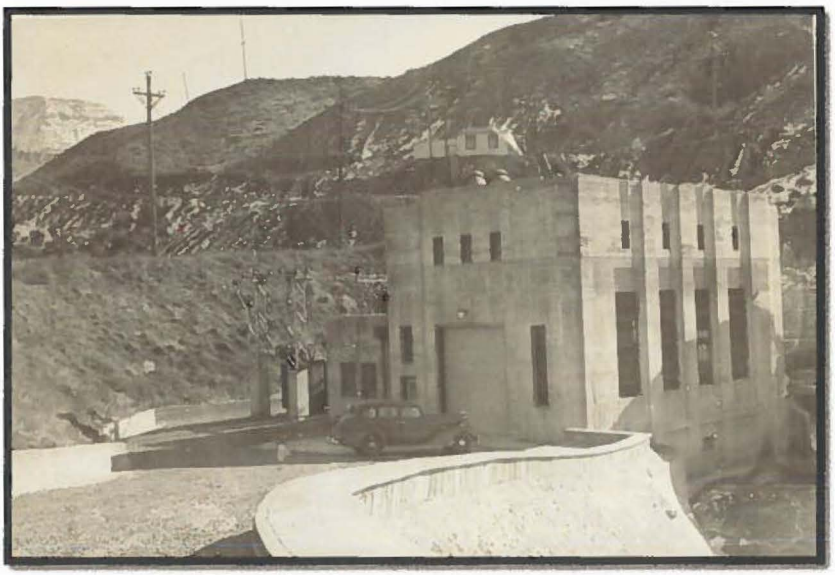
WaterSMART GRANT APPLICATION:

WATER AND ENERGY EFFICIENCY GRANT FY2017
FOA: BOR-DO-17-F012
FUNDING GROUP II

GRAND VALLEY POWER PLANT
TURBINES AND GENERATORS REBUILD
MESA COUNTY, COLORADO



APPLICANT: ORCHARD MESA IRRIGATION DISTRICT (OMID)
668 38 Road
Palisade, CO 81526
info@omirrigation.com
970-464-7885
970-464-5298 (fax)

COAPPLICANT: GRAND VALLEY WATER USERS ASSOCIATION (GVWUA)
1147 24 RD
Grand Junction, CO 81505
office@gvwua.com
970-242-5065
970-243-4871 (fax)

Table of Contents

Acronyms

Name	Acronym
Acre feet	AF or Ac-Ft
Cubic feet per second	CFS or cfs
Colorado Division of Water Resources	CDWR
Extraordinary Maintenance Funds	XM Funds
Funding Opportunity Announcement	FOA
Grand Valley Irrigation Company	GVIC
Grand Valley Power Plant	GVPP
Grand Valley Water Users Association	Association or GVWUA
Kilowatt	KW
Kilowatt-Hours	KWhrs
Lease of Power Privilege	LOPP
Megawatt	MW
Megawatt-Hours	MWhrs
National Environmental Policy Act	NEPA
Operation and Maintenance	O&M
Orchard Mesa Irrigation District	District or OMID
Power Purchase Agreement	PPA
United States Bureau of Reclamation	Reclamation
Water and Energy Efficiency Grant	WEEG
Western Colorado Area Office	WCAO

1 Technical Proposal and Evaluation Criteria

1.1 Executive Summary

Date:	January 18, 2016
Applicant Name:	Orchard Mesa Irrigation District (Primary) & Grand Valley Water Users Association
City:	Palisade
County:	Mesa
State:	Colorado
Estimated Project Start:	Underway
Project Length:	10 - 12 Months
Estimated Project Completion:	November 2018
Federal Facility:	Yes, U.S. Bureau of Reclamation Owned
Funding Group:	II
Amount Requested:	$962,864

Project Summary: The Project Sponsors, comprised of the Orchard Mesa Irrigation District (OMID or District) and the Grand Valley Water Users Association (GVWUA or Association) are seeking Water and Energy Efficiency Grant (WEEG) funding to facilitate the rebuild of the existing Bureau of Reclamation (Reclamation) owned Grand Valley Hydroelectric Power Plant (GVPP). The GVPP is operated by the Project Sponsors under an existing Lease of Power Privilege (LOPP). The overall objective of the project is to restore the facility to an economically and operationally sustainable condition. It is anticipated that WEEG funding will be used to rebuild the turbines and generators of this 83 year old facility. Other funding sources will be used to rebuild and update the electrical components such as switchgear and controls and reline the penstocks. The Total Plant Rehabilitation cost is estimated at $5.2M. The rebuild/upgrade should increase the maximum potential generation output from 2.75 MW to 4.1 MW. No additional flows will be necessary to achieve this projected generation capacity, as this increase will be the result of improved efficiencies. Significant progress has been made on the project to date including, design work, some disassembly, cultural resource surveys, and National Environmental Policy Act (NEPA).

Eligibility: This project falls within this FOA's Section C.3.1.2 Task B – Energy-Water Nexus, implementation of a Renewable Energy Project related to Water Management and Delivery and a secondary benefit under Section C.3.1.3 Task C Benefit to Endangered Species. The project will increase the efficiency of a Reclamation owned hydroelectric plant by almost 50% and ensure the continued operation of a facility whose water rights are critical in maintaining instream flows through the 15-Mile Reach of Endangered Fish Habitat on the Colorado River through the Grand Valley.

1.2 Background

1.2.1 General

The Grand Valley Power Plant (GVPP) was constructed in the early 1930s by the United States through the Bureau of Reclamation with funds advanced by the Public Service Company of Colorado. The GVPP is owned by Reclamation and originally operated by Public Service in conjunction with the nearby Cameo coal-fired power plant. The GVPP was completed and put into service in 1933 by Public Service and since that time little to no upgrades or modernization has occurred. When Public Service chose to decommission the Cameo coal-fired plant in 2009 and cease operation of the GVPP, and in order to keep the GVPP in seamless operation, the District and Association were encouraged by Reclamation to accept assignment of the Public Service Company's Lease of Power Privilege (LOPP). On December 30, 2010, the District and the Association accepted assignment of the LOPP to jointly operate and maintain the plant at their own expense. The annual lease payments to Reclamation started at 3 mills per KWhr in 2011 with a 3% annual escalator. The District and Association have cautiously operated the plant since that time but now realize the daunting task of rehabilitating a worn-out facility that is currently operating in an inefficient and deteriorating state. In fact, a visiting Reclamation engineer once referred to the powerhouse as "Frankenstein's Lab" due to exposed electrical components and aging condition. The objective of the District and Association is to restore the facility to a safe economically and operationally sustainable condition.

Although the District and Association are bound under contract as equal partners in the operation and maintenance of the GVPP, it was decided that the District would be the primary applicant for this grant in order to simplify administration of the project.

Figure 1 GVPP - Unit 2

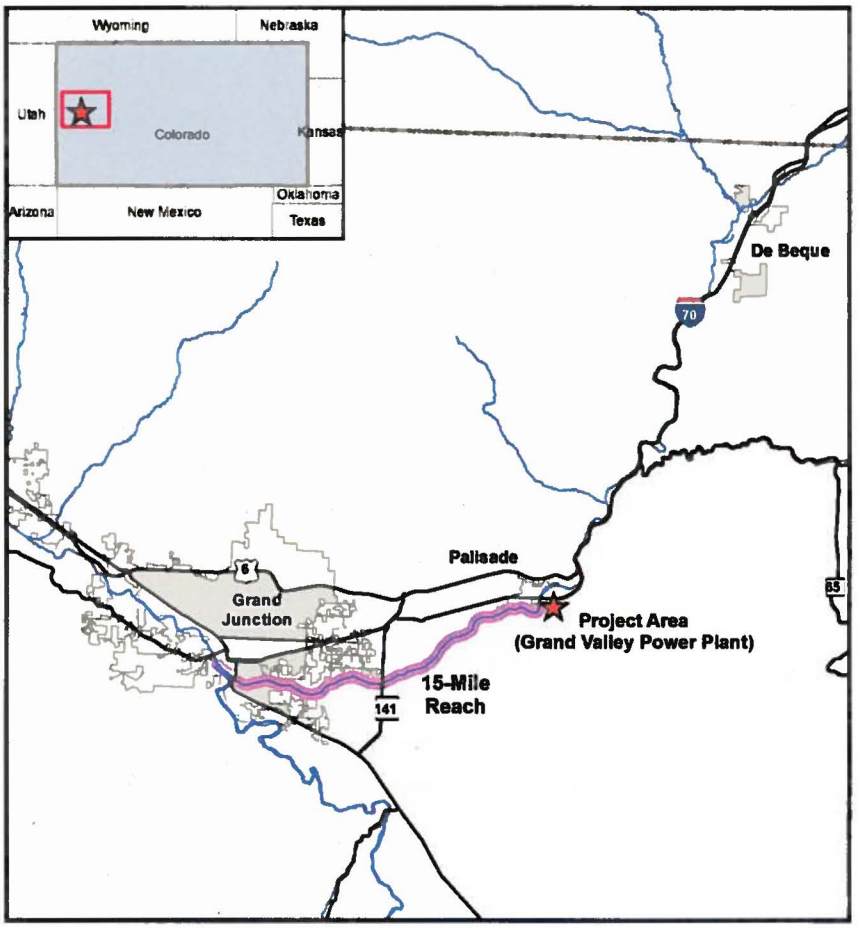


Figure 2 – Project Area Map

Figure 3- GVPP Site Map

Figure 4 - GVPP Switchgear and Controls (aka Dr. Frankenstein's Lab)

1.2.2 Grand Valley Project – District

The Orchard Mesa Irrigation District was formed under the Colorado Irrigation District Law of 1903. In 1921, districts were given the option to be governed under the Irrigation District Law of 1921 (CRS 37-42-101 thru 141), which the District chose to do. The District is currently governed under the Irrigation District Law of 1921 and Article 43, Irrigation Districts of 1905, 1921 and Irrigation District Salinity Control Act (CRS 37-43-101 thru 211). The District was formed for the purpose of diverting, carrying and delivering irrigation water within the District's boundaries.

The District became a division of the U.S. Bureau of Reclamation's Grand Valley Project on March 19, 1921, through the Secretary of the Interior's approval under the Interior Department Appropriation Act for 1923 (42 Stat. 584). The Act authorized federal money for the reconstruction of the Orchard Mesa Division.

The District is a small irrigation district providing irrigation water to about 9,500 acres comprised of high value crops in vineyards and orchards, farms, and urban users in the Grand Valley of Mesa County, east of the Town of Palisade, south of the Colorado River beginning at 39 1/2 Road. The northern boundary line follows the left bank of the Colorado River to the confluence of the Colorado and Gunnison Rivers near downtown Grand Junction, about 15 miles east of the GVPP. The southern boundary of the District is generally the OMID Canal #2. The population within the District is about 15,500 and the population of the Grand Valley as a whole is around 100,000.

The District provides irrigation water to approximately 9,800 parcels in Mesa County, on the western slope of Colorado. The District receives monies through an annual assessment of the water users that is collected by Mesa County with property taxes.

The major crops grown in the District include alfalfa, orchards, vineyards, corn/grain, pasture, grass lawns, and truck gardens. Most vineyards are irrigated with micro-spray or drip systems; orchards with a combination of gated pipe or micro-spray or drip; alfalfa and corn with gated pipe. There are some concrete and earthen siphon tube ditch systems.

1.2.3 Grand Valley Project – Association

The Grand Valley Project was one of the first six projects to be authorized by the Reclamation Act of June 17, 1902, and the Association was officially formed in 1905. It is a private incorporated not-for-profit ditch company. The Association is the managing entity for the majority of the federally owned Grand Valley Project. These Grand Valley Project facilities include the Grand Valley Diversion Dam and headworks, also known as the Roller Dam or Cameo Diversion, on the Colorado River in DeBeque Canyon; the Canyon Canal through DeBeque Canyon; the 55-mile-long Government Highline Canal; 150 miles of project operated laterals; 100 miles of drainage ditches; and the GVPP. Beginning in the late 1980's approximately 130 miles of the laterals have been re-constructed into pressure piped laterals through the Federal Salinity Control Program.

GVWUA first delivered water in 1917 to Reclamation's Grand Valley Project and currently furnishes a full supply of irrigation water to approximately 1,800 water users on 23,500 irrigated acres under the Government Highline Canal and 15,000 irrigated acres under the Mesa County, Palisade, and Orchard Mesa Districts and diverts the water for the Grand Valley Power Plant year round.

Major crops served by the Association include corn, dry beans, alfalfa, grass hay, pasture, small grain and seed crops, fruits, vegetables and a variety of truck crops.

1.2.4 Water Delivery

Water for the GVPP is diverted at the Roller Dam, flows approximately 4.5 miles through the Canyon Canal and is diverted to the District's Power Canal along with the District's irrigation water at the mouth of what's known as Tunnel No. 3. Water flows under the Colorado River through a 12-foot diameter pipe and is delivered to the GVPP and the District's irrigation pumping plant through the 4-mile-long Power Canal.

The District and Association share in the cost of the Canyon Canal operation under a 1955 agreement at 71.6% and 28.4%, respectively. The Association undertakes daily operation of the Roller Dam and Canyon Canal while day-to-day operation of the GVPP and other OMID facilities are carried out by the District. Each entity contributes 50% of the cost of operation and maintenance of the GVPP.

1.2.5 Water Rights

The water for the GVPP is diverted from the Colorado River at the Roller Dam and is a part of what's known as the "Cameo Call." The Cameo Call along with water rights of the Shoshone Hydropower Plant upstream in Glenwood Canyon, control administration of the Colorado River basin within Colorado. The flows generated by the Cameo Call help provide water for recreational activities, environmental benefits, irrigation, power production, some domestic water, and aesthetics along the entire Colorado River. Flows generated by the Cameo Call also help to fulfill the State of Colorado's obligations under the Colorado River Compact and in maintaining water levels in Lake Powell. Water rights that comprise the Cameo Call are designated for irrigation, power production, and domestic use.

The GVPP is located at the beginning of the 15-Mile Reach designated as critical habitat and provides the legal mechanism to deliver surplus water from Green Mountain Reservoir for the endangered fish. Water rights for the GVPP are owned by the United States and put to beneficial use by the Association and District through the LOPP. The maximum water right of 800 cfs has an appropriation date of February 27, 1908, and was adjudicated in 1934. Depending on conditions, the Power Canal has a capacity of up to 800 cfs. Typically, during irrigation season up to 400 cfs may be used for power production while the remainder is used to power the hydraulic pumps delivering water to the District's irrigation canals. During the non-irrigation season, up to the Power Canal's capacity of about 800 cfs may be diverted solely for power production. Table 1.0 summarizes the water rights tied to the Cameo Diversion at the Roller Dam.

Owner	Amount (cfs)	Adjudication Date	Appropriation Date	Use
GVWUA/U.S.	730	7/22/1912	2/27/1908	Irrigation
GVWUA/U.S.	400/800	1934	2/27/1908	Hydro-electric power
GVWUA/U.S.	220	7/25/1941	2/27/1908	Domestic & Livestock
OMID	450	7/22/1912	10/25/1907	Irrigation
OMID	10.2	7/22/1912	10/01/1900	Irrigation
Palisade Irrigation District	23.5	7/25/1941	06/01/1918	Irrigation
Palisade Irrigation District	80	7/22/1912	10/01/1889	Irrigation
Mesa County Irrigation District	40	7/22/1912	07/06/1903	Irrigation

Table 1

Accurate continuous flow data through the GVPP is not available at this time. However, the Division 5 Office of the Colorado Department of Water Resources has confirmed data for 2006, 2007, 2014 and 2015. Figure 3 shows a comparison of the monthly flows through the GVPP between 2006 and 2007 averages as compared with the average of 2014 and 2015.

