

RECLAMATION

Managing Water in the West

Tri-County Water Hydropower Project- Interconnection Facilities Finding of No Significant Impact



WCAO-GJ-FONSI-13-1
U.S. Department of the Interior
Bureau of Reclamation

March 2013

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

FINDING OF NO SIGNIFICANT IMPACT

**TRI-COUNTY WATER HYDROPOWER PROJECT
INTERCONNECTION FACILITIES**

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 a supplemental Environmental Assessment (EA) for the proposed Tri-County Water Hydropower Project (Project). The EA assessed additional information on interconnection of the hydropower project to the electrical grid. Based on the following, Reclamation has determined that the proposed action of permitting the interconnection facilities through a license agreement, with implemented environmental commitments, will not result in a significant impact on the human environment.

Background

The Tri-County Water Conservancy District is constructing a hydropower project at Ridgway Dam in Ouray County, westcentral Colorado under a Lease of Power Privilege with the Bureau of Reclamation. Ridgway Dam is the storage unit of the Dallas Creek Project, a 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. A final Environmental Assessment and Finding of No Significant Impact have been completed on the hydropower facilities^a. A supplemental assessment has been completed that addresses additional details and information on facilities to connect the hydropower project to the regional electrical grid.

^a Bureau of Reclamation. 2011. Final Environmental Assessment-Tri-County Water Hydropower Project. Western Colorado Area Office. Grand Junction CO.

Purpose and Need

Facilities are needed to interconnect the Tri-County Water Hydropower Project (Project) to the existing 115-kV transmission line along U.S. Highway 550. A license agreement between Reclamation and Tri-State Generation and Transmission Association (Tri-State) is needed to permit the construction and operation of the interconnection facilities. In addition, a Memorandum of Agreement (MOA) is needed with Tri-County to relocate dry storage facilities and utilities operated by Colorado Parks and Wildlife (CPW) as part of Ridgway State Park.

Scoping/Public Involvement

Scoping for the overall hydropower facility was conducted in 2011 and additional scoping of interconnection facilities continued into 2012 and 2013.

In general, there was support for development of hydropower at Ridgway Dam. Protection of the existing water supplies, fishery, and recreation resources are important concerns. Specifically related to interconnection facilities, there are concerns with visual impacts, particularly in the vicinity of U.S. Highway 550 and existing recreation facilities.

Alternatives

Alternatives for an Interconnection 115kV Switching Station (Switching Station) facility initially included three general alternatives. Two of these alternatives have been eliminated from consideration as follows:

- Consideration was given to constructing switching facilities near the base of Ridgway Dam with a new transmission line being constructed to the existing 115-kV line along U.S. Highway 550. This alternative was eliminated because there was not adequate space and topography to construct the facilities at the base of the dam.
- Consideration was given to constructing the switching facilities along U.S. Highway 550. This alternative was eliminated because of visual impacts in the highway corridor and because of topographic and drainage limitations that would result in significant additional expenses.

The preferred alternative is shown on Figure 1 and includes:

- The Interconnection 115kV Switching Station (Cow Creek Switching Station) will be located at the existing dry storage area currently used by Ridgway State Park. The site is approximately 1,200 feet north of Ridgway Dam. The Switching Station will be graveled and fenced and will contain electrical components needed to support, switch, and protect the interconnection of the hydropower project. The station will be

approximately two acres in size. The facility will be interconnected with the regional power grid.

- A 900-foot long double-circuit transmission line will run from the Switching Station to the existing 115kV transmission line along U.S. Highway 550. Two transmission line structures (poles), approximately 65-70 feet tall, will lead to a 75-foot structure near the highway. The 75-foot structure will replace an existing wooden pole structure. New structures will be single, steel poles. The poles are Corten steel which has a rusty, weathered appearance that will make them less visually apparent. The transmission line will be cut or “opened” and redirected into and out of the new Switching Station.
- It is anticipated that two outages of the existing 115-kV line along U.S. Highway 550 will be required to interconnect the new facilities; however, service to customers should not be interrupted.
- An access road will be constructed to build and maintain the transmission line as shown on Figure 1. The initial portion of this access, along an existing road beginning at the paved Ridgway State Park road, will be built within a 15-foot corridor. The remainder of the access road will be built within a 50-foot wide corridor.

