W, SLB&M.

N. 1300 ft. W. 960 ft. from the SEc cor. Sec. 36, T348, R9W, SLB&M. (b) Description of spring area (c) Print of rediversion or point of return to natural channel
N. 1480 ft. W. 930 ft. from the SE cor. Sec. 36, T34S, R9W, SLB&M. (d) If flow is intermittently diverted, list by number or description, all eights involved 8. Where water is used for irrigation purposes: (a) Area irrigated in legal subdivisions of land by 40-acre tract. (All sources of water for same land or lands must be described in each instance by name or claim number).....

divisions of interest

(2) Number of each kind of stock watered (b) All sources of water for same stock. (Describe by name or claim number)

(Describe by name or claim number)

Where water is used for Stockwatering:

Where water is used for Domestic:

11.	Where water is used for Municipal I	Purposes:		
	(a) Name of city or town supplied			
	Number of lamilies		Quantity of water	***************************************
12.	Where water is used for a purpose of	not above enumerated;		non-come unitive
	(a) Nature of Use Generation	H OI FOWEI	Extent of Use	Hott-Companiporve
	For use within Perowan			

	Annualization for State of Theorem			
ıs.	Appropriation for Storage Purposes: (a) Name of reservoir			
	(b) Location of reservoir by legal sub			
	(b) Location of reservoir by legal suc			
	(c) Maximum capacity of reservoir in	acra fant	· Vess construction com	menced
	Completed: Water	fire need	Is reservoir located on	or off stream
	(d) Period of Storage from	10	(both dates incl.). Period	of use from
	to (both dates incl.)	Maximum area in acres i	nundated Ma	ex. depth in feet
	Average depth in feet	ls reservoir drained each	vest Maximum	number of fillings per
	year ls reservoir used to			
	carrying capacity in sec. ft		•	
14.	Diverting Works:			
	(a) Surface water diverting dam: Mat	erial composed of	PPRAPARTURAL	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Max. length Max	. height	Max, width at bottom	Max. width
	at 10p			
	(b) Underground water diverting wo	orks: Is well flowing or	pump Dept	h of well
	Diameter of well Leng	gth of drain	Width of drain	Depth of drain
	Diameter of drain Length of	runnelWidth	of tunnel Hei	ght of tunnel
	Type of pump	y of pump		
	(c) Surface and underground water co	onveying works: Length	of disch to first place of use.	Width of
	ditch at top Widt	h of disch as bostom,	Depth of water	Grade of
	ditch per 1000 ft	al through which ditch	passes	Maximum length of
	pipe line to first place of use	Diameter of	pipe line	Grade of pipe line per
	1000 feet	, i		
15.	The undersigned hereby emers his op	pearance and waives serv	rice of summons or other pro)(655.
er a	TE OF UTAH			
317	ile of offin	SS (To be used if c	aimant is an individual)	
COL	JNTY OF	35. (10 be 65.0 ii c		
٠.		being first duly sw	orn, upon oath deposes and s	ays that he is the claimant
who	ose name appears hereon, that he has	read the foregoing scater	sent of his claim and knows	the contents thereof, that
he l	ras signed the same, and that the answ	ers set forth therein are	true to his best knowledge	and belief.
	,	•		
			Signature of Cla	imanı
Sub.	scribed and sworn to before me this	day of		19
		*********	NOTIN DIT	DT 16
			NOTARY PU	SLIC
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STA	TE OF UTAH	} cc (T 1:1:1:1	· · · · · · · · · · · · · · · · · · ·	******
~~1	INON	\$55. (10 De used il Cir	imant is a corporation or an	Estate)
LUL	ANA 1 OF] 	and dances and rau	e that he is the
		, being first duty sworn	, upon oath deposes and say that he makes this certifi	carion on behalf of said
 ماماء	nant, that he has read the foregoing str			
. F e	aid claimant to said statement, that the	answers sei forth therei	a are toke toy his best know	redge and belief.
. S:	and tremment to seed statement, that the	, partery and token meter	11.67 61	1
			Kalesti Alla	600-
Suhe	cribed and sworn to before me this	20 day of	april	1962.
	transfer and the perore me day to		7,	
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			NOT LOST BUT	ar i c

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SUMMARY OF POWER GENERATION WATER RIGHTS PAROWAN CITY AS OF 21 MAY 2001

WR NUM.	SOURCE	FLOW	P.O.D.	PRIORITY
75-5	Underground Water Well ("Forebay Well")	1.047 cfs	N 1300' W 960' from SE'4 Cor. Sec. 36, T34S, R9W, SLB&M	June 21, 1957
75-27	Parowan Main Creek	24.0 cfs	N 1480' W 930' from SE Cor. Sec. 36, T34S, R9W, SLB&M	December 15, 1922
75-108	Red Creek	10.0 cfs	N 1070' E 650' from W'4 Cor. Sec. 36, T33S, R8W, SLB&M	July 13, 1956
75-122	South Fork of Red Creek	3.0 cfs	S 420' W 600' from NE Cor. Sec. 2, T34S, R8W, SLB&M	Jan 19, 1961

APPENDIX 3

Letter from

Parawon Reservoir Company

Parowan Reservoir Company 41 South 100 East + PO Box 541 Parowan, Utah 84761

Honorable Donald Landes, Mayor Parowan City 5 South Main PO Box 576 Parowan, Utah 84761

RE: Parowan Canyon pipeline

Dear Mayor Landes:

Parowan Reservoir Company is a mutual irrigation company organized under Utah law as a nonprofit corporation. The purpose of the corporation is to deliver irrigation water to its members. Members include agricultural users in Parowan Valley and Parowan City. The city holds approximately 25% of the shares of the company.