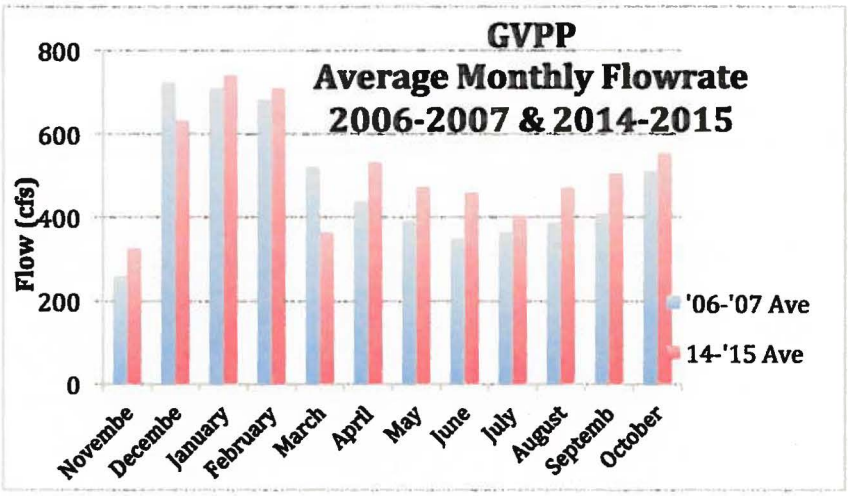


Figure 5

1.3 Project Description

1.3.1 Generator and Turbine Rebuild

The specific work to be undertaken with this proposed grant funding is the rebuild of the two hydropower units at the Grand Valley Power Plant. The work includes but is not limited to the fabrication and installation of new turbine runners, turbine shafts and seals, guide bearings, wicket gates, and the rewind of the generator stators. More specifically the specific work items include but are not limited to the following:

- Disassemble turbine and generator components
- Rewind Stator and Rotor
- Add new RTD's to stator, oil, bearings
- Supply and Install New Stainless Runners and Wear Rings
- New Head Cover and Turbine Bearings
- Couple new turbine shaft to existing shaft
- New Wicket Servos
- New HPU
- New Brushes
- Rebuild or Replace Generator Bearings
- New Sump Pumps and Piping
- New cooling water filter and piping
- Rebuild generator braking cylinders

- Rebuild generator braking cylinders
- New air compressor and controls
- Testing and Commissioning

Total cost for the above materials and installation is estimated at about $2,025,000.

1.3.2 Schedule/Timeline

Table 2, below is the anticipated project schedule for the Total Plant Rehabilitation assuming funding is available to order the new turbine runners in August of 2017. Line items highlighted in gold pertain to items related to this application for the rebuild of the turbines and generators.

GRAND VALLEY HYDRO - ANTICIPATED PROJECT SCHEDULE/COST

Item	Description	Anticipated Timeline
	PHASE 1	
1	Selection of Sorenson Engineering	Apr-16
2	Release Sorenson Engineering, 25% Design to Reclamation	Jul-16
3	Release Riverside, Dismantle Unit #2 & Take Measurements	Jul-16
4	Payment and Performance Bond	Sep-16
5	Administrative Costs Related to the XM Contract	Sep-16
6	Release Turbine Design	Jul-16
7	Release Caribou, Powerhouse Electrical & Substation	Jul-16
8	Design Controls & Switchgear	Jul-16
9	Next Sorenson Payment, 75% Design to Reclamation	Dec 2016
	PHASE 2	
10	First one half construction contingency	0-5
11	Order Turbine*	0
12	Payment and Performance Bond	1
13	Start Rewind of Unit #2	1
14	Pull Unit #1 & Start Rewind	2
15	Order Transformer/Materials, Caribou	2
16	Controls and Switchgear Assembly	2
17	Turbine Payment	5
18	Riverside, Generators Rewind	5
19	Substation and Electrical Work by Caribou	5
20	Next Batdorf Payment	5
21	Sorenson Engineering 100% Design to Reclamation	5
	PHASE 3	
22	Second one-half construction contingency	5-12
23	Payment and Performance Bond	5
24	Obtain Loan Funds	5
25	Riverside, Generators Rewind	6
26	Substation and Electrical Work by Caribou	6
27	Next Batdorf Payment	6
28	Spare Runner Cost	6
29	Order and Install New Trash Rack	7
30	Recoat Penstocks	7
31	Sorenson Engineering Project Management	7
32	Automatic Trash Chute Gates	7
33	Turbines Arrive at RSI	8
34	Reinstall Units with New HPU, Air Compressor, Sump Pumps, etc	8-9
35	Controls and Switchgear arrive	9
36	Batdorf Starts up the Facility	9
37	Online and performance and projection acceptance	10-12
	Line items highlighted in gold are related to turbine/generator rebuild	

Table 2

1.3.3 Alternative Analysis

Basically the District and Association are comparing the presented rebuild alternative to the no-action alternative. The plant is in such a state of deterioration that must either be rebuilt or decommissioned. The recommended alternative will not require new water rights or new infrastructure. The new switching and control equipment can be housed in the current building and land area although there is consideration for moving the stepdown transformer to a nearby alternate location. NEPA work has already commenced for this possibility.

1.4 Evaluation Criteria

1.4.1 Criterion A: Quantifiable Water Savings – Not Applicable

1.4.2 Criterion B: Water Sustainability Benefits

At the time of this writing, one of the two units is inoperable and has been disassembled for a possible rebuild. The remaining unit is still operating but could fail at any time, as well. Since accepting assignment of the LOPP, the District and Association have cautiously operated the plant, performing many repairs in an effort to keep the plant operating. However, the GVPP is in such a state of disrepair left by Public Service Company's lack of upgrades and maintenance that the District and Association are left with two options; either rebuild the plant to modern day standards or continue to operate the plant until it can no longer function. The District and Association are committed to fulfill their obligations under the LOPP that benefits all users who enjoy the Colorado River in its present condition. Therefore they are pushing forward with the goal of rebuilding the GVPP to benefit the environment and the Grand Valley Project for generations to come.

The no-action alternative will result in increased outages and longer delays in repairs and eventually the plant will become inoperable. As the plant loses its ability to produce power and "call" its water right, the legal agreements that rely on the GVPP water right to ensure delivery of water to the 15-Mile Reach and Lake Powell will come into jeopardy.

Benefits of continued operation of the Grand Valley Power Plant sustaining water supply in the Colorado River include:

- The water that flows through the GVPP is non-consumptive and returns to the Colorado River at the head of the 15-Mile Reach, which is designated habitat for the recovery of four endangered fishes, Razor Back Sucker, Colorado Pike Minnow, Humpback Chub and Bony Tail. Operation of this non-consumptive hydro-electric power plant is directly

responsible for providing up to 400 cfs of water to the 15-Mile Reach throughout the critical base flow period (unless it is being checked back to Grand Valley Irrigation Company (GVIC) as part of the Orchard Mesa Check Case Settlement.

- Under the OMID Check Case settlement and stipulation, the GVPP is the preferred delivery point for Colorado River Historic Users Pool (HUP) surplus water that is being delivered to the 15-Mile Reach to provide flows for endangered fish. Surplus Green Mountain HUP releases are delivered first to the GVPP, to the extent capacity is available in the Power Canal, and second to the Municipal Recreation Contracts which further help to maintain instream flows in the 15-Mile Reach through the delivery of up to 30,000 acre-feet annually through the GVPP (see sample contract attached).

- Under the OMID Check Case settlement, the power right for the GVPP normally cannot "call" during the irrigation season. However, it can "call" if diversions under the irrigation water rights at the Grand Valley Project Diversion Dam (Roller Dam) fall below 1,310 cubic feet per second (cfs). This occurred in 2016 and the Cameo Call was put into effect. When the power right is "calling," it brings more water down the Colorado River, which helps maintain flows in the Colorado River above the Grand Valley and through the 15-Mile Reach.

- Water used to produce power at the GVPP flows out of the state (because there are no large diversions between the GVPP and the state line) and helps support lake levels at Lake Powell and is critical to the fulfillment of the Colorado River Compact.

- The legal protection strategy for both the Grand Valley Water Management Project and Orchard Mesa Irrigation District Canal Automation Project (both Recovery Program projects for Endangered Fish) is built upon either delivering surplus HUP water to the Power Plant or re-directing water that would have been diverted and administratively spilled below the 15-Mile Reach to 15-Mile Reach via the Power Plant.

- Maintenance of the Cameo Call was identified by the Colorado Basin Roundtable Basin Implementation Plan as a high priority for the Colorado River Basin. The power right is a part of the Cameo Call, and so maintaining the GVPP so that the power right can continue to be used is important to implementing the BIP. In addition, an operable efficient GVPP can provide additional revenue to GVWUA and OMID, which can be used to help maintain their systems and therefor help maintain the viability of the Cameo Call.

- Various efforts are ongoing in both the Upper and Lower Basins of the Colorado River to implement system conservation and demand management measures in order to reduce consumptive use and increase the amount of water stored in Lakes Powell and Mead. Such efforts could include rotational fallowing of irrigated lands in the Grand Valley or other methods of reducing consumptive use. However, in order for this to work, there must be some means to ensure that the saved consumptive use is delivered to and past the Grand Valley and not picked off by water users upstream. As discussed above, the OMID Check Case settlement allows the power right for the GVPP to be called to the extent that diversions at the Roller Dam fall below 1,310 cfs. So, if irrigation diversions are reduced under the Association or District systems because of system conservation or demand management efforts, the power right can be used to maintain diversions of 1,310 cfs at the Roller Dam. However, if the GVPP is not operational, the power right cannot be called or used for this purpose.

- In summary, when the Grand Valley Project power right is calling, it brings more water down the Colorado River, which helps maintain flows in the Colorado River above the Grand Valley, helps produce power through a renewable energy source, and benefits the endangered fish in the 15-Mile Reach. The continued operation of a reliable GVPP through implementation of this project will ensure these benefits are maximized.

1.4.3 Criterion C: Energy-Water Nexus

Under current operations, when the plant is fully operable, the "water-to-wire" efficiency is estimated at 54%. The rebuild/upgrade recommendation is to increase the maximum generation output from 2.5 MW to 4.1 MW. This will not require additional flows. The increased generation is a result of the planned increase in turbine and generator efficiencies as a result of the generator and turbine rebuild. Due to the current interconnect and power sales agreement, the maximum production is limited to 3.5 MW. This can be increased in the future by amending the current Power Purchase Agreement (PPA) and Interconnection Agreement to increase the maximum allowable output to 4.1 MW. The potential "water-to-wire" efficiency with the proposed upgrades is about 82.5%.

Under existing conditions, the average annual production and revenue are 11,000 MWHrs and $450,000. After the plant rebuild, the average annual production and revenue will be approximately 17,000 MWHrs and $675,000 with potential for additional revenue.

1.4.3.1 Output/Current Production

The Project Sponsors have engaged the help of a private consulting firm, Sorenson Engineering, to assist in implementation of the project. The consultant has taken physical measurements to determine actual net head and generation unit efficiencies at various flows. The flow data, net head, and generation unit efficiencies were used to produce the current production model. The current production model summary is shown in Table 3. (Grand Valley Power Plant Feasibility Study, Sorenson Engineering, 2015).

Existing Conditions Grand Valley Production in Megawatt Hours													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Total
1996	1,432	1,694	1,524	993	478	0	822	697	888	701	519	1,970	11,719
1997	1,975	1,789	864	1,113	913	837	734	928	875	1,145	662	1,801	13,636
1998	1,914	1,730	895	998	877	793	726	871	921	1,102	906	1,914	13,647
1999	1,962	1,774	885	906	912	883	792	853	911	1,063	631	1,915	13,487
2000	1,862	1,722	803	747	818	657	435	172	148	1,074	695	1,960	11,095
2001	1,953	1,772	618	806	941	622	361	844	829	759	808	1,893	12,205
2002	1,908	1,723	1,559	934	830	644	446	384	545	690	756	1,831	12,248
2003	1,814	1,611	822	763	955	822	767	374	843	1,115	612	393	10,890
2004	0	0	83	909	896	720	762	647	736	944	214	0	5,911
2005	0	0	114	958	944	809	861	831	898	1,012	305	1,823	8,556
2006	1,734	1,458	901	1,002	934	762	865	821	920	950	477	1,738	12,562
2007	1,761	1,568	891	1,021	1,029	848	904	942	1,110	968	0	0	11,044
2008	0	0	216	921	968	873	950	940	905	1,143	451	1,979	9,346
2009	1,973	926	700	1,080	926	900	927	895	896	1,051	637	1,820	12,730
2010	1,432	1,694	1,524	993	478	0	822	697	888	701	519	1,970	11,719
2011	848	306	1,099	934	967	838	915	887	918	1,120	0	1,211	10,043
2012	1,432	1,694	1,524	993	478	0	822	697	888	701	519	1,970	11,719
2013	372	600	819	329	820	835	740	859	931	1,153	36	1,203	8,697
2014	1,797	1,622	785	880	898	896	899	1,066	1,045	1,110	1,201	1,919	14,118
Average	1,377	1,247	875	909	845	671	766	758	847	974	524	1,543	11,336

Table 3

1.4.3.2 Output/Upgraded Production

The upgraded recommendations allow for the new units to produce a maximum of 4.1 MW. Due to the current interconnect and power sales contracts, the maximum allowable production is limited to 3.5 MW. The capital cost for the extra 600 KW capacity is a very low cost and provides additional generation potential if the current power sales and interconnection agreements are amended. It also provides increased generation potential in 5 years after the current power sales agreement expires.

If the recommended upgrades were installed at the time of the physical measurements, the total output would have been 4.1 MW instead of 2.7 MW with a flow of 800 cfs.

An upgraded production model was created using the following upgraded parameters.

- New turbine efficiencies
- New generator efficiencies
- Increased generator capacities, 2.05 MW each.

The combined total production is limited to a total output of 3.5 MW due to the limitations of the current Interconnect and PPA.

The upgraded 3.5 MW production model summary is shown in Table 4. *(Grand Valley Power Plant Feasibility Study, Sorenson Engineering, 2015).*

3.5 MW Grand Valley Production in Megawatt Hours													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Total
1996	2,219	2,240	2,022	1,419	745	0	1,307	1,090	1,366	1,094	753	2,604	**16,860**
1997	2,604	2,352	1,255	1,738	1,421	1,322	1,145	1,463	1,339	1,787	1,032	2,384	**19,842**
1998	2,604	2,352	1,333	1,555	1,405	1,264	1,136	1,393	1,436	1,722	1,260	2,604	**20,064**
1999	2,604	2,352	1,319	1,411	1,401	1,397	1,252	1,362	1,405	1,659	874	2,520	**19,557**
2000	2,520	2,436	1,227	1,165	1,263	1,037	678	269	230	1,675	959	2,604	**16,064**
2001	2,604	2,352	930	1,258	1,467	986	572	1,334	1,298	1,202	1,143	2,604	**17,750**
2002	2,604	2,352	2,390	1,463	1,322	1,007	680	559	842	1,082	1,098	2,604	**18,003**
2003	2,604	2,352	1,238	1,198	1,498	1,312	1,208	589	1,289	1,742	954	813	**16,597**
2004	0	0	130	1,400	1,432	1,127	1,198	1,012	1,163	1,457	317	0	**9,236**
2005	0	0	182	1,501	1,479	1,291	1,378	1,325	1,427	1,577	453	2,604	**13,218**
2006	2,604	2,309	1,414	1,562	1,480	1,203	1,382	1,305	1,443	1,482	726	2,602	**19,513**
2007	2,602	2,352	1,400	1,593	1,605	1,353	1,429	1,466	1,734	1,512	0	0	**17,047**
2008	0	0	334	1,437	1,496	1,355	1,494	1,486	1,395	1,785	642	2,604	**14,028**
2009	2,604	1,260	1,077	1,687	1,435	1,429	1,473	1,431	1,378	1,641	887	2,588	**18,891**
2010	2,219	2,240	2,022	1,419	745	0	1,307	1,090	1,366	1,094	753	2,604	**16,860**
2011	1,315	420	1,540	1,456	1,505	1,316	1,455	1,420	1,417	1,747	0	1,596	**15,187**
2012	2,219	2,240	2,022	1,419	745	0	1,307	1,090	1,366	1,094	753	2,604	**16,860**
2013	563	937	1,296	505	1,270	1,336	1,162	1,341	1,439	1,800	56	1,680	**13,384**
2014	2,518	2,322	1,074	1,393	1,374	1,421	1,438	1,671	1,629	1,729	1,686	2,604	**20,858**
Average	1,948	1,730	1,274	1,399	1,320	1,061	1,211	1,194	1,314	1,520	755	2,107	**16,832**

Table 4

1.4.3.3 Additional Upgrade Potential

The current Interconnection Agreement allows for a maximum production of 3.5 MW. An amendment would require an interconnection study and an interconnection rebuild. The estimated cost of the interconnect study is $20,000 and the cost of the actual rebuild could vary between $150,000 to $400,000 depending on conditions and administrative and physical requirements of the purchaser.

