

United States Department of the Interior  
Bureau of Reclamation  
Western Colorado Area Office  
Grand Junction, Colorado

**FINDING OF NO SIGNIFICANT IMPACT**

**LEASE OF POWER PRIVILEGE FOR THE SOUTH CANAL DROP 4 HYDROPOWER PROJECT, UNCOMPAHGRE PROJECT, MONTROSE COUNTY, COLORADO**

In accordance with the National Environmental Policy Act of 1969, as amended, and the Council on Environmental Quality's Regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR Part 1500-1508), the Bureau of Reclamation has prepared an Environmental Assessment (EA) for the South Canal Drop 4 Hydropower Project of the Uncompahgre Project (Project) near Montrose, Colorado. The EA assesses a No Action and Proposed Action alternatives. Based on the following, Reclamation has determined that the proposed action with implemented environmental commitments will not result in a significant impact on the human environment.

**Background**

The Uncompahgre Project is a Bureau of Reclamation (Reclamation) project located in west-central Colorado, which is operated by the Uncompahgre Valley Water Users Association (UVWUA). The South Canal, in conjunction with the Gunnison Tunnel, was constructed in 1909. The Canal provides water to lateral canals near the outlet of the Tunnel, directly supplies up to 172 cfs to the West Canal, and increases the volume of the Uncompahgre River downstream of the South Canal from which additional canals are supplied.

A Lease of Power Privilege (LOPP) is a contract between a non-Federal entity and the United States to use federal project facilities for electric power generation consistent with Reclamation project purposes. A LOPP must not impair the efficiency of Reclamation generated power or water deliveries, jeopardize public safety, or negatively affect any other Reclamation project purposes. The Uncompahgre Project includes the development of hydropower as an authorized project purpose.

On August 3, 2013, Congress passed the Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act. This act requires that Reclamation first offer a LOPP to the irrigation district or water users association operating the federal project, or to the irrigation district or water users association receiving water from the federal project. The UVWUA is the waters users association which operates the Uncompahgre Project.

On May 14, 2014, a Preliminary Lease of Power Privilege (Contract No. 2014-0031-CF-0002) was entered into by Reclamation and the UVWUA to permit cost-recovery for the construction and operation of a hydropower facility at Drop 4. The LOPP on Drop 4 must accommodate

existing contractual, water delivery, and environmental commitments related to operation and maintenance of the South Canal and the Uncompahgre Project.

### **Purpose and Need**

The purpose of the proposed action is to develop clean hydropower facilities consistent with federal regulations. A LOPP is needed for private development of a 4.8 megawatt (MW) hydropower plant on the South Canal at Drop 4. Current Federal policy encourages non-Federal development of environmentally sustainable hydropower potential on Federal water resource related projects. The LOPP would ensure that the development of hydropower would be implemented consistent with established authorities, purposes, and water operations for the Uncompahgre Project. The electricity generated by the Project would provide the UVWUA with an additional source of revenue that can be used to defray annual operative expenses associated with the Uncompahgre Project while assisting local utilities in meeting regional requirements and demands for renewable energy.

### **Scoping/Public Involvement**

Reclamation's scoping was primarily limited to the Uncompahgre Valley Water Users Association and the Colorado Historic Preservation Officer. Reclamation had previously issued similar LOPPs for the Uncompahgre Project, and previous EAs were also used as a source to identify potential issues and concerns. A Draft EA was prepared and distributed on July 24, 2014 to 25 local, state, and federal agencies and organizations, and 3 property owners adjacent to Drop 4. The Draft EA was also distributed on the Bureau of Reclamation website, along with a Press Release announcing its distribution and request for comments. Comments were requested by August 8, 2014.

One comment on the draft EA was received by Reclamation.

### **No Action Alternative**

Under the No Action Alternative, a LOPP would not be executed between Reclamation and UVWUA for the construction, operation, and maintenance of a hydropower facility at Drop 4 on the South Canal.

### **Proposed Action Alternative**

Under the Proposed Action Alternative, Reclamation would execute a LOPP to permit UVWUA to construct, operate, and maintain a 4.8 MW hydropower plant and associated facilities adjacent to the South Canal at Drop 4. Reclamation would also issue license agreements to allow the construction, operation, and maintenance of 1.27 miles of overhead power lines to connect the new facility to the existing electrical grid.

## **Summary of Findings**

Reclamation conducted an analysis on a wide range of environmental criteria for the No Action and Proposed Action alternatives. Below is a summary of the analysis as discussed in the EA.

The No Action Alternative does not meet the purpose and need as described above.

Under the Proposed Action Alternative, Reclamation would execute a LOPP to permit UVWUA to construct, operate, and maintain a 4.8 MW hydropower plant and associated facilities adjacent to the South Canal, and construct, operate, and maintain 1.27 miles of new overhead power lines. The Proposed Action is predicted to have no effect on recreation use, fisheries, and water supply for irrigation and municipal uses. Details of predicted impacts (both beneficial and negative) for other resources are discussed in greater detail below.

