

**Finding of No Significant Impact  
WCAO-GJ-FONSI-13-02**

**Orchard Mesa Irrigation District  
Canal System Improvement Project**

**August 2013**



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

**FINDING OF NO SIGNIFICANT IMPACT**

**ORCHARD MESA IRRIGATION DISTRICT  
CANAL SYSTEM IMPROVEMENT 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 Orchard Mesa Irrigation District Canal Improvement Project (Project). The EA assesses a No Action and Proposed Action Alternative. Based on the following, Reclamation has determined that the proposed action with implemented mitigation measures will not result in a significant impact on the human environment.

**Background**

On behalf of the Upper Colorado River Basin Endangered Fish Recovery Program (Recovery Program), Reclamation proposes to construct system improvements for the Orchard Mesa Irrigation District (OMID) Division of the Grand Valley Project. The improvements will provide a more reliable water supply throughout the canal system and generate an estimated 17,000 acre-feet of water savings per year. The savings result from reduced main canal and lateral spills, recovering spills from main canals in urban areas, and elimination of spills from the Mutual Mesa Lateral (MML). Conserved water would then be redirected to the Grand Valley Power Plant (power plant) to increase hydropower generation and river flows in the 15-Mile Reach<sup>a</sup>. Existing water shortages to urban and agricultural water users would also be reduced. Reclamation and OMID will enter into an agreement for operations and maintenance of the system improvements.

**Purpose and Need**

The U.S. Fish and Wildlife Service identified the need for additional flows within the 15-Mile Reach<sup>a</sup> (Service 1999) and the Recovery Program has identified the proposed project as a source

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<sup>a</sup> The 15-Mile Reach is the portion of the Colorado River defined as from River Mile 171 to River Mile 185 (Grand Valley Irrigation Company Diversion Dam near Palisade, Colorado to the confluence with the Gunnison River).

to contribute additional flows. The purpose of the project is to assist in recovery of four endangered fishes. Reclamation prepared this EA in cooperation with other federal and state agencies to comply with the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and related U.S. Department of the Interior policies and regulations.

### **Scoping/Public Involvement**

A scoping letter was mailed to interested parties on November 25, 2009, and an open house was held at the Mesa View Elementary School on December 3, 2009 to discuss and review the proposed project.

A draft EA was distributed for public review (see Final EA Appendix A-Distribution List) and comment on July 10, 2013. Reclamation requested comments be submitted by August 2, 2013. Reclamation received only two comment letters on the draft document. Comments were addressed in Chapter 4 of the Final EA and where appropriate, changes were made.

### **No Action Alternative**

Under the No Action Alternative, Reclamation would not implement canal system improvements on the Orchard Mesa Irrigation District (OMID) system. Seasonal water shortages would continue to occur on the lower end of the system and water savings would not contribute flows needed for the 15-Mile Reach to assist in recovery of the endangered fishes.

### **Proposed Action Alternative**

Under the Proposed Action, Reclamation would construct system improvements for the OMID component of the Grand Valley Project. The improvements would 1) provide a more reliable water supply throughout the canal system and throughout the irrigation season, and 2) produce an estimated 17,000 ac-ft. of water savings per year. Conserved water would be redirected to the Grand Valley Power Plant resulting in increased hydropower generation and increased flows in the 15-Mile Reach.

Proposed Improvements include:

- Construction of a new 80-100 ac-ft. regulating reservoir on approximately 15 acres of land on central Orchard Mesa (**Regulating Reservoir**),
- Improve water level control in Orchard Mesa Canals No. 1 & 2 (**Check Structures and Other Improvements**),
- Installation of a simple remote monitoring system and electronic flow meters (**SCADA System**),
- Increased pump capacity at existing B ¼ Rd Pump (**B ¼ Pump**),

- Construction of interties between the Canals No. 1 and No. 2 to help balance flows in the irrigation system and upgrades to canal end spills (**Interties and Upgrades to Canal End Spills**),
- Reduced canal and lateral seepage (**Lining and Piping**), and
- Improved operational procedures (**Improved Operations**)

### Summary of Findings

Reclamation conducted analysis on a wide range of environmental criteria for the No Action and Proposed Action alternatives.