In order to fully exercise the increased power potential of up to 4.1 MW the Power Purchase Agreement would need to be amended, as well. The current power sales contract has about 4 years remaining. The 4.1 MW potential

production model is shown below in Table 5. *(Grand Valley Power Plant Feasibility Study, Sorenson Engineering, 2015).*

4.1 MW Grand Valley Production in Megawatt Hours													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Total
1996	2,230	2,593	2,335	1,538	745	0	1,307	1,090	1,366	1,094	807	3,023	18,127
1997	3,025	2,734	1,337	1,738	1,421	1,322	1,145	1,463	1,339	1,787	1,032	2,762	21,104
1998	2,996	2,709	1,396	1,555	1,405	1,264	1,136	1,393	1,436	1,722	1,397	2,987	21,395
1999	3,019	2,729	1,373	1,411	1,401	1,397	1,252	1,362	1,405	1,659	969	2,928	20,907
2000	2,897	2,743	1,257	1,165	1,263	1,037	678	269	230	1,675	1,068	3,018	17,302
2001	3,013	2,729	955	1,258	1,467	986	572	1,334	1,298	1,202	1,267	2,979	19,060
2002	2,990	2,687	2,474	1,463	1,322	1,007	680	559	842	1,082	1,203	2,920	19,228
2003	2,898	2,580	1,292	1,198	1,498	1,312	1,208	589	1,289	1,742	954	613	17,173
2004	0	0	130	1,400	1,432	1,127	1,198	1,012	1,163	1,457	330	0	9,249
2005	0	0	182	1,501	1,479	1,291	1,378	1,325	1,427	1,577	480	2,893	13,533
2006	2,773	2,312	1,417	1,562	1,480	1,203	1,382	1,305	1,443	1,482	756	2,772	19,889
2007	2,809	2,504	1,400	1,593	1,605	1,353	1,429	1,466	1,734	1,512	0	0	17,406
2008	0	0	334	1,437	1,496	1,355	1,494	1,486	1,395	1,785	697	3,026	14,504
2009	3,024	1,447	1,097	1,687	1,435	1,429	1,473	1,431	1,378	1,641	982	2,869	19,893
2010	2,230	2,593	2,335	1,538	745	0	1,307	1,090	1,366	1,094	807	3,023	18,127
2011	1,330	482	1,739	1,456	1,505	1,316	1,455	1,420	1,417	1,747	0	1,854	15,721
2012	2,230	2,593	2,335	1,538	745	0	1,307	1,090	1,366	1,094	807	3,023	18,127
2013	582	944	1,302	505	1,270	1,336	1,162	1,341	1,439	1,800	56	1,904	13,641
2014	2,816	2,529	1,209	1,393	1,374	1,421	1,438	1,671	1,629	1,729	1,849	2,986	22,043
Average	2,151	1,943	1,363	1,418	1,320	1,061	1,211	1,194	1,314	1,520	814	2,399	17,707

Table 5

1.4.3.4 Environmental Benefits

The water that flows through the GVPP is non-consumptive and returns to the Colorado River at the head of the 15-Mile Reach which is designated habitat for the recovery of four endangered fishes, Razor Back Sucker, Colorado Pike Minnow, Humpback Chub and Bony Tail. Operation of this non-consumptive hydro-electric power plant is directly responsible for providing up to 400 cfs of water to the 15-Mile Reach throughout the critical base flow period (unless it is being checked back to Grand Valley Irrigation Company (GVIC) as part of the Orchard Mesa Check Case Settlement.

Under the OMID Check Case settlement (available upon request), the GVPP is the preferred delivery point for Colorado River Historic Users Pool (HUP) surplus water that is being delivered to the 15-Mile Reach to provide flows for endangered fish. Surplus Green Mountain HUP releases are delivered first to the GVPP, to the extent capacity is available in the Power Canal, and second to the Municipal Recreation Contracts, which further help to maintain instream flows in the 15-Mile Reach through the delivery of up to 30,000 ac-ft annually through the GVPP (see sample Muni-Rec contract in Appendix).

The clean renewable energy from this hydroelectric plant will likely offset production of a coal-fired power plant. The production of 17,000,000 KWHrs

annually will eliminate approximately 36,000,000 pounds of CO2, 30,000 pounds of NOx, and 65,000 pounds of SO2 emissions into the environment annually.

1.4.4 Criterion D – Addressing Adaption Strategies in a WaterSmart Basin Study - Not Applicable

1.4.5 Criterion E – Expediting Future On-Farm Irrigation Improvements - Not Applicable

1.4.6 Criterion F – Implementation and Results

1.4.6.1 SubCriterion No. F.1 Project Planning

In 2016 the District adapted an updated Water Management Plan with help from a Reclamation Field Services Program grant. The District formulated the plan using Reclamation's "Guidebook for Preparing Agricultural Water Conservation Plans." Table 7-1 within the District's Plan, identifies the rebuild/rehabilitation of the GVPP as a high priority goal with a total cost estimate of $5.2M. The District's Water Management Plan was submitted to Reclamation and is on file in the Upper Colorado Regional Office and/or the Western Colorado Area Office.

1.4.6.2 Subcriterion No. F.2 Support and Collaboration –

As described in section 1.4.2, Water Sustainability, the continued operation of the GVPP is critical to Colorado River operations. Widespread support of the project comes from multiple states, basins, conservation groups, water conservation, conservancy, and irrigation districts. These include but are not limited to such entities as the Colorado Water Conservation Board, Colorado River Conservation District, Reclamation, The Upper Colorado River Endangered Fish Recovery Program, The Walton Foundation, Trout Unlimited, The Nature Conservancy, Northern Water Conservancy District, Denver Water and various entities in and out of the Colorado River Basin. (See Appendix for Letters of Support.) All of these entities understand the importance of sustained operation of the GVPP as it relates to maintaining reliable flows in the Colorado River from its headwaters to Lake Powell.

Various cooperative efforts are ongoing in both the Upper and Lower Basins of the Colorado River to implement system conservation and demand management measures in order to reduce consumptive use and increase the amount of water stored in Lakes Powell and Mead. Such efforts could include rotational fallowing of irrigated lands in the Grand Valley or other methods of reducing consumptive use. However, in order for this to work, there must be some means to ensure that the saved consumptive use is delivered to and past

the Grand Valley and not picked off by water users upstream. The continued operation of the GVPP is a critical tool in allowing these flows to be shepherded to Lake Powell. Thus many entities are interested in the sustained operation of the GVPP for a variety of purposes.

1.4.6.3 Subcriterion F.3 Performance Measures

The improved energy efficiency achieved through implementation of this project can be simply determined by measuring the power produced after the project and comparing to the power produced before the project. Water sustainability and environmental benefits are much more difficult to quantify, but scenarios could be studied which could describe river conditions and legal water right "call" conditions had the plant not been operable.

1.4.7 Criterion G: Additional Non-Federal Funding

The cost of the GVPP Total Plant Rebuild is estimated to be $5.2M. The total cost of the turbine and generator rebuild portion of the project is estimated at about $2.029M. The runner for Unit No. 2 was disassembled and removed in 2016 using Federal Appropriated Extraordinary Maintenance Funds (XM Funds) amounting to $100,000. This portion of the project is not to be included in the WEEG portion of the project. Thus the WEEG Project Cost for the turbine and generator rebuild is $1.929M

$$\text{Turbine/Generator Rebuild: } \frac{\text{Non-Federal Funding}}{\text{Total Project Cost}} \quad \frac{\$\ 964{,}862}{\$1{,}929{,}724} = 50\%$$

Project

1.4.8 Criterion H: Connection to Reclamation Project Activities

The GVPP is a Reclamation owned facility jointly operated by the District and Association, the two entities who operate Reclamation's Grand Valley Project. The GVPP is also key in delivering water to the 15-Mile Reach of Critical Endangered Fish Habitat under contract from Green Mountain Reservoir, a component of the Colorado Big Thompson Project.

2 Performance Measures

2.1 Performance Measure No. B.1 – Renewable Energy Improvements Related to Water Management and Delivery

Since all power is metered at the GVPP the improved energy efficiency achieved through implementation of this project can be simply determined by measuring the power produced after the project and comparing to the power produced before the project.

2.2 Performance Measure No. C. Projects that Benefit Endangered Species and/or Critical

The project benefits the 15-Mile Reach of Critical Habitat for the Humpback Chub, Bony Tail, Razor Back Sucker, and Colorado Pike Minnow. The continued operation of the GVPP is critical in maintaining instream flows through this reach. Surplus releases from Green Mountain Reservoir are protected through contracts for delivery to the GVPP whose tailrace is at the beginning of this reach. Scenarios could be studied which could describe river conditions and legal water right "call" conditions had the plant not been operable on an annual basis. This would require coordination with the State Engineer's Office Division 5 Engineer who would provide flow records and potential "call" records for evaluation and analysis.

3 Environmental and Cultural Resources Compliance

- All work related to the turbine/generator rebuild will take place within the existing building.
- The project is located at the beginning of the 15-Mile Reach of Critical Habit for Endangered Fish but all activities will take place within the existing building.
- There are no endangered species or habitat in the work area. No wetlands will be affected.
- The building was completed in 1933 and the rebuild will occur within the existing building. The original casings will be utilized.
- A Cultural Resource Survey has been completed and the State Historic Preservation Office (SHPO) has been consulted. Level II documentation for mitigation has been recommended and a Memorandum of Agreement has been drafted and is in the process of being finalized.

- Reclamation's WCAO is currently drafting NEPA documentation. Realizing that NEPA cannot be predetermined, NEPA work has been nearly completed to the extent that it is certain that a Categorical Exclusion or Environmental Assessment will cover the proposed project. According to Reclamation's WCAO, it anticipated that a final NEPA document will be executed in the spring of 2017.

4 Letters of Support

The District and Association have received letters of support from a variety of agencies, entities, geographic, and hydrographic areas. These letters are included in the Appendix but the entities submitting letters are listed below.

- State Entities
  - Colorado Parks and Wildlife
  - Colorado Division of Water Resources – Division 5
  - State of Utah Department of Natural Resources
  - Wyoming State Engineers Office
- Environmental Entities
  - American Rivers
  - The Nature Conservancy
  - Trout Unlimited
  - Western Resource Advocates
- Domestic Water Providers
  - Denver Water
  - Pueblo Board of Water Works
  - City of Aurora
- Conservancy Districts
  - Tri-County Water Conservancy District
  - Ute Water Conservancy District
  - Southeastern Colorado Water Conservancy District
  - Northern Colorado Water Conservancy District
  - Central Utah Water Conservancy District
- Conservation Districts
  - Colorado River Conservation District
  - Southwestern Water Conservation District
- Irrigation Entities
  - Fire Mountain Canal Company (Hotchkiss)
  - Grand Valley Irrigation Company
  - Palisade Irrigation District
- Other Important Entities
  - Colorado River Basin Roundtable

- Upper Colorado River Endangered Fish Recovery Program
- U.S. Bureau of Reclamation

5 Required Permits and Approvals

The District and Association are currently operating the GVPP under an existing LOPP with Reclamation. In December of 2010 Public Service Company, also known as XCEL Energy, assigned the current lease to the District and Association, consequently an amendment was executed in February of 2011. The LOPP remains in force until January 1, 2031, unless terminated or modified by the contracting parties. The Project Sponsors will obtain and comply with any other local or state permits required.

6 Official Resolution

The District, as the main applicant for the grant, has adopted a Board Resolution as required by the FOA instructions. The Association has drafted a resolution that will serve as their documented financial commitment. Both documents can be found in the Appendix.

7 Project Budget

7.1 Funding Plan and Letters of Commitment

The District and Association are obtaining non-Federal funding for the entire project from a variety of sources including a grant from the Colorado Water Conservation Board (CWCB), a private foundation, CWCB loans, and cash. The turbine/generator rebuild portion of the Total Plant Rehabilitation is estimated at about $2.028M. The District and Association have each been approved for $1.7M loans ($3.4M total) from the Colorado Water Conservation Board (see loan approval letters in the appendix). The loans will serve as interim construction loans for the Total Plant Rehabilitation ($5.2M project) until the District and Association secure final grant funding. The Project Sponsors are seeking $964,862 in funding through this FOA to cover costs associated with rebuilding the turbines and generators. The Project Sponsors have cash available in excess of $3.7M through their GVPP O&M Reserve Account and approved loans, and have commitments for grants from CWCB and a private foundation. Letters of commitment have been promised but were not available at the time of application submittal.

Appropriated Federal Extraordinary Maintenance Funds (XM Funds) have been secured through a Reclamation contract in the amount of $458,000 for use in the

Total Plant Rehabilitation of the GVPP. It was required that a portion of that be used to disassemble hydropower Unit 2 at a cost of $100,000 under the Phase 1 portion of the project. (See Project Schedule, Table 2 Section 1.3.2). This amount has been subtracted from the WEEG portion of the grant application thus bringing the WEEG Project total to $1.929M. The District and Association are seeking 50% of this amount ($964,862) through this WaterSmart Water and Energy Efficiency Grant application.

Available Funding Sources for Total Plant Rehabilitation			
	Federal	Non-Federal	
Sponsors' Cash O&M Account		$300,000	Secured/Available
Colo. Water Conservation Board Grant		$400,000	Committed
Private Foundation Grant		$420,000	Committed
BOR WEEG	$962,864		In Progress
XM Funds	$458,000		Secured/In Use
Sponsors' Loan from CWCB		$3.4M	Secured/Available

Table 6

Pre-award Activities – The table below outlines the costs incurred over the time period from July 1, 2016, to December 2016. These costs were necessary to obtain the loan and grants, legal advice for contract administration, and to complete the Cultural Resource and NEPA work. Since the turbine and generator rebuild comprises 40% of the Total Plant Rehabilitation Cost, the costs that can be allocated to the WEEG Project have been adjusted proportionally. The disassembly of Unit 2 was completed using XM Funds making this portion of the project ineligible for cost-share under the WEEG proposal.

Activity	Total Cost	Cost Allocated to WEEG
Loan and Grant Application acquisition activities	$4,082	$1,633
Legal Fees	$6,903	$2,761
Cultural Resource Inventory	$4,541	$1,816
Disassemble Unit 2	$100,000	$0

Table 7

7.2 Budget Proposal

	GVPP - Turbine & Generator Rebuild BUDGET ITEM DESCRIPTION	COMPUTATION		TOTAL COST
		Price/Unit	Quantity	
	SUPPLIES/MATERIALS-Major types of supplies/materials to be used on this assisted activity			
1	New Runners and Wear Rings - Far East Power Equipment LLC	$ 408,000	2	$ 816,000
2	Additional Runner in lieu of Bond/Guarantee	$ 40,800	1	$ 40,800
3	New Hydraulic Power Unit w/ New Wicket Servos	$ 75,000	1	$ 75,000
4	New Servo Control Assembly	$ 4,000	1	$ 4,000
5	2 New Sump Pumps and Piping	$ 3,750	2	$ 7,500
6	New Cooling Water Filter and Piping	$ 3,750	2	$ 7,500
7	Supply of New Air Compressor and Controls for Braking	$ 4,500	1	$ 4,500
8	Total Supplies and Materials			$ 955,300
	CONTRACTUAL/CONSTRUCTION—Explain any contracts or sub-Agreements that will be awarded, why needed. Explain contractor qualifications and how the contractor will be selected			
9	Riverside Inc from Riverside bid (Includes some materials) Includes disassembly and installation	$ 1,166,714	1	$1,166,714
10	minus air compressor and braking controls (subtract from Riverside bid as it is included as a line item above)	$ (4,500)	1	$ (4,500)
11	minus Cooling water and piping (subtract from Riverside bid as it is included as a line item above)	$ (3,750)	2	$ (7,500)
12	minus sump pumps and piping (subtract from Riverside bid as it is included as a line item above)	$ (3,750)	2	$ (7,500)
13	minus HPU (subtract from Riverside bid as it is included as a line item above)	$ (75,000)	1	$ (75,000)
14	minus servo assembly (subtract from Riverside bid as it is included as a line item above)	$ (4,000)	1	$ (4,000)
15	Total Riverside Disassembly and Installation			**$1,068,214**
	Pre-Award Costs Incurred for Project Purposes after July 1, 2016			
16	40% of Loan and Grant Application Costs (Crabtree Water Consulting)	$ 1,633	1	$ 1,633
17	40% of Legal Fees	$ 2,761	1	$ 2,761
18	40% of Cultural Resource Inventory (Alpine Archeologist)	$ 1,816	1	$ 1,816
19	Total Other Contracting			**$ 6,210**
20	**TOTAL ESTIMATED PROJECT COST**			$2,029,724
	Project Work Completed In Project Phase 1 & Included in Riverside Bid, But Paid with Federal Extraordinary Maintenace (XM) Funds. Therefore must be excluded from			
21	Disassembly of Unit 2 and Measurements Completed	$ (100,000)	1	$ (100,000)
22	**Total Estimated WEEG Project Cost**			$1,929,724

Table 8

7.3 Budget Narrative

Lines 1 through 7 of the Proposed Budget, Table 8, comprise the parts needed to rebuild the turbine and generators of the GVPP. Lines 1 is comprised of the two new runners and wear rings. Line 2 is comprised of a third runner that will serve as a standby unit. In lieu of the purchase of a bond/guarantee from the runner fabricator it was determined that a third runner could be provided for the same cost.

Line 9 comprises the work performed by the subcontractor Riverside Inc. who has been retained to supply and install the parts and materials listed in Lines 1 through 7. See Riverside Quote below, Figure 4. Note that some supplies are listed in the Riverside quote as being supplied under the total cost of $1,166,714. These same supplies are listed in Lines 1 through 7 therefore they are subtracted off of the Riverside quote in **Lines 10 through 14** bringing the total installation cost to $1,068,214 (**Line 15**).