Energy and Socioeconomic Conditions – The new hydropower project would produce an estimated 15,744 megawatt-hours (MWh) of energy per year based on run of the canal flows, and would help meet regional power demands in the future. Power from the proposed project would be distributed through Municipal Energy Agency of Nebraska's (MEAN) facilities in Colorado, Nebraska, and Wyoming.

The life of the project is expected to extend well beyond 50 years, and could thus provide UVWUA a long-term, reliable revenue stream. After the project debt is paid, the long-term life for which the project will be designed results in revenues to the UVWUA to help pay for Uncompahgre Project operation and maintenance costs. There would also be short-term employment and spending on goods, services, and materials during the construction period, benefitting local communities and businesses as well as increasing tax revenues from taxes collected on these purchases.

Wildlife and Vegetation – Much of the project area has been disturbed in the past with significant earth moving due to the original construction of the South Canal, canal rehabilitation projects over the years, access roads and storage areas, disposal of spoil material, and development of borrow areas. The UVWUA would request authorization from the Army Corps of Engineers for the construction activities under Nationwide Permit No. 17 Hydropower Projects, and any permit restrictions included in the ACOE authorization would be incorporated as environmental commitments.

The project area is within winter and severe winter range for both mule deer and elk and is also considered a winter concentration area for elk. Power line construction activities will be restricted between January 1<sup>st</sup> and March 31<sup>st</sup> to minimize disturbances to local deer and elk populations.

There is a raptor nest in one of the cottonwood trees supported by the riparian area adjacent to the proposed power line. Inspection of the nest found no activity (no birds, green vegetation or droppings), indicating this is not an active nest. Construction of the power line will not remove or disturb the inactive raptor nest.

Temporary impacts to wildlife and vegetation would occur due to the construction of the hydropower facilities. Approximately 12 acres would be disturbed during construction of the facilities.

Threatened and Endangered Species – No federally threatened, endangered, or candidate species were documented within the project area. Threatened and Endangered Plant Species inventories conducted by Bio-Logic, Inc. on September 18-19 and October 9, 2013, and by the Bureau of Land Management's Uncompahgre Field Office on April 29 and May 5, 2014 found no occurrence of Clay-Loving Wild Buckwheat (*Eriogonum pelinophilum*) or Colorado Hookless Cactus (*Sclerocactus glaucus*). While the vegetation communities of the surrounding hillsides were typical of suitable Clay-loving buckwheat habitat, the hills themselves were much too steep to be indicative of the plant, which prefers more gradual slopes.

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, the Fish and Wildlife Service issued a Programmatic Biological Opinion (PBO) for the Gunnison River and effects on the endangered Colorado pikeminnow, humpback chub, bonytail, and razorback sucker and their critical habitats. Consultation for the Gunnison River basin includes operation and depletions associated with existing Reclamation projects, including the Uncompahgre Project, other Federal projects, and existing non-federal water depletions.

Potential habitat for other listed species does not occur in areas affected by the hydropower project.

Cultural Resources – Reclamation has determined that the proposed project will adversely affect National Historic Preservation Act (NHPA) eligible cultural resources and has consulted with the Colorado State Historic Preservation Officer (SHPO). A Memorandum of Agreement (MOA) between Reclamation and the SHPO is being finalized, and mitigation for adverse effects will include avoiding sites where possible and completion of photo documentation according to SHPO's Level II Documentation standards. The MOA will be executed and mitigation completed prior to commencing construction activities that impact the National Register of Historic Places eligible resources.

Air Quality and Noise – There would be minor noise impacts during excavation for the powerplant and from construction traffic. The need to blast rock during construction of the penstock is likely. The turbine/generator represents a new potential noise source, however they will be fully enclosed and are not located near existing structures. After construction, the distance from and enclosure of equipment to any residences will drop noise associated with operations of the hydropower facilities below detectable levels.

There would be short-term dust impacts during excavation work, although this is predicted to be insignificant because dust abatement Best Management Practices would be followed during construction and operation of the hydropower facilities. There would be no long-term adverse impacts on air quality due to operation and maintenance of the facilities. There would be a beneficial offset of emissions of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases.

## Environmental Commitments

The following measures will be implemented and followed by UVWUA and its contractors. The LOPP requires that these commitments be followed and met. An environmental commitment plan will be prepared to document how environmental commitments and mitigation measures will be implemented during design, construction, and operation of the Project.