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

Under the Proposed Action, Reclamation will construct and OMID will operate and maintain the canal system improvements. The OMID system with improvements will be used to improve irrigation delivery efficiency, which in turn reduces the amount of water that needs to be lifted to the canals to meet irrigation demands in the OMID service area. These improvements, with adequate water management, are estimated to result in approximately 17,000 acre-feet of water savings per year, which will be returned to the 15-Mile reach of the Colorado River via the Grand Valley Power Plant. Providing additional water to improve flow conditions in the 15-Mile Reach is needed to continue sufficient progress towards recovery of the endangered Colorado River fishes as identified by the Fish and Wildlife Service and the Upper Colorado River Endangered Fish Program.

Below is a summary of findings from the Final EA associated with construction, operation, and maintenance of the OMID Canal System Improvement Project.

Water Rights and Uses— Under the Proposed Action, implementation of the proposed OMID system improvements would return an average of 17,000 acre feet per year to the upper portion of the 15-Mile Reach via the Grand Valley Power Plant, while improving the equitable distribution and reliability of water service. The proposed action will also reduce the amount of water needed for pumping to lift water from the power canal to Canals No. 1 & 2. However, the water to operate the pumps already contributes to the 15-Mile Reach unless the Orchard Mesa Check is in operation.

During most periods, the reduction in irrigation demand will result in increased flows in the 15-Mile Reach. Under most conditions, water not needed for irrigation or hydraulic pumping would be returned to the 15-Mile Reach through the Grand Valley Power Plant. However, under certain low flow conditions, the saved water may be used by OMID or may accrue to other irrigation water users in the Grand Valley instead of the 15-Mile Reach.

The proposed OMID improvement may also allow the additional diversion of water (over and above historical amounts) by upstream water rights that are junior to the OMID water right but

are senior to the power plant. A summary of potential benefits to these water users is listed below<sup>b</sup>:

- The irrigation water supply available at the Grand Valley Diversion Dam will increase by the amount of the total OMID irrigation diversion reduction (106 cfs).
- The increased irrigation supply will allow either a reduction in Green Mountain Reservoir HUP irrigation releases, or a reduction in the amount of water diverted by the Orchard Mesa Check.
- Additional water retained in the HUP will reduce potential irrigation shortages later in the year and may provide as much as 19,000 acre-feet of additional irrigation supply in critical dry years such as 1977 or 2002.
- For the Busk Ivanhoe system, diversion records reflect late summer diversions by the project do not exceed 2 cfs and are typically less than 1 cfs. It is estimated, at a maximum, that the change in a Cameo Call may keep the Buck Ivanhoe system in priority for several additional weeks in a dry year such as 1977 or 2002, during which time the project may realize additional diversion of less than 100 acre-feet. In most cases, the Busk Ivanhoe Project diversion are in-priority during the irrigation season and the potential change in priority date of a Cameo Call will not change the amount of water diverted by the project.

Water Quality— Water quality is within an acceptable range; however selenium and copper concentrations are elevated in several months at the Chipeta Golf Course and Duck Pond Park. Neither of these locations contributes flows directly to the B ¼ Pump and therefore the proposed action is predicted to result in no change to existing water quality used for irrigation. However, it should be noted that if, in the future, land uses upstream of the B ¼ pump change substantially, changes in water quality may also occur. If this drainage area becomes more urban and/or industrial in the future, water quality may be impacted and suspending pumping at the B ¼ Pump for 24 hours after a rainfall event to maintain the water quality in the lower reach of Canal No. 1 may be appropriate to allow surface runoff to flow through the system prior to resuming pump operations.

Land Use— The proposed action complements both City and County long-range plans by improving the existing irrigation delivery system on Orchard Mesa and supporting existing agriculture. This complements current and future land uses in the lower-third of the OMID service area, by allowing OMID to accommodate daily and hourly fluctuations in irrigation demands in an urban residential setting. The proposed action will convert approximately 10 acres of irrigated field into a permanent regulating reservoir. OMID would operate and maintain the regulating reservoir to respond to changes in irrigation demands in the lower OMID delivery system.