Pre-award contract costs incurred after July 1, 2016, are listed in **Lines 16 through 18.** These costs are described in Section 7.1, above and include pre-award environmental compliance and cultural resource inventory costs. Due to the nature and importance of the project and the fact the GVPP is a Reclamation owned facility, Reclamation has performed the environmental review activities at non-reimbursable cost.

As mentioned in Section 7.1, appropriated Federal Extraordinary Maintenance Funds (XM Funds) have been secured through a Reclamation contract in the amount of $458,000 for use in the Total Plant Rehabilitation of the GVPP. It was required that a portion of that be used to disassemble hydropower Unit 2 at a cost of $100,000 under the Phase 1 portion of the project. (See Project Schedule, Table 2 Section 1.3.2). This task was included in Riverside Inc.'s quote. It was undertaken and completed by Riverside Inc. in 2016. This amount has been subtracted from the WEEG portion of the grant application on **Line 21** thus bringing the WEEG Project total to $1.929M. The balance of the $458,000 will be used for other tasks related to the Total Plant Rehabilitation of the GVPP but not for any other tasks identified under this WEEG Project Application.

P.O. Box 720 Parma, Idaho 83660
Office 208.722.6731 Fax 208.722.6736
Email riverside@rsicorp.net

GRAND VALLEY HYDRO –COLORADO

7/13/2015

Cost estimate

1. Disassembly, transport Turbine/Generator/components to Parma
2. Rewind Stator 4160volt/1944kw with nameplate 1750kw with .90 power factor
3. Rewind Rotor class F/H
4. Add new RTD's to stator, oil, bearings
5. Install New Stainless Runner (install only)
6. Install New Stainless Wear Rings (install only)
7. Install New Head Cover and turbine bearings (install only)
8. Couple/align/dowel new turbine shaft to existing shaft
9. Supply/Install New Wicket Servo
10. Supply/Install new servo control assy.
11. Supply/install single HPU that will control both units
12. Rewind/Rebuild existing vertical DC exciters
13. Turn slip rings and commutators and install new brushes
14. Rebuild/Replace all generator bearings
15. Supply/install 2 new sump pumps and piping
16. Supply/install New cooling water filter and piping
17. Rebuild generator braking cylinders
18. Supply/install New air compressor and controls for braking
19. Crane for outside powerhouse included
20. Transport, Re-install, paint
21. Test/commission

Note: Price includes Crane time for outside of power house loading/unloading

Price per unit----------$583,357.00

Total for both Units----------$1,166,714.00

Note: This price is based on 160 day schedule

Figure 6

8 APPENDIX - Attachments

8.1 Muni-Rec Contract

8.2 Letters of Support

8.3 Board Resolution

8.4 Letters of Financial Commitment - CWCB Loan Approval, GVWUA

APPENDIX – Attachments

Muni-Rec Contract

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Colorado-Big Thompson Project, Colorado

MUNICIPAL RECREATION AGREEMENT AMONG THE UNITED STATES, THE TOWN OF PALISADE, THE CITY OF GRAND JUNCTION, and THE CITY OF FRUITA

THIS MUNICIPAL RECREATION AGREEMENT: hereinafter referred to as the Agreement, made this 2nd day of APRIL, 20 15, pursuant to the Act of June 17, 1902 (32 Stat. 388; 43 USC §391), and all Acts amendatory thereof or supplementary thereto, and more particularly pursuant to the Act of August 9, 1937 (50 Stat. 564, 595), which incorporates Senate Document 80, 75th Congress; and Section 9 (c)(2) of the Act of August 4, 1939 (53 Stat. 1187; 43 USC §485(h)) as amended and supplemented; among the UNITED STATES OF AMERICA, hereinafter referred to as the "United States," represented by the Contracting Officer executing this Agreement; and the TOWN OF PALISADE, the CITY OF GRAND JUNCTION, and the CITY OF FRUITA, hereinafter referred to as the "Municipalities" or the "Contractors." The United States and the Municipalities are some sometimes referred to individually as "Party" and collectively as the "Parties."

WITNESSETH:

EXPLANATORY RECITALS

The following statements are made in explanation:

a. WHEREAS, Green Mountain Dam and Reservoir (Reservoir) were constructed as a feature of the Colorado-Big Thompson (C-BT) Project as recommended by the Secretary of the Interior and approved by the President on December 21, 1937, pursuant to Section 4 of the Act of June 25, 1910 (36 Stat. 835; 43 USC §§400, 413), and Subsection B of Section 4 of the Fact Finders' Act (Act of December 5, 1924 (43 Stat. 672, 702; 43 USC §412)). Green Mountain Reservoir is operated and maintained by the United States in accordance with Senate Document 80; the Act of August 9, 1937 (50 Stat. 564, 595), as decreed in the Consolidated Cases (Civil Action Nos. 2782, 5016, and 5017, and amendments thereof, United States District Court for the District of Colorado; the Operating Policy (Operating Policy) for Green Mountain Reservoir as published in the Federal Register on December 22, 1983, which became effective January 23, 1984, and as amended September 3, 1987, as published in the Federal Register on September 11, 1987, and the stipulated settlement of the Orchard Mesa Check Case (Case No. 91CW247, District Court Water Division No. 5, State of Colorado). Green Mountain Reservoir was authorized to provide water for the purposes specified in Senate Document 80; and

b. WHEREAS, prior to adoption of the Operating Policy, the Reservoir was historically operated to release water for replacement of out-of-priority depletions by the C-BT Project and for power generation purposes under the guidance of Senate Document 80. During the early 1980's, the Bureau of Reclamation was approached by West Slope water users to provide firm contract water from the Reservoir. Years of negotiation resulted in the adoption of the Operating Policy by Reclamation that provides for releases of water from the power pool to fully satisfy the water needs of irrigation and domestic users in western Colorado from water rights perfected by use on or before October 15, 1977. These water rights would have otherwise been curtailed in whole or in part by a legal call on the river. The amount of the releases is not to exceed 66,000 acre-feet (AF) which the Operating Policy states are adequate to satisfy irrigation and domestic uses so perfected. This 66,000 AF allocation from the power pool is commonly known as the Historic User Pool (HUP); and

c. WHEREAS, in addition to providing contract water, paragraph 8 of the Operating Policy provides that "Any stored water in excess thereof [i.e. Not required for other purposes listed in paragraphs 2 and 4 of the Operating Policy] may be disposed of" by agreement or contract; and

d. WHEREAS, in the early 1990's Reclamation's Eastern Colorado Area Office and Western Colorado Area Office became involved in the settlement of the Orchard Mesa Check Case on Reclamation's Grand Valley Project. As part of the stipulated settlement for the Orchard Mesa Check Case the Green Mountain Reservoir HUP Operating Criteria (Operating Criteria) was developed. Said Operating Criteria define specific terms and conditions for declaring and managing releases of water surplus to the needs of HUP beneficiaries; and

e. WHEREAS, paragraph 5.a. of the Stipulation and Agreement for Orchard Mesa Check Case states "HUP surplus water contracts will provide that HUP surplus water will be delivered to and through the Grand Valley Power Plant to the extent that there is capacity in the power canal and water is needed to produce power at the Grand Valley Power Plant, and that HUP surplus water contracts may provide for delivery of HUP surplus water to other locations and facilities to the extent that there is not capacity in the power canal or that water is not needed to produce power at the Grand Valley Power Plant"; and

f. WHEREAS, on July 14, 1999, Reclamation executed Agreement Number 9-07-60-W0769 (Check Case Agreement) with the Public Service Company of Colorado, the Orchard Mesa Irrigation District, and the Grand Valley Water Users Association to deliver the surplus water on an if-and-when available basis to generate hydroelectric power at the Grand Valley Power Plant. This Check Case Agreement satisfies the requirements in Paragraph 5.a. of the Stipulation and Agreement that require surplus water to be delivered to the Grand Valley Power Plant; and

g. WHEREAS, the Parties desire to satisfy the requirements in the Stipulation and Agreement that allows agreements/contracts to be executed to deliver surplus if-and-when water not needed to produce power at the Grand Valley Power Plant; and

h. WHEREAS, the Colorado River Recovery Program (Recovery Program) was established and signed in 1988 by Reclamation, Western Area Power Administration, the U.S. Fish and Wildlife Service (Service), and the States of Colorado, Utah, and Wyoming for the recovery of four endangered native fish species on the Upper Colorado River; and

i. WHEREAS, Reclamation is a signatory to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado Basin (RIP). As a signatory to the RIP, Reclamation agreed within its discretion to assist with recovery of these endangered fish; and

j. WHEREAS, in 1999 the Service issued a Final Programmatic Biological Opinion (PBO) covering the operations and water depletions of existing projects, including Reclamation projects. The PBO also covers funding and implementation of Recovery Program Actions in the Upper Colorado River above the Gunnison River. One of the action items listed in the PBO and in the Recovery Implementation Program Recovery Action Plan (RIPRAP) is the protection and delivery of the HUP Surplus Water to the reach of the Colorado River in the Grand Valley from its confluence with the Gunnison River upstream 15 miles to the Grand Valley Irrigation Company diversion dam (15-Mile Reach) for the endangered fish by execution of an Agreement; and

k. WHEREAS, the 15-Mile Reach has been designated by the RIP as critical habitat for two of the endangered fish covered by the RIP. The Service has established annual target flows under the Colorado River Recovery Program for the 15-Mile Reach of the Colorado River to assist with recovery of endangered fishes; and

l. WHEREAS, the Municipalities are duly formed municipal entities under the laws of the State of Colorado; and

m. WHEREAS, the Municipalities are working together to improve and planning to further improve the Colorado River between the Town of Palisade and the City of Fruita, and the Municipalities are agreeable to entering into this Agreement with Reclamation to enhance recreational uses and indirectly enhance flows for the endangered fish in the Colorado River between the existing locations of the Grand Valley Irrigation Company Diversion Dam to the Loma Boat Ramp; and

n. WHEREAS, the Municipalities understand that, while enhanced flows are made available for municipal recreational purposes they are also supportive of the mutual benefits to other purposes including endangered fish species habitat enhancement; and

o. WHEREAS, the United States recognizes the importance of making water available for Municipal Recreation purposes and the commensurate benefit to endangered fish species from the enhanced flows allowed under this Agreement; and

p. WHEREAS, there is support for enhancement of recreational uses in the 15-Mile Reach of the Colorado River; and

q. WHEREAS, the Municipalities have executed previous agreements with the United States which provided surplus water for non-consumptive recreation purposes in the Grand Valley for the years 2001 through 2014; and

r. WHEREAS, this agreement will continue to provide nonconsumptive If and When Water from Green Mountain Reservoir to the 15-Mile Reach water into the future; and

s. WHEREAS, pursuant to Colorado Revised Statuses (C.R.S.), Sections 37-92-301 and 501, the State Engineer and the Division Engineer are responsible for the administration and distribution of the waters of the State. Pursuant to Section 37-92-102(3), the Parties may call upon the Division 5 Engineer, Colorado State Division of Water Resources, to administer the delivery of If and When Water provided through this Agreement from Green Mountain Reservoir for non-consumptive municipal recreation uses in and adjacent to the 15-Mile Reach.

NOW, THEREFORE, in consideration of the foregoing recitals and mutual covenants hereinafter set forth, the Parties hereto agree as follows:

1. DEFINITIONS

Where used herein, unless specifically expressed otherwise or obviously inconsistent with the intent herein, the term:

A. "Contracting Officer" shall mean the Secretary of the Interior or a duly authorized representative.

B. "Division 5 Engineer" shall mean the Colorado State Division of Water Resources, Water Division 5, Division Engineer.

C. "HUP" shall mean the so-called "Historic Users Pool" defined as an allocation of up to 66,000 AF of water from the Green Mountain Reservoir power pool, as described in paragraphs 2 and 3 of the Operating Policy.

D. "HUP Beneficiaries" shall mean those persons or entities for whose benefit releases are made from the HUP pursuant to the Operating Policy.

E. "HUP Surplus Water" shall mean the amount of HUP water which, in accordance with paragraph 8 of the Operating Policy, is included in that portion of the stored water in the Green Mountain Reservoir in excess of that necessary to meet the objectives of paragraphs 2 and 4 of the Operating Policy, and which is determined pursuant to the procedures in the Operating Criteria to be available for releases to be made to meet the replacement and direct delivery needs of HUP beneficiaries. This water shall not exceed 66,000 AF annually.

F. "If and When Water" shall mean HUP Surplus Water provided pursuant to this Agreement on an interruptible basis if and when all of the following criteria are met: (1) if Reclamation, in consultation with other Managing Entities, determines that there is HUP Surplus

Water: and (2) if the needs for water for the purpose of generating hydroelectric power at the Grand Valley Power Plant have been satisfied.

G. "Managing Entities" shall mean Reclamation, and the following entities with whom Reclamation consults in managing releases of HUP Surplus water pursuant to the Operating Criteria: the Grand Valley Water Users Association; Orchard Mesa Irrigation District; Grand Valley Irrigation Company; Colorado Division of Water Resources; Colorado Water Conservation Board; and the Service.

H. "Operating Criteria" shall mean the Green Mountain Operating Criteria (Exhibit D to the Stipulation and Agreement), a copy of which is attached hereto as Exhibit A.

I. "Operating Policy" shall mean the Operating Policy for the Green Mountain Reservoir, C-BT Project, Colorado (Volume 48, No. 247, as published in the Federal Register December 22, 1983; as amended in Volume 52, No. 176, Federal Register September11, 1987).

J. "Reservoir" shall mean the dam, reservoir and related facilities known as "Green Mountain Reservoir" as constructed and operated on the Blue River, a tributary of the Colorado River, in north-central Colorado, as a feature of the C-BT Project.

K. "Stipulation and Agreement" shall mean the Stipulation and Agreement entered into among the Parties in the Orchard Mesa Check Case (Case No. 91 CW247, District Court, Water Division No. 5, State of Colorado), a copy of which is attached hereto as Exhibit B.

Any other terms used within this Agreement which are defined in either the Stipulation and Agreement or the Operating Criteria shall have the meaning ascribed to them in those documents.

2. TERM OF MUNICIPAL RECREATION AGREEMENT

A. This Agreement becomes effective on the date executed and shall remain in effect through December 31, 2054, unless terminated sooner in accordance with the provisions of Article 8, or amended pursuant to Article 7, below.

B. The Municipalities will have the right to request that this Agreement be renewed upon mutually agreeable terms and conditions based on Federal Reclamation laws and policies in effect at the time.

3. PROVISION OF WATER AND RELEASE SCHEDULE

A. Water provided pursuant to this Agreement shall be If and When Water as defined in Article 1.G. above.

B. The amount of HUP Surplus Water will be determined by Reclamation in consultation with the Managing Entities following the procedures set forth in the Operating Criteria.

C. In accordance with Section 5.a. of the Stipulation and Agreement, HUP Surplus Water will first be delivered to the Grand Valley Power Plant. To the extent there is HUP Surplus Water in excess of the existing capacity and needs of the Grand Valley Power Plant, HUP Surplus Water may be released from the Reservoir pursuant to this Agreement.

D. Releases made pursuant to this Agreement shall not result in any water bypassing the Green Mountain Power Plant except that which may be released during periods when the Power Plant is not operating or released by exchange from other reservoirs.

E. Reclamation will inform the Municipalities of scheduled meetings of the Managing Entities so they may attend in person, by telephone, or otherwise and provide comment during the discussions.

F. The water will only be provided if HUP beneficiaries will not be impacted.

4. WATER SERVICE CHARGES

The release of If and When Water pursuant to this Agreement is a mutual benefit to the Parties, derived through cooperatively working with the Service to attempt to meet the Service's target flows for the 15-Mile Reach to assist with the recovery of the endangered fish and the non-consumptive municipal recreational benefits to the Municipalities. The Contracting Officer will not charge the Municipalities for the If and When Water made available pursuant to this Agreement.

5. MEASUREMENT AND DELIVERY

A. The delivery of If and When Water pursuant to this Agreement will be made into the Blue River at the outlet works of the Reservoir or by exchange with other sources of supply. All such exchanges shall be in accordance with state and Federal laws and regulations including, if required, approval by the Division 5 Engineer.

B. All delivery of If and When Water into the Blue River shall be subject to the limitations of the outlet capacity of the Reservoir. All If and When Water delivered under this Agreement shall be measured at the outlet works of the Reservoir from which it is provided with equipment furnished, operated, and maintained by the United States. The United States shall not be responsible for the control, carriage, use, handling, or distribution of water delivered beyond the outlet works of the Reservoir or other point of release. This Agreement provides If and When Water, and in no event shall any liability accrue against the United States or any of its officers, agents or employees for any damage, direct or indirect, arising from shortage of water service on account of operation, drought, or any other causes.