The location of the Switching Station is now being used as dry storage for Ridgway State Park, and other park facilities are in or near the station site. All displaced park facilities will be replaced/relocated by Tri-County in-kind as needed:

- The existing dry storage area will be replaced with a new area of approximately two acres. This new park area will be graveled and fenced. Two entrance gates will be included.
- Sewer, water, and telephone lines will be relocated as necessary at the Switching Station.
- Access to the sewage aeration facility will be provided along the south and east side of the Switching Station site to replace existing access.
- The irrigation system filtration system will be relocated from the new storage area.
- Buried telephone lines will be relocated as needed.

Mitigation measures included in the project are included in Attachment A.

Summary of Findings

Reclamation will issue a License Agreement to Tri-State to permit construction and operation of the interconnection facilities and will sign an MOU with Tri-County to relocate state park facilities. Below is a summary of finding from the final EA associated with construction, operation, and maintenance of the facilities.

Impacts of the overall hydropower project are described in the Final Environmental Assessment-Tri-County Water Hydropower Project.

Several resources would not be affected by the interconnection facilities and are not discussed further:

- Dallas Creek Project operations and water resources, including Ridgway Reservoir operations and flows in the Uncompahgre River.
- Fisheries
- Indian Trust Assets and Environmental Justice

Energy and Socioeconomic Conditions: Tri-County and Tri-State do not predict additional permanent staff to operate or maintain the new hydropower and interconnection facilities. There would be short-term employment and spending on goods, services, and materials during the construction period of the \$3-\$4 million interconnection project 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.

There would be minor impacts to recreation during the construction phase but overall visitation is not expected to be affected and there should be no long-term impact on visitor numbers or the quality of the recreation experience.

Water supplies from Ridgway Reservoir for municipal, industrial and recreation purposes would not be affected by hydropower development.

Fish and Wildlife Resources: Vegetation impacts would be limited to work areas along the transmission line and the new storage area. The new access road could impact approximately 50 pinon and juniper trees on 0.6 acres and 0.6 acres of grass/sagebrush. In the transmission line route, taller trees will be removed to provide adequate clearance (20 feet) for the transmission lines. The relocation of the dry storage area would remove two acres of grassland with scattered sagebrush, unimproved roadways, and two juniper trees.

Wildlife impacts would be minor with approximately two acres of winter range permanently affected. Movement corridors would be maintained. The transmission line would be designed raptor-proof to avoid electrocution of raptors. The Migratory Bird Treaty Act will be complied with during construction either by doing construction outside of the nesting period or by inventory/avoidance during the nesting period.

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.

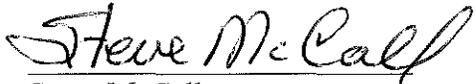
Public Safety: Traffic control would be coordinated with State Park managers to avoid any potential safety concerns. With appropriate signage and access control during construction, the action is predicted to have no effect on public safety.

Conclusions

No comments were received on the supplemental EA. Based on the analysis of environmental impacts, Reclamation concludes that issuance of a license agreement and MOU to permit construction and operation of Tri-County Hydropower Project interconnection facilities, with implementation of the 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:



Steve McCall
Environmental and Planning Group

3-22-2013

Date

Approved By:



Ed Warner, Area Manager
Western Colorado Area Office

3-22-13

Date

Attachment A

MITIGATION MEASURES AND ENVIRONMENTAL COMMITMENTS

The following measures will be included in the project plan and will be included in the license agreement with Tri-State or the MOA with Tri-County.

Tri-State Responsibilities:

- Reclamation approval of final designs of the new access road is required prior to construction.
- The existing deer migration/movement corridor at the south end of proposed Switching Station will continue to be maintained at a minimum of the existing width.
- The access road for transmission line construction will not interfere with access to the Enchanted Mesa trail (although there will be periodic closures of the trail during construction).
- The access road for the transmission line construction and operation will not be gated so as not to interfere with big game movement.
- The corridor for the access road will vary from 15 feet to 50 feet as shown in Attachment A and will not interfere with the existing constructed wetlands or utility boxes/cabinets. A minimum 4-foot buffer zone between the edge of the road and the elevation break to the wetlands will be maintained as well as between the road and existing utility boxes/cabinets.
- Vegetation clearing for the transmission line will be conducted to keep incompatible vegetation from growing near the energized conductors. The corridor will be managed to support stable, low growth plant communities.
- Vegetation removed for the access road and transmission line will be chipped and spread along the corridor. Depth of spread material will not exceed 3 inches.
- Erosion control and revegetation will be completed along areas disturbed by access road and transmission line construction. The erosion control/revegetation plan will need approval by Reclamation prior to construction of those features.
- In order to minimize avian electrocution and collision risk, Tri-State shall implement measures outlined in the company's Avian Protection Plan (APP), which encompasses the: (1) APP Guidelines published by the Avian Power Line Interaction Committee (APLIC) and U.S. Fish and Wildlife Service (APLIC 2005); (2) standards developed by APLIC to minimize effects to birds from power line operation (APLIC 2006); (3) standards developed by APLIC to minimize collision risks to birds from overhead lines (APLIC 2012); and (4) National Electric Safety Code (NESC) requirements, which specify electric conductor clearances.
- A stormwater management plan will be developed and implemented for the Switching Station and other facilities.

