

RECLAMATION

Managing Water in the West

Tri-County Water Hydropower Project Finding of No Significant Impact



December 2011

WCAO-GJ-FONSI-11-3
U.S. Department of the Interior
Bureau of Reclamation

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Western Colorado Area Office
Grand Junction, Colorado

FINDING OF NO SIGNIFICANT IMPACT

TRI-COUNTY WATER HYDROPOWER PROJECT

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 (Reclamation) has prepared an Environmental Assessment (EA) for the proposed Tri-County Water Hydropower Project (Project). The EA assessed 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 Tri-County Water Conservancy District has requested a Lease of Power Privilege (LOPP) to construct and operate a hydropower project at Ridgway Dam in Ouray County, westcentral Colorado. Ridgway Dam is the storage unit of the Dallas Creek Project, a Bureau of Reclamation project authorized under the Colorado River Basin Project Act of 1968 (Public Law 90-537) as a participating project under the Colorado River Storage Project Act of 1956.

Purpose and Need

A LOPP is needed to develop hydropower at Ridgway Dam. Current federal policy encourages non-Federal development of environmentally sustainable hydropower potential on federal water resource projects. The LOPP would ensure that the development of hydropower would be implemented consistent with established authorities and operation plans of the Dallas Creek Project. The purpose of the Project is to provide a clean, renewable energy source that is locally controlled.

Scoping/Public Involvement

Initial scoping for the draft EA included a public scoping meeting held in April, 2011 in Ridgway, Colorado. The Project was described along with the EA process, and questions and concerns were discussed and answered at the meeting. Public input was provided at the meeting or later by email and letter.

A draft EA was distributed for review and comment in October 2011 and eight comments were received. The State Historic Preservation Officer concurred that historical and archeological sites would not be affected. In addition it was recommended that the project include provisions to protect unidentified cultural resources that might be discovered during construction. The Fish and Wildlife Service concurred that the Project would not affect endangered species.

Other comments were received from Ouray County, the Colorado Division of Parks and Wildlife, Trout Unlimited, Western Resource Advocates, High Country Citizens Alliance, and the Tri-County Water Conservancy. These comments were generally supportive of the Project while emphasizing the need to maintain and clarify environmental commitments. Several groups requested that the Project consider the opportunity to increase winter releases from Ridgway Reservoir that have limited the downstream cold water fishery

No Action Alternative

Under the No Action Alternative, Reclamation would not issue a LOPP at this time and the hydropower potential at Ridgway Dam would not be realized.

Proposed Action Alternative

Under the Proposed Action, Reclamation will execute a LOPP to construct and operate hydropower facilities at Ridgway Dam.

Conceptual designs call for a new 66-inch steel penstock and a new 24-inch penstock directing reservoir releases to a powerhouse located near the foot of the dam. The penstocks would branch from the existing outlet works and would run about 65 feet to the new powerhouse. The design calls for two horizontal Francis turbines with a combined rated capacity of 7 megawatts (MW) of power and producing an average of 22,600 megawatt-hours (MWh) of energy per year. The units would be different sizes in order to take maximum advantage of the reservoir discharges that vary seasonally. The larger of the two would generate 4.9 MW and would operate during the irrigation season, using flows ranging from 100 to 370 cubic feet per second (cfs). The smaller turbine would probably operate year-round and would operate over a flow range of 40 to 140 cfs.

Power would be distributed to an existing 115-kV powerline along U.S. Highway 550, via an upgraded 0.8 mile powerline.

The powerplant would be operated using normal operational releases from Ridgway Reservoir. Minimum streamflow commitments for the Dallas Creek Project would be maintained and downstream releases for irrigation, and municipal and industrial water would not be altered by the Project. The powerplant would not be operated for peaking power; in other words, daily fluctuations in releases for hydropower would not be permitted.

Summary of Findings

The No Action Alternative does not meet the purpose and need as described above. Under the proposed action, Reclamation would issue a LOPP to permit the hydropower facilities. Below is a summary of finding from the final EA associated with construction, operation, and maintenance of the Project.

Reservoir Operations and Water Uses: There would be no changes in reservoir operations for the hydropower project. Authorized reservoir operations for irrigation, municipal and industrial water supply, recreation, and fisheries would not be affected.

Energy and Socioeconomic Conditions: The Project would produce 22,600 megawatt-hours (MWh) of energy per year and would help meet increasing regional power demands in the future. The electricity generated by the Project would provide Tri-County a source of revenue that can be used to defray annual operating expenses, may assist in the repayment of the Dallas Creek Project, and may provide the utility that ultimately purchases the power an opportunity to help diversify its generating portfolio and to meet legislatively-mandated requirements for renewable energy sources.