C. It is understood that all If and When Water released by Reclamation pursuant to this Agreement, less transit losses, as measured at the Palisade Gauge, is to be delivered and protected by the Division 5 Engineer to and through the reach of the Colorado River extending from the existing locations of the Grand Valley Irrigation Company Diversion Dam (located in

the NE1/4 of the NE1/4 of Section 3, T1S, R2E, Ute Principal Meridian) to the Loma Boat Ramp (located in the SW1/4 of the NW1/4 of Section 10, T1N, R3W, Ute Principal Meridian).

6. USE OF WATER

A. If and When Water made available pursuant to this Agreement shall be used by the Municipalities for non-consumptive municipal recreation purposes.

B. If and When Water made available pursuant to this Agreement shall not be diverted by the Municipalities from the Colorado River.

C. Water made available pursuant to this Agreement does not constitute a firm supply, but rather an if and when supply. It is explicitly recognized that there will be times when If and When Water is not available due to hydrologic or other conditions as determined by Reclamation, in consultation with the Managing Entities. Reclamation will coordinate the timing and amount of releases with the Service.

D. The Municipalities agree that the provision of this water is if and when and shall not be used to obtain direct economic benefits from the release and delivery of this water for municipal recreation purposes. Instead, the benefits to the Municipalities would result from incremental additional visitations to recreation areas along the Colorado River. Each of the Municipalities has or will be developing recreation amenities along the Colorado River.

E. No lease, sale, donation, transfer, exchange, or other disposition of any of the water provided pursuant to this Agreement may be made.

7. AMENDMENT

This Agreement may be amended only by a fully executed written agreement by the Parties. Any request to amend this Agreement shall be given in the same manner as provided in Article 10, below.

8. TERMINATION

A. The Contracting Officer may terminate this Agreement at any time upon providing 60 calendar days notice.

B. The Municipalities collectively may terminate this Agreement at any time upon providing 60 calendar days notice.

C. Any one of the Municipalities may individually withdraw from this Agreement at any time upon providing 60 calendar days notice. Upon such 60 day notice by a municipality, the Agreement between the United States and such municipality shall terminate as to that municipality. Such termination shall not be considered an amendment of the Agreement under Article 8. If one or two of those municipalities so withdraw, this Agreement shall remain in full force and effect as to those Municipalities remaining.

9. SEVERABILITY

In the event that any one or more of the provisions contained herein shall, for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, but this Agreement shall be construed as if such invalid, illegal or unenforceable provisions had never been contained herein, unless the deletion of such provision or provisions would result in such a material change so as to cause fundamental benefits afforded the Parties by this Agreement to become unavailable or materially altered.

STANDARD ARTICLES

10. NOTICES

Any notice, demand, or request authorized or required by this Contract shall be deemed to have been given, on behalf of the Contractors, when mailed, postage prepaid, or delivered to the:

Regional Director
Great Plains Region
Bureau of Reclamation
P.O. Box 36900
Billings, MT 59107-6900

and on behalf of the United States, when mailed, postage prepaid, or delivered to the of the Contractors:

Town of Palisade
P.O. Box 128
Palisade, CO 81526-0128

City of Grand Junction
Attn: Utilities Director
250 N. Fifth St.
Grand Junction, CO 81501

City of Fruita
325 E. Aspen
Fruita, CO 81521

The designation of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

11. CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS

The expenditure or advance of any money or the performance of any obligation of the United States under this Contract shall be contingent upon appropriation or allotment of funds. Absence of appropriation or allotment of funds shall not relieve the Contractors from any obligations under this Contract. No liability shall accrue to the United States in case funds are not appropriated or allotted.

12. OFFICIALS NOT TO BENEFIT

No Member of or Delegate to the Congress, Resident Commissioner, or official of the Contractors shall benefit from this Contract other than as a water user or landowner in the same manner as other water users or landowners.

13. CHANGES IN CONTRACTORS' ORGANIZATION

While this Contract is in effect, no change may be made in the Contractors' organization, which may affect the respective rights, obligations, privileges, and duties of either the United States or the Contractors under this Contract including, but not limited to, dissolution, consolidation, or merger, except upon the Contracting Officer's written consent.

14. ASSIGNMENT LIMITED – SUCCESSORS AND ASSIGNORS OBLIGATED

The provisions of this Contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this Contract or any right or interest therein by either party shall be valid until approved in writing by the other party.

15. BOOKS, RECORDS, AND REPORTS

Reports shall be furnished to the Contracting Officer in such form and on such date or dates as the Contracting Officer may require. Subject to applicable Federal laws and regulations, each party to this Contract shall have the right during office hours to examine and make copies of the other party's books and records relating to matters covered by this Contract.

16. RULES, REGULATIONS, AND DETERMINATIONS

A. The Parties agree that the delivery of water or the use of Federal facilities pursuant to this Contract is subject to Federal reclamation law, as amended and supplemented, and the rules and regulations promulgated by the Secretary of the Interior under Federal reclamation law.

B. The Contracting Officer shall have the right to make determinations necessary to administer this Contract that are consistent with its provisions, the laws of the United States and

the State of Colorado, and the rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Contractors.

17. PROTECTION OF WATER AND AIR QUALITY

A. Project facilities used to make available and deliver water to the Contractors shall be operated and maintained in the most practical manner to maintain the quality of the water at the highest level possible as determined by the Contracting Officer: *Provided, That* the United States does not warrant the quality of the water delivered to the Contractors and is under no obligation to furnish or construct water treatment facilities to maintain or improve the quality of water delivered to the Contractors.

B. The Contractors shall comply with all applicable water and air pollution laws and regulations of the United States and the State of Colorado; and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities necessary for the delivery of water by the Contractors; and shall be responsible for compliance with all Federal, State, and local water quality standards applicable to surface and subsurface drainage and/or discharges generated through the use of Federal or Contractors facilities or project water provided by the Contractors within the Contractors' Project Water Service Area.

C. This article shall not affect or alter any legal obligations of the Secretary to provide drainage or other discharge services.

18. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, the Contractors agree as follows:

A. The Contractors will not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, or national origin. The Contractors will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, disability, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractors agree to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

B. The Contractors will, in all solicitations or advertisements for employees placed by or on behalf of the Contractors, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, disability, or national origin.

C. The Contractors will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractors' commitments under section 202 of Executive Order 11246 of September 24, 1965

(EO 11246), and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

D. The Contractors will comply with all provisions of EO 11246, and of the rules, regulations, and relevant orders of the Secretary of Labor.

E. The Contractors will furnish all information and reports required by EO 11246, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Contracting Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

F. In the event of the Contractors' noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractors may be declared ineligible for further Government contracts in accordance with procedures authorized in EO 11246, and such other sanctions may be imposed and remedies invoked as provided in EO 11246 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

G. The Contractors will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of EO 11246, so that such provisions will be binding upon each subcontractor or vendor. The Contractors will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event the Contractors becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractors may request that the United States enter into such litigation to protect the interests of the United States.

19. COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

A. The Contractors shall comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352; 42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (Pub. L. 93-112, Title V, as amended; 29 U.S.C. § 791, et seq.), the Age Discrimination Act of 1975 (Pub. L. 94-135, Title III; 42 U.S.C. § 6101, et seq.), Title II of the Americans with Disabilities Act of 1990 (Pub. L. 101-336; 42 U.S.C. § 12131, et seq.), and any other applicable civil rights laws, and with the applicable implementing regulations and any guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

B. These statutes prohibit any person in the United States from being excluded from participation in, being denied the benefits of, or being otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this Contract, the Contractors agree to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

C. The Contractors make this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractors by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractors recognize and agree that such Federal assistance will be extended in reliance on the representations and agreements made in this article and that the United States reserves the right to seek judicial enforcement thereof.

D. Complaints of discrimination against the Contractors shall be investigated by the Contracting Officer's Office of Civil Rights.

20. CONSTRAINTS ON THE AVAILABILITY OF WATER

A. In its operation of the Project, the Contracting Officer will use all reasonable means to guard against a condition of shortage in the quantity of water to be made available to the Contractors pursuant to this Contract. In the event the Contracting Officer determines that a condition of shortage appears probable, the Contracting Officer will notify the Contractors of said determination as soon as practicable.

B. If there is a condition of shortage because of errors in physical operations of the Project, drought, other physical causes beyond the control of the Contracting Officer or actions taken by the Contracting Officer to meet current and future legal obligations, then no liability shall accrue against the United States or any of its officers, agents, or employees for any damage, direct or indirect, arising therefrom.

IN WITNESS WHEREOF, the Parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

Michael J. Ryan
Regional Director

For

DUPLICATE ORIGINAL

Agreement No. 14XX650133

TOWN OF PALISADE

By: Kirk T. Hamrat
Title: Mayor

ATTEST:

Lindsay Curtwood
Secretary

(seal)

DUPLICATE ORIGINAL

Agreement No. 14XX650133

CITY OF GRAND JUNCTION

By: Bunfis Norris
Title: Mayor

ATTEST:

Stephanie Tuin (seal)
Secretary

DUPLICATE ORIGINAL

Agreement No. 14XX650133

CITY OF FRUITA

By: _____
Title: Mayor

ATTEST:

_____ (seal)
~~Secretary~~ CITY CLERK
MARGARET SELL

Letters of Support

American Rivers
Rivers Connect Us®

December 30, 2016

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

RE: Grand Valley Water Users Association and Orchard Mesa Irrigation District Water and Energy Efficiency Grant Application.

To Whom It May Concern:

American Rivers strongly supports the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. This grant will allow the Association and District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure it's continued operation.

The plant is located at the beginning of the Colorado River's 15 Mile Reach of Critical Habitat for Endangered Fish through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river. It is an important component of the agreement and efforts to help recover these endangered fish. Sustained operation of the GVPP is vitally important for the success of the recovery program. It is also vitally important for general water management and river flow protections on the Western Slope of Colorado.

We appreciate your consideration of this request and look forward to a favorable response.

Sincerely,

Ken Neubecker, Associate Director
American Rivers Colorado River Basin Program
24 S Meadow View Ct.
Glenwood Springs, CO 81601
(970) 230-9300
Kneubecker@americanrivers.org

CENTRAL UTAH WATER
CONSERVANCY DISTRICT

355 W. University Parkway
Orem, UT 84058-7303
801.226.7100
www.cuwcd.com

January 10, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

The Central Utah Water Conservancy District is pleased to support the application to Reclamation by the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to rebuild the turbines and generators in the Grand Valley Power Plant (GVPP) and allow its continued operation. The grant will support efforts by the District and the Association to effectively manage water and energy and facilitate ongoing environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated as critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP ensures that a portion of water continues to flow through the Grand Valley. Combined with other significant efforts by Reclamation, water users, and the state of Colorado flow is provided through this reach as part of the Upper Colorado River Endangered Fish Recovery Program to benefit the federally endangered fish.

The sustained operation of the GVPP is vitally important for the success of the recovery of endangered fish species in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Michael Mills

Michael D. Mills
Senior Staff Biologist

THE COLORADO BASIN ROUNDTABLE
C/O P.O. BOX 1120
GLENWOOD SPRINGS, COLORADO
81602

January 2, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

To Whom It May Concern:

The Colorado Basin Roundtable, a Colorado-legislature created water planning group for the six West Slope of Colorado counties flanking the mainstem of the Colorado River, is pleased to support the Grand Valley Water Users Association (Association) and the Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant.

This project is emblematic of the priorities we have identified in our Basin Implementation Plan, a sub-chapter of the Colorado Water Plan – namely protection of healthy streams and their wildlife, sustaining of agriculture and protection of predictable water rights administration of the Colorado River.

Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation – and protection of very important non-consumptive water rights that guarantee flows downstream of the plant. The plant is located at the beginning of the Colorado River's 15 Mile Reach of Critical Habitat for Endangered Fish through the Grand Valley. The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Jim Pokrandt
Chair, Colorado Basin Roundtable

COLORADO
Parks and Wildlife
Department of Natural Resources

NW Region Office
711 Independent Ave.
Grand Junction, CO 81505
P 970.255.6100 | F 970.255.6111

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

December 29, 2016

To Whom It May Concern:

Colorado Parks and Wildlife is pleased to support the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in the Grand Valley Power Plant (GVPP) and ensure the GVPP's continued operation. The GVPP is located at the beginning of the 15-mile reach of critical habitat for endangered fish of the Colorado River through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river. The sustained operation of the GVPP is important for efforts aimed at recovery of the endangered fishes in the Colorado River, and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration.

Sincerely,

Ron D Velarde

Ron D. Velarde
NW Region Manager

Colorado River District

Protecting Western Colorado Water Since 1937

December 30, 2016

Mr. Josh German
U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

RE: Grand Valley Power Plant Application, Water and Energy Efficiency Grant
Dear Mr. German:

The Colorado River District strongly supports the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) grant request application for a Water and Energy Efficiency Grant to rebuild the turbines and generators in the Grand Valley Power Plant (GVPP), thereby ensuring its continued operation and the allied Colorado River flow benefits it provides. Both the Association and District are operators of Reclamation's Grand Valley Project. The Association and the District operate the GVPP under a Lease of Power Privilege with Reclamation. Awarding this grant will support effective water and energy management and environmental stewardship in the upper Colorado River basin.

The GVPP is located at the beginning of the 15 Mile Reach of the Colorado River, which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP ensures an essential flow through the Grand Valley. Along with other efforts by Reclamation, water users, and the state of Colorado these flows benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. This Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vital for the success of the recovery of the endangered fishes in the Colorado River and overall water management on the mainstem of the Colorado River in Colorado.

The River District strongly supports this project and respectfully encourages your favorable consideration of this request.

Sincerely,

R. Eric Kuhn,
General Manager

201 Centennial Street / PO Box 1120 • Glenwood Springs, CO 81602
(970) 945-8522 • (970) 945-8799 Fax
www.ColoradoRiverDistrict.org

DENVER WATER

1600 West 12th Ave
Denver, CO 80204-3412
303.628.6000
denverwater.org

January 3, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

Denver Water is pleased to support the application to the Bureau of Reclamation (BOR) by the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow these two entities to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) to ensure its continued operation. The grant will support efforts by the Association and District to continue their effective water and energy management and environmental stewardship.

The GVPP is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for several federally listed endangered fish. The non-consumptive water right of the GVPP provides an essential component of flow through the Grand Valley, along with other significant efforts by the BOR, water users, and the state of Colorado to provide water flows that provide important benefits to the endangered fish species through this reach as part of the Upper Colorado River Endangered Fish Recovery Program (Program). This Program provides water for endangered fish in accordance with state water law, interstate compacts, and BOR project authorizations.

The ongoing and sustained operation of the GVPP is vitally important for the continued success and recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

Denver Water supports this project and would appreciate your thoughtful consideration of this request.

Sincerely,

Kevin Urie
Environmental Scientist/Planner

COLORADO
Division of Water Resources
Department of Natural Resources
Water Division 5 · Main Office
P.O. Box 396
Glenwood Springs, CO 81602

December 28, 2016

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

To Whom It May Concern:

I am the Division Engineer for Water Division 5, Colorado Water Division of Water Resources. I support the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The plant is located at the beginning of the Colorado River's 15 Mile Reach of Critical Habitat for Endangered Fish through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river. The water right is also among the rights that comprise the "Cameo Demand". Water administration of the Colorado River, development strategies for new water rights, and many negotiated settlements have grown up around the Cameo Demand as it is presently structured and has been for decades. Among settlements is the settlement of the Orchard Mesa Check case, which is valuable to the endangered fish recovery program, the water users in the Grand Valley, and water users upstream and subject curtailment to mitigate shortages of water supply in the Grand Valley. The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado. With continued operation of the power plant upstream reservoir storage intended for the power plant will be delivered when they most benefit the endangered fish.

Because sustained operation of the power plant and diversion pursuant to the power plant's water rights is an important tool in the endangered fish recovery program, and for the stability of water administration in our basin, the Colorado Division of Water Resources supports this project and appreciates your consideration of this request.

Sincerely,

Alan C Martellaro, PE
Division Engineer, Water Division 5

FIRE MOUNTAIN CANAL & RESERVOIR CO.
314 WEST BRIDGE STREET
P.O. BOX 543
HOTCHKISS, CO 81419
(970) 872-2223
FAX (970) 872-3667
firemountaincanal.com

January 6, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

Fire Mountain Canal & Reservoir Company is pleased to support the application to Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP ensures provides an essential component of flow through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Steve Fletcher, Manager
Fire Mountain Canal &
Reservoir Company

Robert Raymond - President
Judy Lopez - Secretary - Treasurer
Phillip B. Bertrand - Superintendent

Telephone (970) 242-2762
FAX (970) 242-2770

THE GRAND VALLEY IRRIGATION COMPANY
688 - 26 Road
Grand Junction, Colorado
81506

Owns and Operates
THE GRAND VALLEY CANAL

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

January 04, 2017

To Whom It May Concern:

The Grand Valley Irrigation Company (GVIC) is pleased to support the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure it's continued operation. The plant is located at the beginning of the Colorado River's15 Mile Reach of Critical Habitat for Endangered Fish through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of the Colorado River. The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado and providing water for the Compact recipient states. The GVPP is also a critical alternative supplemental source of power production for our regional electric service provider.