Since at least the 1920s, Parowan Reservoir Company and Parowan City have cooperated in the use and diversion of water from Parowan Main Creek. The city has an interest in delivering irrigation water from the company to irrigation users within the city limits. The company has delivered water to agricultural users outside the city. The city has also used water flow in the canyon for hydro-electric generation. The water system in the canyon has been modified many times over the years to meet the changing needs of city and agricultural irrigation users and the electric generation system. Each change to the system has been made for the mutual benefit of all those who rely on and have rights to use the water.

As the canyon water system presently operates, water from Parowan Main Creek (including water stored in Yankee Reservoir and from the Forebay Well which I will discuss below) is diverted at the Forebay into a flow equalization basin (commonly called the holding pond). Two pipelines lead from the pond. The first serves the pressurized irrigation system for users within Parowan City. The second pipe carries water to the power plant. After discharge from the power plant, the water is divided among the various distribution streams to agricultural users. Any water which is not diverted from the creek at the Forebay and additional flow which enters the creek channel below the Forebay is diverted from the channel by a diversion work on 300 South Street and conveyed about 2 blocks via pipeline to mingle with the water discharged from the power plant.

The existing pipeline with runs from the Forebay to the power plant is a vital part of the system used to deliver water to agricultural users. We understand that Parowan City intends to cease generation of electricity, remove the power plant and remove the pipeline. Removal of the pipeline must not be allowed to happen. Such a removal would cause irrevocable harm to the water delivery system. Without the pipeline in place, a large portion of the water would be lost to seepage and evaporation. Parowan Reservoir Company would not be able to meet its obligation to deliver water to agricultural users.

In making your evaluation regarding abandonment of the city's generation system and obtaining approval from Federal Energy Regulatory Commission, you should take into account the following facts:

- (a) Parowan Reservoir Company has the right to divert the entire flow of Parowan Main Creek at the Forebay. That right is independent from the right which Parowan City has to divert water for electric generation at the same location. The reservoir company's right to divert the water at that location is part of the following water rights for irrigation and stock water:
- (i) WUC 75-974 allows the diversion of up to 22.6 cfs and a total of 13969 ac-ft per year from the flow of Parowan Main Creek for irrigation of 3476 acres plus water for 3315 equivalent livestock units (a livestock unit is the amount of water required by 1 cow).
- (ii) WUCs 75-35, 75-37 and 75-980 allow storage of 1200 ac-ft in Yankee Reservoir. When the stored water is released from the reservoir, it flows to the Forebay. The water rights allow rediversion of the water at the Forebay.
- (iii) WUC 75-6 is for underground water. The well is located just above the Forebay. Water from the well flows into the Forebay. The water right allows rediversion of the water at the Forebay.

Thus it can be seen that even if water is not diverted at the Forebay for power purposes, the reservoir company has the right to divert all of the water at that location.

- (b) Removal of the pipeline will not result in the water remaining in the creek channel below the Forebay. To exercise its water rights and meet its obligations to its shareholders, Parowan Reservoir Company would be forced to expend a large sum of money (latest estimates exceed \$1 million) to replace the pipeline with one of its own. Intentional removal or destruction of the existing pipeline only to force construction of a new one is pointless at best. Why should a serviceable asset be removed from service when the removal will be of no benefit to anyone?
- (c) The canyon water system was developed and modified over the years as a whole system. Use of the pipeline for conveyance of irrigation water is an important part of the system. Without continued use of the pipeline for that purpose, the remaining parts of the system will not function properly. For instance, the diversion works on 300 South Street are not of sufficient size to carry all the water if the majority of Parowan Main Creek flow is not carried by the existing pipeline to the power plant.
- (d) The agricultural irrigators have an unwritten ownership interest in the pipeline. When the present pipeline was installed to the power plant, the city made an at least implied promise that it would continue to deliver the flow of Parowan Main Creek to that location. Other diversion works and the division system immediately below the power plant were constructed and sized based on that promise. To unilaterally remove the power pipeline at this time would render the other works obsolete and place an unfair burden on the reservoir company.

- (e) Parowan Reservoir Company has expended funds for maintenance of the pipeline for at least the past 3 years so that it can continue to be used to deliver irrigation water.
- (f) Everyone involved in the use of the water has long recognized that the pipeline is not solely for power generation but is also used to convey irrigation water. For instance, part of the pipeline crosses BLM land. I've not seen the easement or permit documents for that portion of the pipeline. Joe Melling, the city manager, has stated, however, that the documents recognize that the pipeline is both a power pipeline and an irrigation pipeline.
- (g) Water from Parowan Creek is the sole supply of water to the vast majority of the area for which Parowan Reservoir Company delivers water. Removal of the pipeline will only serve to damage the economy of the area (not to mention the damage to individual water users who rely on water delivered through the pipeline) by making such irrigation more expensive or impossible.

Thank you for the opportunity to comment on the proposal to abandon the power pipeline. I'm sure you can understand how its continued use is absolutely vital to agricultural water users. If the city proceeds with abandonment of its power generation capability, it should turn the pipeline over to Parowan Reservoir Company. The company is prepared to assume responsibility for operation and maintenance of the pipeline.

I reiterate the company's position that it will take whatever action is necessary to prevent removal of the pipeline.

Please feel free to disclose this letter to Federal Energy Regulatory Commission and others as necessary. Please keep us informed as to the status of this matter so that we can be involved in the discussion and decision. Should you need additional information, please contact me.

Sincerely,

Donna Jean D. Mitchell

Donna gean D. mitchell

President

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