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<sup>b</sup> From *OMID Efficiency Improvements, Operation and Allocation of Potential Water Savings*. Prepared for 10825 Water Supply Stakeholders. Grand River Consulting Corporation, Glenwood Spring, CO. September 25, 2008.

It is anticipated that the majority of construction activities can be accomplished using the existing public and canal operation & maintenance roads. Any new right of way will be handled on a case by case basis and would be negotiated and acquired by OMID or Reclamation. If damage occurs to existing crops, buildings, or structures during construction, payment will be made by the United States to the landowner on the basis of an appraisal approved by the United States, or the United States will, at its option, restore the property to the condition which existed prior to construction.

Fish and Wildlife Resources— The proposed action will result in some reduced fish and wildlife habitat associated with reduced spills and seepage from Canals No. 1 and No. 2. As water conservation increases, drainages and associated seeps are predicted to receive less water to support riparian and wetland type habitats, but some spills are projected to continue as well as on-farm tail water. Impacts to these artificial habitats will be offset with the benefit of additional flows in the 15-mile reach of the Colorado River. The estimated 17,000 acre-feet water savings will be returned to the Colorado River via the Grand Valley Power Plant. This would directly benefit the riverine system and fish species in the Colorado River by increasing base flows in the Colorado River.

Threatened and Endangered Species—Reclamation consulted with the Fish and Wildlife Service regarding impacts to endangered Colorado River fishes. In a memorandum dated August 19, 2013 (ES/CO: BR TAILS 06E24100-2013-I-0192), the Fish and Wildlife Service concurred with Reclamation's determination that the proposed action may affect, but is not likely to adversely affect the endangered Colorado River fishes or critical habitat. The proposed action would have no effect on other listed species.

Unique Geographic Features— To meet requirements of environmental laws and U.S. Department of the Interior policies, Reclamation specifically addresses potential impacts of any proposed action on unique geographic features, which include prime and unique farmland, wild or scenic rivers, rivers placed on the nationwide river inventory, refuges, floodplains, or wetlands.

Under the Proposed Action Alternative, temporary disturbance to some agriculturally important lands may occur during construction. These lands will be returned to production immediately following construction and restoration of the ground surface. No prime and unique farmlands will be permanently removed from production as a result of the Proposed Action. The Proposed Action would give OMID and landowners the ability to better manage their irrigation water with efficiencies gained from the improved system. A reduction of salt accumulation in these soils may also occur in some areas with piping earthen laterals, this benefit is also directly related to on-farm improvements such as when converting flood irrigation to gated pipe, sprinkler or micro-drip irrigation. No direct adverse effects on agriculturally significant lands are expected to occur due to implementation of the Proposed Action.

The Colorado and Gunnison rivers, and Sink Creek would be also affected by the proposed

action. The primary effect of the proposed action on the Colorado River would be increasing the volume of water in the Colorado River by an estimated 17,000 acre-feet during the irrigation season. This would result in increased flows in the Colorado River at critical times to meet requirements of the 15-Mile PBO. Reduced canal spills and decreases in irrigation return flows will also result in reduced return flows via Sink Creek, OMID drains, and other drainages to the Gunnison and Colorado Rivers.

Cultural Resources—Reclamation consulted with the Colorado State Historic Preservation Officer (SHPO) and determined that the proposed action will result in adverse impacts to historical resources eligible to the National Register of Historic Places by constructing canal system improvements in Orchard Mesa Canals No. 1 and No. 2. Reclamation will develop and enter into a Memorandum of Agreement with the SHPO pursuant to 36 CFR 800.6 to mitigate for adverse effects to eligible resources and implement mitigation measures prior to any ground disturbing activities.

Public Safety—With appropriate fencing, signage and management during construction and regulating reservoir operations, the proposed action is predicted to have no effect on public safety.

Other Resources—The proposed action is predicted to have no effect on other resources including Indian trust assets, environmental justice, and recreation resources.