We support this project and appreciate your consideration of this request.

Sincerely,

Phil Bertrand

Phil Bertrand
Superintendent GVIC

Aurora Water

City of Aurora

Water Resources
15151 E. Alameda Parkway, Ste. 3600
Aurora, Colorado 80012
303.739.7370

Worth Discovering • auroragov.org

December 28, 2016

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

Aurora Water is pleased to support the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) application for a Water and Energy Efficiency Grant. The grant funding will allow rebuilding of the turbines and generators at the Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The GVPP is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP provides an essential component of flow through the Grand Valley. This flow, along with other significant efforts by Reclamation, water users, and the state of Colorado, will benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River which is beneficial to the entire state of Colorado and all its citizens. Aurora Water supports this project and appreciates your consideration of the Association and District's grant request.

Sincerely,

Marshall P. Brown
Director, Aurora Water

Northern Water
Northern Colorado Water Conservancy District
220 Water Avenue Berthoud, Colorado 80513
Phone 1-800-369-7246 • www.northernwater.org

December 28, 2016

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

Northern Water is pleased to support the application to the U.S. Bureau of Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP ensures provides an essential component of flow through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Don Carlson
Assistant General Manager

eal
cc: Dan Crabtree, dan.crabtree.pe@gmail.com
Tom Pitts, tpitts@waterconsult.com

PALISADE
IRRIGATION DISTRICT
777 35 3/10 Road, Palisade, CO 81526
970-464-4700 / Fax 970-464-1337

January 3, 2017

Bureau of Reclamation
Attn: Mr. Josh German
Application Review Committee
Water and Energy Efficiency Grants

Dear Mr. German,

The Palisade Irrigation District is pleased to voice our support of the Grand Valley Water Users Association's (GVWUA) and Orchard Mesa Irrigation District's (OMID) application to the WaterSMART: Water and Energy Efficiency Grants for FY 2017 for the rehabilitation of the Grand Valley Power Plant turbines and generators. Without this plant in operation the instream flows in the Colorado River could be compromised because it's non-consumptive water right is critical in shepherding water to the 15 Mile Reach of endangered fish habitat.

The GVWUA and OMID have worked diligently since taking over the lease of power privilege to bring this plant up to an operable condition after years of neglect by the previous lease holder.

The continued operation of the Grand Valley Power plant is critical to the success of the recovery program and for others to enter into water banking agreements in order to convey water to Lake Powell for that purpose. The Palisade Irrigation District strongly supports this project and encourages Reclamation to look favorably upon this funding request.

Sincerely,

/Dan Crabtree/, Superintendent
Palisade Irrigation District

Office – PID – date\Office\Letterhead - 2015

Board of Water Works
of Pueblo, Colorado
P.O. Box 400 - Pueblo, CO 81002-400 - 719/584-0250 - www.pueblowater.org

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

January 3, 2017

To Whom It May Concern:

Pueblo Water is the supplier of municipal water to a population of over 110,000 customers in the City of Pueblo and surrounding areas. Our primary source of water is the Arkansas River, but we also import transmountain water from tributaries to the Colorado River so efficient use of water and recovery of the endangered fish species in the Colorado River is very important to us.

Pueblo Water is pleased to support the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The plant is located at the beginning of the 15 Mile Reach of Critical Habitat for Endangered Fish on the Colorado River through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river. The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fish species in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Alan Ward

Alan Ward
Water Resources Division Manager
(719) 584-0235
award@pueblowater.org

Upper Colorado River Endangered Fish Recovery Program

Noreen Walsh, Chairperson
Implementation Committee

Thomas E. Chart
Program Director

U.S. Fish and Wildlife Service - P.O. Box 25486 - Denver Federal Center - Denver, CO 80225 - (303) 969-7322 - Fax (303) 969-7327

January 5, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

To Whom It May Concern:

The Upper Colorado River Endangered Fish Recovery Program (Program) is supportive of the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation.

The GVPP is a critical piece of infrastructure in terms of indirectly protecting instream flows that are a key component to the 15-Mile Reach PBO which directly affects ESA compliance for all water users relying on the Colorado River. The non-consumptive water right associated with this power plant delivers up to 71,000 acre-feet per year for instream flows that benefits many uses. This is a large percentage of the year-round flow and greatly benefits habitat for the endangered fish.

As you know on September 19, 2016, the Program's Implementation Committee approved a contribution to this project. We hope you can support this project as well and appreciate your consideration of this request.

Sincerely,

Thomas Chart

Thomas E. Chart, Director
Upper Colorado River Endangered Fish Recovery Program

SOUTHEASTERN COLORADO
Water Conservancy District
"Your investment in water"

December 28, 2016

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

The Southeastern Colorado Water Conservancy District supports the application to Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP provides an essential component of flow through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

James W. Broderick
Executive Director

31717 UNITED AVENUE • PUEBLO, CO 81001 • PHONE (719) 948-2400 • FAX (719) 948-0036
web site: www.secwcd.org

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director

January 3, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

I would like to express the support of the Utah Department of Natural Resources for the application to Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

As a signatory to the Upper Colorado River Endangered Fish Recovery Program (Program), the continued operation of the Grand Valley Power Plant is extremely important to the state of Utah. The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP provides an essential component of river flows through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Program. An important commitment of all the Program's participants is to provide water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management in both Utah and Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Michael Styler,
Executive Director

cc: Tom Pitts

MS/mb

1594 West North Temple, Suite 3710, Salt Lake City, UT 84116
PO Box 145610, Salt Lake City, UT 84114-5610
telephone (801) 538-7200 • facsimile (801) 538-7315 • TTY (801) 538-7458 • www.nr.utah.gov

THE SOUTHWESTERN WATER CONSERVATION DISTRICT
Developing and Conserving the Waters of the
SAN JUAN AND DOLORES RIVERS AND THEIR TRIBUTARIES
IN SOUTHWESTERN COLORADO
West Building – 841 East Second Avenue
DURANGO, COLORADO 81301
(970) 247-1302

January 3, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

RE: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

The Southwestern Water Conservation District was established by the Colorado legislature to conserve, protect, and develop the waters of the San Juan and Dolores Rivers and their tributaries. Consistent with that mandate, the District is supportive of the application to Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP ensures provides an essential component of flow through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Bruce Whitehead
Executive Director

The Nature Conservancy
Protecting nature. Preserving life.

The Nature Conservancy
Colorado River Program
2424 Spruce St
Boulder, CO 80302

nature.org/coloradoriver

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

January 6,2017

To Whom It May Concern:

On behalf of The Nature Conservancy's Colorado River Program, I am pleased to offer our support for the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) efforts in water and energy management and environmental stewardship through their application to Reclamation for a Water and Energy Efficiency Grant. Protecting and restoring healthy river flows for people and nature is the main goal of our work at the Colorado River Program and we are committed to working with partners like the Association and the District, along with the Bureau of Reclamation, to meet this goal.

This grant will allow the Association and the District to rebuild the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The GVPP is located at the beginning of the 15-Mile Reach, a section of Critical Habitat in the Colorado River for two federally-listed endangered fish species, and plays an essential role in maintaining flows for this important stretch of river. The Nature Conservancy has been active in the Upper Colorado River Recovery Program since its inception and the sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We are excited to support this project that provides benefits to agricultural producers, generates renewable energy, and provides important flows for fish species and riparian health. We urge Reclamation to fully support this important project. Thank you for your consideration.

Sincerely,

Aaron Derwingson

Aaron Derwingson
Colorado River Program Ag Coordinator

January 3, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

TRI-COUNTY WATER CONSERVANCY DISTRICT

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

The Tri-County Water Conservancy District is pleased to support the application to Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GAP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GAP ensures provides an essential component of flow through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Mike Berry
General Manager

970.249.3369
TRICOUNTYWATER.ORG

Water GENERATION POWERING THE FUTURE

647 N. 7TH STREET
MONTROSE, CO 81401

Richard Van Gytenbeek, Colorado River Basin Outreach Coordinator, Colorado Water Project

January 9, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

RE: Grand Valley Water Users Assn./Orchard Mesa Irrigation Dist. application for Water-Energy Eff. Grant.

To Whom It May Concern:

Trout Unlimited supports the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District) in their application to Reclamation for a Water and Energy Efficiency Grant. Ensuring the continued operation of the Grand Valley Power Plant (GVPP) is essential to supporting healthy streams and viable communities along the main-stem of the Colorado River for the following reasons.

1) The plant is located at the beginning of the Colorado River's15 Mile Reach of Critical Habitat for Endangered Fish through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river and is vitally important for the success of the recovery of the endangered fishes in the Colorado River.
2) Like other non-consumptive water rights such as the Shoshone and Redlands power plants, the GVPP ensures vital flows are sustained in the lower reaches of Colorado River during critical times of the year.
3) The plant is an essential component of Grand Valley agriculture. These agricultural activities support and diversify the local community and through their water rights (Cameo call) provide critical flows to the lower reaches of the Colorado River.

We support this project because it is an important component to maintaining healthy rivers, viable agriculture and vibrant communities in western Colorado. We encourage your positive consideration of this request.

Sincerely,

Richard Van Gytenbeek

Richard Van Gytenbeek
Colorado River Outreach Coordinator

Trout Unlimited: America's Leading Coldwater Fisheries Conservation Organization
1156 N. 5th St., Suite #409, Grand Junction , Colorado 81501
(307) 690-1267 • r.vangytenbeek@tu.org • www.tu.org

From: **Tammy Kline** tkline@gvwua.com
Subject: US Dept. of Interior Attachment From M. Harris
Date: January 13, 2017 at 10:06 AM
To: Dan Crebtree.PE@gmail.com

TK

Dan,
Please find attached Memo from the United States Department of the Interior from Mark Harris. He asked me to let you know that he is out sick today.

Tammy Kline
Administrative Assistant
Grand Valley Water Users Association
1147 – 24 Road
Grand Junction, CO 81505
Phone: (970) 242-5065
Fax: (970) 243-4871
E-mail: tkline@gvwua.com

United States Department of the Interior

BUREAU OF RECLAMATION
Upper Colorado Region
Western Colorado Area Office
445 West Gunnison Avenue, Suite 221
Grand Junction, CO 81501

JAN 13 2017

JAN 11 2017

IN REPLY REFER TO:
WCG-RChristianson
ADM-13.00

MEMORANDUM

To: Dean Marrone, WaterSMART Program Manager
Attention: 84-51000

From: Ed Warner
Area Manager

Subject: Western Colorado Area Office Support for the Grand Valley Power Plant (GVPP) Rehabilitation Project WaterSMART Grant Application

The Western Colorado Area Office would like to affirm our support for GVPP rehabilitation project, and the related WaterSMART grant proposal submitted by the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District). We believe this project will significantly contribute to the goals of the Water and Energy Efficiency Grant (WEEG) by providing an increase in efficiency of renewable energy, water savings and mitigates conflict risk by supporting environmental benefits for endangered fish.

Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in the GVPP and ensure its continued operation. The plant is located at the beginning of the Colorado River's 15 Mile Reach of Critical Habitat for endangered fish through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river. The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River, and mitigates the risk of water management conflict in the Upper Colorado River Basin.

We appreciate your consideration of support for this project. If your staff or the Application Review Committee (ARC) members have questions or need additional information from the Western Colorado Area Office, feel free to contact Ryan Christianson of my staff at 970-248-0652 or rchristianson@usbr.gov.

cc: Grand Valley Water Users Association
1147 24 Rd.
Grand Junction, CO 81505

P.O. Box 460 (81502)
2190 H 1/4 Road
Grand Junction, CO 81505

Office: (970)242-7491
Fax: (970) 242-9189
www.utewater.org

January 9, 2017

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

The Ute Water Conservancy District is pleased to support the application to Reclamation by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow rebuilding of the turbines and generators in Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the District and the Association in effective water and energy management and environmental stewardship.

The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP ensures provides an essential component of flow through the Grand Valley, along with other significant efforts by Reclamation, water users, and the state of Colorado to provide flow to benefit endangered fish through this reach as part of the Upper Colorado River Endangered Fish Recovery Program. The Upper Colorado River Endangered Fish Recovery Program provides water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River and general water management on the Western Slope of Colorado.

We support this project and appreciate your consideration of this request.

Sincerely,

Larry W Clever
General Manager
Ute Water Conservancy District

WESTERN RESOURCE ADVOCATES

U.S. Bureau of Reclamation
Application Review Committee
Water and Energy Efficiency Grants

January 6, 2017

To Whom It May Concern:

Western Resource Advocates is pleased to support the Grand Valley Water Users Association and Orchard Mesa Irrigation District's efforts in water and energy management and environmental stewardship through their application to the U.S. Bureau of Reclamation for a Water and Energy Efficiency Grant.

This grant would provide extremely valuable support for the Association and District to rebuild the turbines and generators in Grand Valley Power Plant ("GVPP") and ensure its continued operation.

The reason this matters: the plant is located at the beginning of the Colorado River's so-called 15 Mile Reach, designated as critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP will help ensure continued flows for this important stretch of river.

Among much other work protecting the West's rivers, Western Resource Advocates has been an active member of the Upper Colorado River Endangered Fish Recovery Program since 2003. We believe the grant applied for will be very important for securing the future of the four endangered fish, as well as other key river, economic, and community values provided by the Colorado River.

We support this project proposal and appreciate your consideration of this request.

Sincerely,

Bart P. Miller

Bart Miller, Director
Healthy Rivers Program
Western Resource Advocates

Arizona
P.O. Box 64128
Tucson, AZ 85728

Colorado
2260 Baseline Rd
Suite 200
Boulder, CO 80302

Nevada
550 W. Musser Street
Suite I
Carson City, NV 89703

New Mexico
409 East Palace Ave
Unit 2
Santa Fe, NM 87501

Utah
150 South 600 East
Suite 2A
Salt Lake City, UT 84102

State Engineer's Office

HERSCHLER BUILDING CHEYENNE, WYOMING 82002
(307) 777-6150

MATTHEW H. MEAD
GOVERNOR

PATRICK TYRRELL
STATE ENGINEER

6 January, 2017

U.S. Bureau of Reclamation
Application Review Committee - Water and Energy Efficiency Grants

Subject: Grant Application by Grand Valley Water Users Association and Orchard Mesa Irrigation District for Rehabilitation of the Grand Valley Power Plant

To Whom It May Concern:

I would like to express the support of the Wyoming State Engineer's Office for the application to the Bureau of Reclamation (Reclamation) by Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) for a Water and Energy Efficiency Grant to allow the rebuilding of the turbines and generators at the Grand Valley Power Plant (GVPP) and ensure its continued operation. The grant will support efforts by the Association and the District in effective water and energy management and environmental stewardship.

As a signatory to the Upper Colorado River Endangered Fish Recovery Program (Program), the continued operation of the Grand Valley Power Plant is extremely important to the State of Wyoming. The plant is located at the beginning of the 15-Mile-Reach of the Colorado River which is designated critical habitat for federally listed endangered fish. The non-consumptive water right of the GVPP provides an essential component of river flows through the Grand Valley to provide flows to benefit endangered fish through this reach as part of the Program. An important commitment of all the Program's participants is to provide water for endangered fish in accordance with state water law, interstate compacts, and Reclamation project authorizations.

The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Upper Colorado River Basin, which is a benefit to the State of Wyoming and our water users.

We support this project and appreciate your consideration of this request.

Sincerely,

Patrick T. Tyrrell,
State Engineer

cc: Steve Wolff, Wyoming Representative, UCREFRP

Board Resolution

Resolution
Board of Directors
Orchard Mesa Irrigation District

Whereas, the Orchard Mesa Irrigation District ("District") is an irrigation district organized pursuant to the Colorado Irrigation Law of 1903 and is governed by the Colorado Irrigation District Law of 1921 (CRS 37-42-101 thru 141).