- The construction and operation of the hydropower project is required to be operated in a manner that does not interfere with the irrigation supplies or maintenance of the Uncompahgre Project.
- Existing access roads will be used to access the construction areas. No new access roads will be constructed. A new bridge structure has already been constructed by UVWUA across the South Canal between the intake structure and the powerhouse to allow for improved access.
- Erosion-control Best Management Practices for drainage and sediment control will be implemented to prevent or reduce nonpoint source pollution during and following construction.
- All construction equipment shall be power-washed and free of soil and debris prior to entering the construction site to reduce the spread of noxious and unwanted weeds.
- Topsoil, where available, will be stockpiled during construction for later use in re-vegetation. Disturbed areas will be contoured to reduce erosion and facilitate re-vegetation. Disturbed areas will be re-seeded with a Reclamation approved seed mixture which includes greasewood and sagebrush. The plan for re-vegetation and related erosion control/re-contouring and implementation will require approval by Reclamation.
- Dust abatement Best Management Practices will be undertaken in all areas disturbed during construction.
- Fuel storage, equipment maintenance, and fueling procedures will be developed to minimize the risk of spills and the impacts from these incidents. A Spill Prevention Control and Countermeasure Plan (SPCC) will be prepared prior to construction.
- UVWUA will be responsible for obtaining any required Federal, state, or local permits to construct and operate the project, including permits under the Clean Water Act (Section 402 and 404 permits) which may be needed for dewatering or other activities.
- In the event of discovery of threatened or endangered species, the UVWUA will immediately cease all ground-disturbing activities in the vicinity and notify Reclamation. Work will not be resumed until approved by Reclamation.
- In the event of a change in project plans which would require work outside of areas inventoried for clay-loving wild buckwheat, Reclamation will be consulted to determine if additional surveys are required.
- To minimize potential impacts to wintering mule deer and elk, construction activities associated with the new power line will be restricted between January 1<sup>st</sup> and March 31<sup>st</sup>. Power line construction during the January-March time period may occur during a mild winter, but only after additional discussions with the local Colorado Parks and Wildlife Office.

- All new power lines and power poles will follow the recommended standards as outlined in the *Avian Protection Plan Guidelines* developed by the US Fish and Wildlife Service and Industry (Edison Electric Institute 2005). A copy these standards can be viewed at: [http://www.aplic.org/uploads/files/2634/APPguidelines\\_final-draft\\_Aprl2005.pdf](http://www.aplic.org/uploads/files/2634/APPguidelines_final-draft_Aprl2005.pdf)
- If the power line construction is delayed until after March 1<sup>st</sup>, the nearby raptor nest should be revisited. If active, all construction activities within 1/8 mile of the nest should be avoided until after the nest fledges.
- In the event of discovery of evidence of possible cultural or paleontological resources, the UVWUA will immediately cease all ground-disturbing activities in the vicinity and notify Reclamation. Work will not be resumed until approved by Reclamation.
- Cultural mitigation measures agreed to in the Memorandum of Agreement with the Colorado State Historic Preservation Officer will be completed by UVWUA before project construction commences.
- If any additional areas of impact (for example: access roads, borrow pits, or waste areas) are identified during the course of the undertaking, they will be inventoried for cultural resources and consulted on with the SHPO. No construction work will occur at or near the additional impact area until this consultation is completed.
- Powerhouses and substations will be non-reflective and painted to blend with the project area background.
- There will be no increase in diversions from the Gunnison River solely for hydropower use permitted under the LOPP. The hydropower facility will be operated based on irrigation diversion patterns.
- Irrigation supplies and canal maintenance access will be maintained during construction at all times. Water supplies to Fairview Reservoir will not be interrupted.
- The UVWUA will be responsible for noxious weed control within the limits of the facility for the life of the project. UVWUA is responsible for consultation with Reclamation for acceptable weed control methods, including pesticides/herbicides approved for use on public land. Use of pesticides/herbicides will comply with the applicable Federal and state laws. Pesticides/herbicides will be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. A copy of the Montrose County Weed Management Plan is available at: <http://www.montrosecounty.net/162/Weed-Mitigation>.
- Disturbance to nearby shrubs and other ground cover will be kept to a minimum, with disturbance occurring only in those areas which are absolutely necessary for project construction.

### **Conclusions**

Based on the analysis of environmental impacts, coordination with the Colorado State Historic Preservation Officer and other State, Federal and local agencies, and a review of comments received, Reclamation concludes that implementation of the South Canal Drop 4 Hydropower Project will not result in significant impacts on the quality of the human environment or the natural resources in the project area.

This Finding of No Significant Impact has, therefore, been prepared and is submitted to document environmental review and evaluation of the proposed action in compliance with the National Environmental Policy Act of 1969, as amended.

Prepared By:

  
Jennifer Hamilton  
Environmental Protection Specialist

8-27-14  
Date

Reviewed By:

  
Terence Stroh,  
Environmental and Planning Group Chief

8-27-14  
Date

Approved By:

  
Ed Warner, Area Manager  
Western Colorado Area Office

8-27-14  
Date