Tri-County does not predict additional permanent staff to operate or maintain the new hydropower facilities. There would be short-term employment and spending on goods, services, and materials during the construction period with an overall increase in the level of income in the county during the construction phase. This would benefit local communities and businesses, as well as increase taxes collected on these purchases

Recreation: Ridgway Reservoir is the key feature of Ridgway State Park. Powerplant and penstock construction would occur in an area closed to public use. Recreation facilities and visitor use would not be affected by operation of the Project. During construction there would be short term effects on usage of one pedestrian trail and occasional periods of traffic control during delivery of materials to the work site.

Fish and Wildlife Resources: During construction, there would be short term increases in turbidity in the Uncompahgre River due to cofferdam installation and removal. In the long-term the Project should benefit the downstream fishery by reducing an existing nitrogen supersaturation problem. Temporary disturbance of wildlife habitat would occur as an existing 0.8 mile powerline is upgraded but no long term effects are projected. There are no effects on wetlands projected.

Threatened and Endangered Species: Reclamation has informally consulted with the Fish and Wildlife Service and there would be no effect on threatened or endangered species.

Cultural Resources: There have been no cultural resources identified that could be impacted by the proposed action. The State Historic Preservation Officer has concurred with the conclusion of no historic properties affected. Contract specifications will require halting work, if cultural resources are discovered during construction, until the resource can be evaluated and protected.

Indian Trust Resources: There have been no Indian Trust Resources identified in the impact area.

Public Safety: Traffic control would be coordinated with State Park managers to avoid any potential safety concerns. With appropriate signage and access control during construction, the action is predicted to have no effect on public safety.

Environmental Commitments

The following measures will be implemented and followed by Tri-County 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.

Design and Construction:

- Approval of final designs by Reclamation will be necessary prior to any construction.
- Construction equipment and supply staging areas will be located within existing disturbed areas and within the Primary Jurisdiction Area.
- Erosion-control Best Management Practices for drainage and sediment control will be implemented to prevent or reduce nonpoint source pollution during excavation and construction for the powerplant.
- Excavated material and cofferdam material will be disposed of in previously disturbed areas approved by Reclamation.
- Dust control will be undertaken in all areas disturbed by construction.
- Dewatering of the stilling basin will be conducted in such a manner as to prevent sediment and other pollution from entering the river downstream.
- A hazardous spill plan will be required from the contractor prior to the start of construction indicating actions taken in case of a spill and preventive measures.
- The facility will incorporate industry standard containment measures to prevent the release of any oils to the environment in the event of equipment leakage or failure.
- Streamflows will be maintained at normal levels during construction with either the river bypass or outlet works available for use at all times.

- Tri-County or its contractor will be responsible for obtaining any required permits under the Clean Water Act (Section 402 and 404 permits) or any other federal, state or local permits.
- In the event of discovery of evidence of possible cultural or paleontological resources, the contractor shall immediately cease all ground-disturbing activities in the vicinity of the discovery and notify Tri-County and Reclamation and work shall not be resumed until approved by Reclamation.
- Existing recreation area access will be maintained at all times with the exception that the Enchanted Mesa Trail may be closed for public safety during powerline construction. Delivery of heavy equipment, pipe material, powerplant equipment and other large truck loads will be coordinated with Colorado Division of Parks and Wildlife in advance of delivery to avoid any potential safety and traffic problems at the entrance to Ridgway State Park. Periods of high recreation traffic will be avoided by these large truck loads. Traffic control will be provided by the contractor when necessary for public safety.
- The Migratory Bird Treaty Act will be complied with during powerline construction either by doing construction outside of the nesting period or by inventory/avoidance during the nesting period.
- Powerline will be designed raptor-proof.
- Any land disturbed by powerline construction will be smoothed, treated for erosion, and reseeded.
- Powerhouse and substation will be non-reflective and painted to blend with the color and architecture of the surrounding existing structures or background.
- Substation will be located at the dam and designed to minimize visual impacts.
- Streamflows will be maintained during testing of the powerplant.
- If there is unanticipated damage to roadways in Ridgway State Park due to construction traffic, the damage will be repaired by Tri-County or its contractor.

Operations:

- Daily fluctuation of releases for the purpose of providing peaking power will not be permitted.
- The hydropower facility will be operated based on historic release patterns from the reservoir and the Dallas Creek Project authorized water supply will have priority of water use.
- Minimum streamflows and inactive reservoir storage called for in the Dallas Creek Final EIS will be maintained.
- The hydropower facilities will be designed and operated so that streamflows (quantity and timing) will not be interrupted in the event that powerplants go off-line; and the Project will be designed and operated so that streamflows are not interrupted during periodic gate exercises or tests as described in the EA.
- Nitrogen supersaturation levels will be monitored by Reclamation before and after the hydropower is developed.
- Irrigation water will be delivered to the State Park through existing or modified facilities.

Conclusions

Based on a review of comments received and analysis of environmental impacts, Reclamation concludes that issuance of a LOPP and construction and operation of the Tri-County Hydropower Project, with implementation of the above described environmental commitments, will not have a significant impact 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:



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12-20-2011

Date

Approved By:



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12/20/11

Date