Whereas, the District delivers irrigation water to over 9,800 landowners and approximately 9,500 acres of land in Mesa County, Colorado; and

Whereas, the U.S. Bureau of Reclamation constructed the Grand Valley Power Plant (GVPP) in 1931 as a part of the Grand Valley Project with funds advanced by Public Service Company; and

Whereas, Public Service Company has assigned its interests in the Lease of Power Privilege for operation of the GVPP to the District and Grand Valley Water Users Association (Association); and

Whereas, the District has entered into agreements with the Association for the operation and maintenance of the GVPP; and

Whereas, the District and Association desire to rehabilitate the GVPP and are seeking grant funding to do so;

NOW THEREFORE BE IT RESOLVED that the Orchard Mesa Irrigation District Board of Directors hereby:

- Designates the Manager of the District, Max Schmidt, as the legal authority/representative to enter into agreements related to the acquisition of grant funding for the above stated purposes
- Verifies the application for grant funding has been reviewed to the Board's satisfaction and supports the application submitted
- Commits the necessary in-kind and cash contributions necessary to complete the proposed project as outlined in the project funding plan
- Pledges to work with Reclamation as necessary to meet established deadlines for entering into necessary funding agreements

ADOPTED this 12 day of January, 2017 by unanimous vote:

ORCHARD MESA IRRIGATION DISTRICT

BY: Bruce Talbot

Bruce Talbot, President

Resolution 2017-01
Grand Valley Water users Association

Whereas, the U.S. Bureau of Reclamation constructed the Grand Valley Power Plant (GVPP) in 1931 as a part of the Grand Valley Project with funds advanced by Public Service Company; and

Whereas, Public Service Company has assigned its interests in the Lease of Power Privilege for operation of the GVPP to the Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association); and

Whereas, the Association has entered into agreements with the District for the operation and maintenance of the GVPP; and

Whereas, the District and Association desire to rehabilitate the GVPP and are seeking grant funding to do so;

NOW THEREFORE BE IT RESOLVED that the Grand Valley Water Users Association Board of Directors hereby:

- Designates the Manager of the Association, Mark Harris, as the legal authority/representative to enter into agreements related to the acquisition of funding from the Bureau of Reclamation via the **Water Energy and Efficiency grant program** for the above stated purposes on behalf of the GVWUA
- Verifies the application for grant funding has been reviewed to the Board's satisfaction and supports the application submitted
- Commits the necessary in-kind and cash contributions necessary to complete the proposed project as outlined in the project funding plan
- Pledges to work with Reclamation as necessary to meet established deadlines for entering into necessary funding agreements

ADOPTED this _____day of January, 2017 by unanimous vote:

Grand Valley Water Users Association

BY: _____ _____

Joseph C. Bernal, President D. Kim Albertson, Secretary

Letters of Financial Commitment
CWCB Loan Approval, GVWUA

COLORADO
Colorado Water
Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

November 18, 2016

Mr. Max Schmidt, Manager
Orchard Mesa Irrigation District
668 38 Road
Palisade, CO 81526

Re: Grand Valley Power Plant Rehabilitation

Mr. Schmidt:

I am pleased to inform you that on November 16, 2016, the Colorado Water Conservation Board approved your loan request for the Grand Valley Power Plant Rehabilitation as described in the application and approved Loan Feasibility Study titled "*Grand Valley Hydroelectric Power Plant Rehabilitation Project Loan Feasibility Study*" dated October 1, 2016. The Board approved a loan not to exceed $1,717,000 ($1,700,000 for Project costs and $17,000 for the 1% service fee). The loan terms shall be 2.0% per annum for 30 years.

I have attached a copy of the updated Board memo dated November 17, 2016 that includes the Board's approval. After the Board approves a loan there are a few steps that remain in the loan process including:

Contracting: An executed loan contract must be in place before funds can be disbursed for eligible project expenses. Peg Mason, Loan Contracts Manager, will contact you to initiate the loan contracting process. She can be reached at (303) 866-3441 x3227.

Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures including an invitation to the Prebid, Preconstruction and Bid Opening meetings. Jonathan Hernandez, P.E., will be the Project Manager for this phase of the process and will work with you on the disbursements of your loan funds. He can be reached at (303) 866-3441 x3234.

On behalf of the Board, I would like to thank you for your interest in a loan from the CWCB.

Sincerely,

Kirk Russell, P.E., Chief
Finance Section

Attachment: Updated Board Memo
E-mail Copy (Including Attachments): Russ George, CWCB Board Member - Colorado River Basin

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief KGR

DATE: November 16-17, 2016 Board Meeting **(Updated November 17, 2016)**

AGENDA ITEM: 14b. Water Project Loans
Orchard Mesa Irrigation District - Grand Valley Power Plant Rehabilitation

---

Introduction

The Orchard Mesa Irrigation District (District) is applying for a loan for the Grand Valley Power Plant Rehabilitation (Project). The District is working with the Grand Valley Water Users Association (Association) to complete this Project. The goal of the Project is to bring the Grand Valley Power Plant (GVPP) up to a sustainable operating condition and meet current electric and safety standards. Preliminary designs show the rehabilitation could increase the maximum power generation output from 2.75 MW to 4.1 MW. The District is requesting a loan from the CWCB for approximately 92% of its share of Project cost. The Association is concurrently seeking a CWCB loan to help cover its share of Project cost (see November 2016 Agenda Item 14c). Combined, these two CWCB loans would cover approximately 65% of the total Project cost. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation (Board approved Staff Recommendation on November 16, 2016)

Staff recommends the Board approve a loan not to exceed $1,717,000 ($1,700,000 for Project costs and $17,000 for the 1% service fee) to the Orchard Mesa Irrigation District, for costs related to the Grand Valley Power Plant Rehabilitation Project, from the Construction Fund. The loan terms shall be 30 years at the hydroelectric interest rate of 2.0% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background

The District is a small irrigation district serving 9,500 acres and provides irrigation water to farms, vineyards, orchards, and subdivisions in the Grand Valley of Mesa County. Its service area is on the south side of the Colorado River starting just east of the Town of Palisade down to the confluence of the Colorado and Gunnison Rivers near downtown Grand Junction. Major crops grown in the District include alfalfa, orchards, vineyards, corn and grain, pasture, grass lawns, and truck gardens. The District became a division of the Bureau of Reclamation's (Reclamation) Grand Valley Project in 1921. Its water is diverted at the Grand Valley Project Diversion Dam (Roller Dam), flows through the Canyon Canal, and is diverted into the District's Power Canal.

The GVPP was built in the early 1930s and was operated by Public Service Company of Colorado (Xcel Energy) in conjunction with the Cameo coal power plant until 2010. When the Cameo coal power plant was decommissioned, Xcel Energy decided to cease operations at the GVPP as well. As the continued operation of the GVPP is important for river flows in a stretch of the Colorado River known as the "15-Mile Reach," Reclamation encouraged the District and Association to operate and maintain the GVPP. At the end of 2010, a Lease of Power Privilege (LOPP) was entered into between Reclamation and the District and Association. Under this LOPP, the District and Association equally split GVPP operational and maintenance cost. Starting in 2011, the Association and District entered into a 10-year Power Purchase Agreement (PPA) with Xcel Energy, with revenues being equally split as well. The District operates the GVPP and invoices the Association for half its cost. Reclamation remains the owner of the GVPP and its hydropower water right.

Very little work has occurred on the GVPP since its construction in the 1930s with the exception of minimal maintenance. The turbines, generator, and electrical panels are more or less as they were originally constructed, and rely on 1930s technology. It is believed this may be the last remaining hydroelectric power plant that manually syncs to the power grid. Due to the worn and now outdated condition of the plant, most of the major plant components require replacement or upgrades if the plant is to operate for more than a few remaining years.

Loan Feasibility Study

The District and Association together prepared the Loan Feasibility Study titled, "Grand Valley Hydroelectric Power Plant Rehabilitation Project Loan Feasibility Study," dated October 1, 2016. This study relied on a 2015 Feasibility Study prepared by Sorenson Engineering, Inc. titled "Grand Valley Power Plant Feasibility Study." The feasibility study was prepared in accordance with CWCB guidelines and includes an analysis of alternatives, preliminary engineering design, and construction cost estimates.

Borrower - Orchard Mesa Irrigation District

The District was organized in 1904 under the Colorado Irrigation District Law of 1903, and later changed to be organized under the Irrigation District Law of 1921. The District was formed for the purpose of diverting, carrying, and delivering irrigation water within the District's boundaries. The District provides irrigation water to approximately 9,800 parcels in Mesa County. Revenues are primarily derived from assessments charged to its water users, with additional revenues coming from the sale of electricity generated by the GVPP. The District is not a public governmental entity exercising taxing authority and is therefore not subject to TABOR restrictions.

The District has a 5-member Board of Directors which carries out the normal business function of the District including levying assessments. As a 1921 Act irrigation district, the Mesa County treasurer collects assessments for Orchard Mesa with property taxes, and the treasurer can enforce penalties and

forfeitures for delinquent assessments. Additionally, that Act requires Landowner approval in order to enter into a loan agreement over $20,000.

Water Rights

The water right associated with the GVPP is shown in Table 1. The United States, through Reclamation, is the owner of the hydropower water right, as well as the other water rights associated with the Grand Valley Project.

TABLE 1: GVPP WATER RIGHT

Name	Amount	Appropriation Date	Adjudication Date	Water Court Case No.
Grand Valley Project (*Hydropower*)	400 CFS (*irr. season*) 800 CFS (*non-irr. season*)	2/27/1908	7/25/1941	CA5812

The GVPP water right is a part of the "Cameo Call" which is a call comprised of a series of water rights on the Colorado River owned by five entities: the District, the Association, the Grand Valley Irrigation Company, the Palisade Irrigation District, and the Mesa County Irrigation District. This call is important because it assists the state in complying with its obligations under the Colorado River Compact, and in maintaining acceptable lake levels in Lake Powell.

Project Description

The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. Under current operations, the "water-to-wire" efficiency is approximately 54% with a maximum generation output of 2.5 MW. Calculations show as much as 4.1 MW production should be feasible based on flow rate and available head. The District and Association received engineering proposals and feasibility studies for plant rehabilitation. Based on the received proposals, Sorenson Engineering was selected to be the design-build engineer.

Alternative 1 - No Action: This alternative was not selected because the GVPP is projected to be operable for only a few more years if not rehabilitated. In addition to being a revenue source for the District, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat where in-stream flows are crucial by being directly responsible for providing up to 400 cfs of water throughout the critical base flow period.

Alternative 2 - Rehabilitate without Upgraded Production: The PPA is for power production to 3.5 MW. Accordingly, the engineer presented an alternative to design upgrades and efficiencies to only provide to the current PPA limit. However, this alternative was not selected because the capital cost to generate up to 4.1 MW is very low and provides additional generation potential if the current PPA is amended, or when the PPA expires in 5 years. Additionally, any power produced above 3.5 MW can currently be sold at the avoided cost rate.

Alternative 3 - Rehabilitate with Upgraded Production: Project components of this alternative include: (1) recoat two 78" diameter penstocks, scroll case and draft tubes; (2) replace turbine components, disassemble and rewind generators; and (3) replace existing controls, switchgear, and substation with equipment that meets current NESC clearances and standards. This alternative will increase "water-to-wire" efficiency from 54% to 82.5% and the maximum generation output from 2.5 MW to 4.1 MW without requiring additional flows.

The cost associated with this alternative is $5,200,000 as shown in Table 2. The District and Association have a current PPA with Xcel Energy at a rate of $0.04 per kWh up to a production level of 3.5 MW. The PPA is set to expire on December 31, 2020 though it is hoped the PPA can be renegotiated and extended prior to expiration. The current avoided cost rate for Xcel is $0.03 per kWh and this lower value was conservatively used to analyze the economic feasibility for year 2021 onward, though at the higher 4.1 MW production level.

TABLE 2: PROJECT COST

Task	Cost
Phase 1 75% Engineering Design	$540,000
Phase 2 100% Engineering Design Equipment Order Rewind Generators Substation/Electrical Work	$2,075,000
Phase 3 Penstocks Equipment Install Equipment Startup	$1,980,000
Xcel Energy Review Cost	$50,000
Subtotal	$4,645,000
Contingency	$555,000
TOTAL	$5,200,000

Permitting: The GVPP is permitted through an existing Lease of Power Privilege (LOPP) between Reclamation and the District and Association. Reclamation owns the GVPP and the underlying land and will thus take the lead to ensure compliance with the National Environmental Policy Act (NEPA), National historic Preservation Act (NHPA), and Endangered Species Act (ESA). Compliance issues are not anticipated as this is a plant rebuild.

Schedule: Phase 1 is scheduled to be completed by January 2017, Phase 2 by January 2018, and Phase 3, with GVPP being fully operational, by July 2018.

Financial Analysis

The Project qualifies for the hydroelectric interest rate of 2.0% for a 30-year term. The District is requesting a loan to cover 92% of its share of Project cost that are not otherwise covered by alternate sources of funds. Currently, the District and Association have secured $1,500,000 in alternate funds composed of a grant commitment from the Upper Colorado River Recovery Program. The District and Association are seeking to secure a CWCB loan for the remaining construction cost to ensure the Project is fully funded, but will continue to seek additional sources of grant funds to reduce the final loan amount. Other sources of funds that will be explored include: a WSRF grant from the CWCB, a Species Conservation Trust Fund grant from CWCB ($400k currently approved but not yet contracted), a WaterSmart grant from Reclamation, and using LOPP Accumulated lease payments as a credit towards the Project. Additionally, the District and Association are each committed for $150,000 each out of its restricted repair and replace fund.

TABLE 3: FINANCIAL SUMMARY

Total Project Cost	$5,200,000
Alternate Funding Sources	$1,500,000
Association's Contribution (Pending $1.7M CWCB Loan)	$1,850,000
District Cash Contribution	$150,000
District CWCB Loan Amount	$1,700,000
CWCB Loan Amount (Including 1% Service Fee)	$1,717,000
CWCB Annual Loan Payment	$76,664
CWCB Annual Loan Obligation (1st Ten Years)	$84,330
Annual Loan Obligation per annual kilowatt hours (17 M kWh/year)	$0.005
Project Cost per Megawatt (4.1 MW Facility)	$1,268,293

Creditworthiness: The District has no existing long-term debt. CWCB loans were obtained in 1995 and 2006 for $1,000,000 and $545,000, respectively, but these were both paid in full ahead of schedule in 2012. The financial analysis in Table 4 looks at total revenues and expenses of the GVPP itself, and does not take into account non-GVPP business aspects of the District or Association. This analysis shows the GVPP is self sustaining during average years.

TABLE 4: GVPP FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	199% (strong) $545K/$274K	100% (average) $505K/$503K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	NA	101% (strong) ($505K-$334K) $169K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	111% (Strong) $304K /$274K	11% (weak)[1] $54K /$503K

[1]*Does not assume accumulations of the $50,000 per year reserve account for Repair/Replace*

Collateral: Security for this loan will be a pledge of the District's assessment revenues backed by an assessment covenant, and will provide annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Max Schmidt, Manager, Orchard Mesa Irrigation District
Jennifer Mele /Derek Turner, Colorado Attorney General's Office

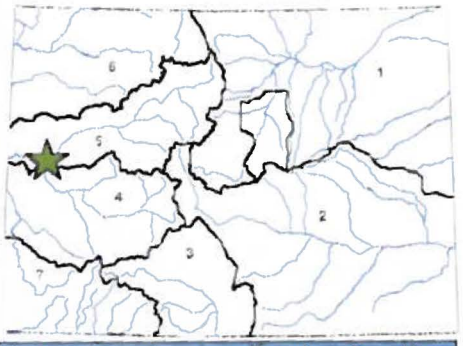
Attachment: Water Project Loan Program - Project Data Sheet

COLORADO
Colorado Water Conservation Board

Grand Valley Power Plant Rehabilitation

Orchard Mesa Irrigation District
November 2016 Board Meeting

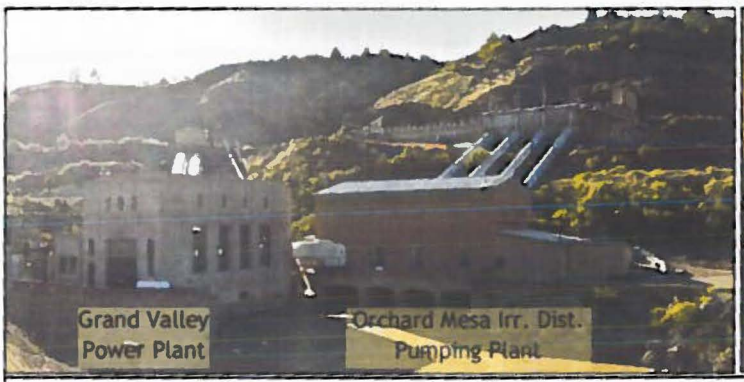
LOAN DETAILS	
Project Cost:	$5,200,000
CWCB Loan (with Service Fee):	$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	17M kWh



LOCATION			
County:			Mesa
Water Source:			Colorado River
Drainage Basin:			Colorado
Division:	5	*District:*	72

The Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Engergy) in conjunction with the Cameo coal fired power plant. The District and Association took operational control of the plant when Xcel decided to cease its operations. The District and Association equally split costs and revenues from the GVPP under a Lease of Power Privilage with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an importnant role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the "water-to-wire" efficiency is approximately 54% with a maximum generation output of 2.5 MW. Calculations show as much as 4.1MW production should be feasible based on flow rate and available head.