Cumulative Impacts—The Grand Valley Unit of the Colorado River Basin Salinity Control and the Upper Colorado River Endangered Fish Recovery programs have been implementing actions, which cumulatively have resulted in beneficial impacts on the endangered Colorado River fishes, water quality and the river ecosystem.

### **Environmental Commitments**

The following environmental commitments will be implemented as an integral part of the Proposed Action. Environmental commitments include:

1. Construction Activities confined to Surveyed Areas—All construction activities will be confined to within 50 feet of the canals and existing access roads, and within 50 feet of the surveyed alignment. The construction footprint for the regulating reservoir will be limited to within the purchased property. All construction activities outside of this corridor may require additional review by Reclamation to determine if the existing surveys and information are adequate to evaluate additional impacts outside this corridor. Additional NEPA/ESA compliance activities may be required if determined by Reclamation.
2. Disturbed Areas—During construction, any topsoil disturbed by construction will be saved and then redistributed after completion of construction activities. All



disturbed areas will be smoothed, shaped, and contoured to as near their pre-project conditions as practicable. Re-seeding and planting will occur at appropriate times with weed-free seed mixes per Reclamation and the underlying landowners' specifications.

3. Water Quality—Best Management Practices (BMP's) will be incorporated into all construction contracts and be implemented to minimize erosion and protect water quality of downstream resources. If any dewatering is needed during construction, the construction contractor will be required to obtain required Section 402 permits prior to dewatering.
4. Trenching—During construction of any pipelines, trenching and burying pipelines concurrently will be required to minimize entrapment of small wildlife and herpetofauna. Construction of escapement ramps are required if large portions of trenches are left open overnight.
5. Noxious Weed Control—OMID will be required, as part of continued operations and maintenance, to control noxious weeds (Russian knapweed, thistle, etc.) that may become problems in areas disturbed during construction. Weed control in disturbed areas may be funded by the Recovery Program as maintenance.
6. Clean Water Act 404 Permits—It is not anticipated that 404 permits will be needed for construction activities as no jurisdictional wetlands have been identified within the construction footprint. If wetlands can be directly affected by discharge of dredge or fill material, additional consultation with the Army Corps will occur to determine if permits are needed for the activity. Construction of check structures and piping within the existing canals and lateral prisms is exempt from CWA. However, any new structures within existing project drains may require CWA 404 permits.
7. NPDES Permits and Stormwater Pollution Prevention Plan—Reclamation's construction contractor shall prepare a stormwater pollution prevention plan and Reclamation will request coverage under the National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activities (Permit No. COR12000F) from the Environmental Protection Agency, prior to initiating any construction related activities.
8. Federally Listed Species—In the event that threatened or endangered species are encountered during construction, the construction contractor shall stop construction activities until Reclamation has completed consultation with the Service to ensure that adequate measures are in place to avoid or reduce impacts to the species.


9. Cultural Resources—Prior to any ground disturbing activities, Reclamation will implement mitigation for sites eligible to the NRHP as documented in a Memorandum of Agreement (MOA) between Reclamation and the SHPO. When finalized, conditions included in the MOA will be incorporated as environmental commitments. Also, in the event that additional cultural and/or paleontological resources are discovered during construction, the Construction Contractor shall stop construction activities until Reclamation has completed consultation with the SHPO and appropriate measures are implemented to protect or mitigate the discovered resource.
  
10. Hazardous Materials—During construction, the use, storage and disposal of hazardous waste materials and wastes on-site will be managed in accordance with all federal, state, and local standards.
  
11. Operation and Maintenance—With approval of this Finding of No Significant Impact, Reclamation and OMID will execute the operation and maintenance contract that identifies operation and maintenance responsibilities, which was included in the Final EA as Attachment E.

**Conclusions**

Based on a review of comments received, analysis of environmental impacts, and coordination with the Service under the Endangered Species Act, Reclamation concludes that construction, operation, and maintenance of the Orchard Mesa Irrigation District Canal System Improvement Project with implementation of the above described environmental commitments, will not have 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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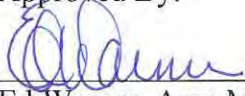
8/30/2013  
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09/03/2013  
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