- Construction equipment and supplies will be located within a designated staging area.
- Waste material such as concrete, fencing material, and other inorganic material will be disposed of off-site at an approved landfill.
- Dust control will be undertaken in all areas disturbed by construction.
- The facility will incorporate industry standard containment measures to prevent the release of any oils or other hazardous materials or chemicals to the environment in the event of equipment leakage or failure.
- Tri-State will need to submit an integrated pest management plan for approval by Reclamation prior to use. Restricted use pesticides may not be approved.
- Contract specifications will require halting work if unidentified cultural/archeological resources are discovered during construction until the resource can be evaluated under the National Historic Preservation Act and the terms of the National Register of Historic Places eligibility criteria in consultation with the State Historic Preservation Officer.
- Delivery of heavy equipment, power poles, Switching Station equipment and other large truck loads will be coordinated with CPW 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 transmission line and access road construction either by doing construction outside of the nesting period (between April 1 and July 15) or by inventory/avoidance as directed by Reclamation during the nesting period.
- If there is damage to roadways or other facilities of Ridgway State Park due to construction traffic, the damage will be repaired by Tri-State or its contractor.

Tri-County Responsibilities:

- Ridgway State Park's dry storage area and utility facilities will be replaced in-kind, and access to aeration facility will be replaced. The replacement dry storage area (compound fencing, gates, access ramps, grading, gravelling) will be built and in place prior to removal of the old storage area so that park use may continue uninterrupted.
- Reclamation approval of the final designs/site plan of relocated dry storage area and relocation of utilities is required prior to construction of these features. The designs/site plans will provide adequate detail depicting the location of facilities (water lines, phone lines, etc.). The relocated utility lines will meet industry standards.
- The new dry storage area will be constructed to a similar standard as the existing dry storage area. Topsoil (4-inches) will be removed and stockpiled. Site will be graded to provide a cross slope not to exceed 2 percent for drainage, the sub-grade will be compacted; an 8- inch base of class 2 material will be added and compacted, then topped with 6 inches of compacted class 6 aggregate. A commercial grade 8-foot chain link fence equal to the existing security fence will enclose the dry storage area, with two double gated openings, locations to be determined by the CPW Manager. Access ramps

from the existing paved road will be provided to accommodate safe vehicle and equipment access into the fenced compound.

- Existing water lines (treated domestic water lines and raw water irrigation lines from the dam), sewer lines, and phone line that may be impacted by the project including the irrigation system filtration system on the raw water irrigation line, will be relocated. Tri-County will provide designs and site plans for relocating these facilities to Reclamation for approval prior to work being done. The designs/site plans will show the new location for the relocated water and sewer lines, and phone line complete with detailed information pertaining to their relocation. If the on ground relocation does not match the designs/site plans, then as-built drawings will be required.
- A migration/movement corridor on the south (25 feet) and west sides of the new Ridgway State Park storage area will be provided. On the west side of the new storage area, a buffer zone of at least 20 feet between the fence and the crest of the hill will be maintained.
- A tree replacement plan to mitigate trees removed during the construction of the access road and transmission line will be developed and implemented. The plan will require approval by Reclamation. Twenty five replacement trees (minimum 1-inch diameter) will be required with location determined by CPW within the Cow Creek Recreation Area. CPW will water and maintain the trees.
- Work plans will require halting work if unidentified cultural/archeological resources are discovered during construction until the resource can be evaluated under the National Historic Preservation Act and the terms of the National Register of Historic Places eligibility criteria in consultation with the State Historic Preservation Officer.