COLORADO
Colorado Water
Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

November 18, 2016

Mr. Mark Harris, General Manager
Grand Valley Water Users Association
1147 24 Road
Grand Junction, CO 81505

Re: Grand Valley Power Plant Rehabilitation

Mr. Harris:

I am pleased to inform you that on November 16, 2016, the Colorado Water Conservation Board approved your loan request for the Grand Valley Power Plant Rehabilitation as described in the application and approved Loan Feasibility Study titled "*Grand Valley Hydroelectric Power Plant Rehabilitation Project Loan Feasibility Study*" dated October 1, 2016. The Board approved a loan not to exceed $1,717,000 ($1,700,000 for Project costs and $17,000 for the 1% service fee). The loan terms shall be 2.0% per annum for 30 years.

I have attached a copy of the updated Board memo dated November 17, 2016 that includes the Board's approval. After the Board approves a loan there are a few steps that remain in the loan process including:

Contracting: An executed loan contract must be in place before funds can be disbursed for eligible project expenses. Peg Mason, Loan Contracts Manager, will contact you to initiate the loan contracting process. She can be reached at (303) 866-3441 x3227.

Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures including an invitation to the Prebid, Preconstruction and Bid Opening meetings. Jonathan Hernandez, P.E., will be the Project Manager for this phase of the process and will work with you on the disbursements of your loan funds. He can be reached at (303) 866-3441 x3234.

On behalf of the Board, I would like to thank you for your interest in a loan from the CWCB.

Sincerely,

Kirk Russell, P.E., Chief
Finance Section

Attachment: Updated Board Memo
E-mail Copy (Including Attachments): Russ George, CWCB Board Member - Colorado River Basin

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief KGR

DATE: November 16-17, 2016 Board Meeting **(Updated November 17, 2016)**

AGENDA ITEM: 14c. Water Project Loans
Grand Valley Water Users Association - Grand Valley Power Plant Rehabilitation

---

Introduction

The Grand Valley Water Users Association (Association) is applying for a loan for the Grand Valley Power Plant Rehabilitation (Project). The Association is working with the Orchard Mesa Irrigation District (District) to complete this Project. The goal of the Project is to bring the Grand Valley Power Plant (GVPP) up to a sustainable operating condition and meet current electric and safety standards. Preliminary designs show the rehabilitation could increase the maximum power generation output from 2.75 MW to 4.1 MW. The Association is requesting a loan from the CWCB for approximately 92% of its share of Project cost. The District is concurrently seeking a CWCB loan to help cover its share of Project cost (see November 2016 Agenda Item 14b). Combined, these two CWCB loans would cover approximately 65% of the total Project cost. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation (Board approved Staff Recommendation on November 17, 2016)

Staff recommends the Board approve a loan not to exceed $1,717,000 ($1,700,000 for Project costs and $17,000 for the 1% service fee) to the Grand Valley Water Users Association, for costs related to the Grand Valley Power Plant Rehabilitation Project, from the Construction Fund. The loan terms shall be 30 years at the hydroelectric interest rate of 2.0% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background

The Association is the managing entity of the Bureau of Reclamation (Reclamation) owned Grand Valley Project. The Grand Valley Project facilities include the Roller Dam, the 55-mile-long Government Highline Canal, 150 miles of project-operated laterals, 100 miles of drainage ditches, and the Grand Valley Power Plant (GVPP). The Association was established to deliver water for the purpose of irrigating farm land which carries water rights appurtenant to the land.

The GVPP was built in the early 1930s and was operated by Public Service Company of Colorado (Xcel Energy) in conjunction with the Cameo coal power plant until 2010. When the Cameo coal power plant was decommissioned, Xcel Energy decided to cease operations at the GVPP as well. As the continued operation of the GVPP is important for river flows in a stretch of the Colorado River known as the "15-Mile Reach," Reclamation encouraged the Association and District to operate and maintain the GVPP. At the end of 2010, a Lease of Power Privilege (LOPP) was entered into between Reclamation and the Association and District. Under this LOPP, the Association and District equally split GVPP operational and maintenance cost. Starting in 2011, the Association and District entered into a 10-year Power Purchase Agreement (PPA) with Xcel Energy, with revenues being equally split as well. The District operates the GVPP and invoices the Association for half its cost. Reclamation remains the owner of the GVPP and its hydropower water right.

Very little work has occurred on the GVPP since its construction in the 1930s with the exception of minimal maintenance. The turbines, generator, and electrical panels are more or less as they were originally constructed and rely on 1930s technology. It is believed this may be the last remaining hydroelectric power plant that manually syncs to the power grid. Due to the worn and now outdated condition of the plant, most of the major plant components require replacement or upgrades if the plant is to operate for more than a few remaining years.

Loan Feasibility Study

The Association and District together prepared the Loan Feasibility Study titled, "Grand Valley Hydroelectric Power Plant Rehabilitation Project Loan Feasibility Study," dated October 1, 2016. This study relied on a 2015 Feasibility Study prepared by Sorenson Engineering, Inc. titled "Grand Valley Power Plant Feasibility Study." The feasibility study was prepared in accordance with CWCB guidelines and includes an analysis of alternatives, preliminary engineering design, and construction cost estimates.

Borrower - Grand Valley Water Users Association

The Association is a non-profit corporation formed in 1905 to manage the Bureau of Reclamation's Grand Valley Project. There are 1,754 shareholders in the Association's service area. Water is allocated to the land through "Subscription for Stock" agreements. These agreements were entered into by the Association and owners of irrigable lands in the early 1900s and were recorded with the Mesa County Clerk and Recorder's office. When land ownership changes, water rights remain with the land and cannot be sold separately.

Assessments are billed annually based on allotments for individual parcels of land. Each parcel is assessed a fee per acre, plus an additional assessment of $100 per account to cover the additional costs incurred from work on the Roller Dam, laterals, and other entities. Revenues are primarily derived from these assessments, but the Association also receive funds from Reclamation per a salinity control cost sharing agreement, and from the sale of electricity generated by the GVPP.

The Association is governed by an eleven-member board of directors. The board has the authority to make and levy all assessments, and has the power to enforce collection of assessments by ceasing

water deliveries to delinquent shareholders, issuing liens on the shares (which become a lien on the land), and the eventual foreclosure and sale of said lands. It also has the power to make and enforce all rules and regulations concerning the distribution of water within the system. The board has the authority to enter into debt without shareholder approval for maintenance and repair projects.

Water Rights
The water right associated with the GVPP is shown in Table 1. The United States, through Reclamation, is the owner of the hydropower water right, as well as the other water rights associated with the Grand Valley Project.

TABLE 1: GVPP WATER RIGHT

Name	Amount	Appropriation Date	Adjudication Date	Water Court Case No.
Grand Valley Project (*Hydropower*)	400 CFS (*irr. season*) 800 CFS (*non-irr. season*)	2/27/1908	7/25/1941	CA5812

The GVPP water right is a part of the "Cameo Call" which is a call comprised of a series of water rights on the Colorado River owned by five entities: the Association, the District, the Grand Valley Irrigation Company, the Palisade Irrigation District, and the Mesa County Irrigation District. This call is important because it assists the state in complying with its obligations under the Colorado River Compact, and in maintaining acceptable lake levels in Lake Powell.

Project Description
The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. Under current operations, the "water-to-wire" efficiency is approximately 54% with a maximum generation output of 2.5 MW. Calculations show as much as 4.1 MW production should be feasible based on flow rate and available head. The Association and District received engineering proposals and feasibility studies for plant rehabilitation. Based on the received proposals, Sorenson Engineering was selected to be the design-build engineer.

Alternative 1 - No Action: This alternative was not selected because the GVPP is projected to be operable for only a few more years if not rehabilitated. In addition to being a revenue source for the Association, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat where in-stream flows are crucial by being directly responsible for providing up to 400 cfs of water throughout the critical base flow period.

Alternative 2 - Rehabilitate without Upgraded Production: The PPA is for power production to 3.5 MW. Accordingly, the engineer presented an alternative to design upgrades and efficiencies to only provide to the current PPA limit. However, this alternative was not selected because the capital cost to generate up to 4.1 MW is very low and provides additional generation potential if the current PPA is amended, or when the PPA expires in 5 years. Additionally, any power produced above 3.5 MW can currently be sold at the avoided cost rate.

Alternative 3 - Rehabilitate with Upgraded Production: Project components of this alternative include: (1) recoat two 78" diameter penstocks, scroll case and draft tubes; (2) replace turbine components, disassemble and rewind generators; and (3) replace existing controls, switchgear, and substation with equipment that meets current NESC clearances and standards. This alternative will

increase "water-to-wire" efficiency from 54% to 82.5% and the maximum generation output from 2.5 MW to 4.1 MW without requiring additional flows.

The cost associated with this alternative is $5,200,000 as shown in Table 2. The Association and District have a current PPA with Xcel Energy at a rate of $0.04 per kWh up to a production level of 3.5 MW. The PPA is set to expire on December 31, 2020 though it is hoped the PPA can be renegotiated and extended prior to expiration. The current avoided cost rate for Xcel is $0.03 per kWh and this lower value was conservatively used to analyze the economic feasibility for year 2021 onward, though at the higher 4.1 MW production level.

TABLE 2: PROJECT COST

Task	Cost
Phase 1 75% Engineering Design	$540,000
Phase 2 100% Engineering Design Equipment Order Rewind Generators Substation/Electrical Work	$2,075,000
Phase 3 Penstocks Equipment Install Equipment Startup	$1,980,000
Xcel Energy Review Cost	$50,000
Subtotal	$4,645,000
Contingency	$555,000
TOTAL	$5,200,000

Permitting: The GVPP is permitted through an existing Lease of Power Privilege (LOPP) between Reclamation and the Association and District. Reclamation owns the GVPP and the underlying land and will thus take the lead to ensure compliance with the National Environmental Policy Act (NEPA), National historic Preservation Act (NHPA), and Endangered Species Act (ESA). Compliance issues are not anticipated as this is a plant rebuild.

Schedule: Phase 1 is scheduled to be completed by January 2017, Phase 2 by January 2018, and Phase 3, with GVPP being fully operational, by July 2018.

Financial Analysis

The Project qualifies for the hydroelectric interest rate of 2.0% for a 30-year term. The Association is requesting a loan to cover 92% of its share of Project cost that are not otherwise covered by alternate sources of funds. Currently, the Association and District have secured $1,500,000 in alternate funds composed of a grant commitment from the Upper Colorado River Recovery Program. The Association and District are seeking to secure a CWCB loan for the remaining construction cost to ensure the Project is fully funded, but will continue to seek additional sources of grant funds to reduce the final loan amount. Other sources of funds that will be explored include: a WSRF grant from the CWCB, a Species Conservation Trust Fund grant from CWCB ($400k currently approved but not yet contracted), a

WaterSmart grant from Reclamation, and using LOPP Accumulated lease payments as a credit towards the Project. As of now, at least $1,500,000 in alternate funds are committed and the Association and District are each committed for $150,000 each out of its restricted repair and replace fund.

TABLE 3: FINANCIAL SUMMARY

Total Project Cost	$5,200,000
Alternate Funding Sources	$1,500,000
District's Contribution (Pending $1.7M CWCB Loan)	$1,850,000
Association Cash Contribution	$150,000
Association CWCB Loan Amount	$1,700,000
CWCB Loan Amount (Including 1% Service Fee)	$1,717,000
CWCB Annual Loan Payment	$76,664
CWCB Annual Loan Obligation (1st Ten Years)	$84,330
Annual Loan Obligation per annual kilowatt hours (17 M kWh/year)	$0.005
Project Cost per Megawatt (4.1 MW Facility)	$1,268,293

Creditworthiness: The Association has no existing long-term debt but was recently approved for a $151,500 loan for the Government Highline Canal Lining Project at the September 2016 CWCB Board Meeting. This will result in an annual payment of $6,353 if the loan is fully disbursed but will be paid from assessments and not GVPP revenue. The financial analysis in Table 4 looks at total revenues and expenses of the GVPP itself, and does not take into account non-GVPP business aspects of the Association or District. This analysis shows the GVPP is self sustaining during average years.

TABLE 4: GVPP FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	199% (strong) $545K/$274K	100% (average) $505K/$503K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	NA	101% (strong) ($505K-$334K) $169K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	111% (Strong) $304K /$274K	11% (weak)[1] $54K /$503K

[1]*Does not assume accumulations of the $50,000 per year reserve account for Repair/Replace*

Collateral: Security for this loan will be a pledge of the Associations' assessment revenues backed by an assessment covenant, and will provide annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Mark Harris, General Manager, Grand Valley Water Users Association
Jennifer Mele, Colorado Attorney General's Office

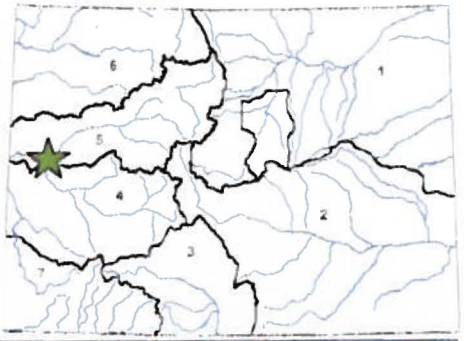
Attachment: Water Project Loan Program - Project Data Sheet

COLORADO
Colorado Water Conservation Board

Grand Valley Power Plant Rehabilitation

Grand Valley Water Users Association
November 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$5,200,000
CWCB Loan (with Service Fee):	$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	17M kWh



LOCATION			
County:			Mesa
Water Source:			Colorado River
Drainage Basin:			Colorado
Division:	5	*District:*	72

The Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Engergy) in conjunction with the Cameo coal fired power plant. The Association and District took operational control of the plant when Xcel decided to cease its operations. The Association and District equally split costs and revenues from the GVPP under a Lease of Power Privilage with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an importnant role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the "water-to-wire" efficiency is approximately 54% with a maximum generation output of 2.5 MW. Calculations show as much as 4.1MW production should be feasible based on flow rate and available head.

Resolution 2017-01
Grand Valley Water users Association

Whereas, the U.S. Bureau of Reclamation constructed the Grand Valley Power Plant (GVPP) in 1931 as a part of the Grand Valley Project with funds advanced by Public Service Company; and

Whereas, Public Service Company has assigned its interests in the Lease of Power Privilege for operation of the GVPP to the Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association); and

Whereas, the Association has entered into agreements with the District for the operation and maintenance of the GVPP; and

Whereas, the District and Association desire to rehabilitate the GVPP and are seeking grant funding to do so;

NOW THEREFORE BE IT RESOLVED that the Grand Valley Water Users Association Board of Directors hereby:

- Designates the Manager of the Association, Mark Harris, as the legal authority/representative to enter into agreements related to the acquisition of funding from the Bureau of Reclamation via the **Water Energy and Efficiency grant program** for the above stated purposes on behalf of the GVWUA
- Verifies the application for grant funding has been reviewed to the Board's satisfaction and supports the application submitted
- Commits the necessary in-kind and cash contributions necessary to complete the proposed project as outlined in the project funding plan
- Pledges to work with Reclamation as necessary to meet established deadlines for entering into necessary funding agreements

ADOPTED this _____day of January, 2017 by unanimous vote:

Grand Valley Water Users Association

BY: _____ _____

Joseph C. Bernal, President D. Kim Albertson, Secretary

United States Department of the Interior

BUREAU OF RECLAMATION
Upper Colorado Region
Western Colorado Area Office
445 West Gunnison Avenue, Suite 221
Grand Junction, CO 81501

IN REPLY REFER TO:
WCG-RChristianson
ADM-13.00

JAN 11 2017

MEMORANDUM

To: Dean Marrone, WaterSMART Program Manager
Attention: 84-51000

From: Ed Warner
Area Manager

Subject: Western Colorado Area Office Support for the Grand Valley Power Plant (GVPP) Rehabilitation Project WaterSMART Grant Application

The Western Colorado Area Office would like to affirm our support for GVPP rehabilitation project, and the related WaterSMART grant proposal submitted by the Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District's (District). We believe this project will significantly contribute to the goals of the Water and Energy Efficiency Grant (WEEG) by providing an increase in efficiency of renewable energy, water savings and mitigates conflict risk by supporting environmental benefits for endangered fish.

Successful acquisition of this grant will allow the Association and District to rebuild the turbines and generators in the GVPP and ensure its continued operation. The plant is located at the beginning of the Colorado River's 15 Mile Reach of Critical Habitat for endangered fish through the Grand Valley. The non-consumptive water right of the GVPP ensures continued flows for this important stretch of river. The sustained operation of the GVPP is vitally important for the success of the recovery of the endangered fishes in the Colorado River, and mitigates the risk of water management conflict in the Upper Colorado River Basin.

We appreciate your consideration of support for this project. If your staff or the Application Review Committee (ARC) members have questions or need additional information from the Western Colorado Area Office, feel free to contact Ryan Christianson of my staff at 970-248-0652 or rchristianson@usbr.gov.

cc: Grand Valley Water Users Association
1147 24 Rd.
Grand Junction, CO 81505

Orchard Mesa Irrigation District
668 38 Rd.
Palisade, CO 81526

JAN 17 '17 PM 4:28