

**United States Department of Interior
Bureau of Reclamation
Western Colorado Area Office**

FINDING OF NO SIGNIFICANT IMPACT

**PROVIDING FISH SCREENING IN
THE REDLANDS POWER CANAL**

WCAO-GJ-FONSI-04-02

May 2004

In accordance with the National Environmental Policy Act of 1969, as amended, and based on the following, the Bureau of Reclamation (Reclamation) has determined that the proposed construction, operation and maintenance of a fish screen in the Redlands Power Canal will not result in a significant impact on the human environment.

Proposed Action:

The Upper Colorado River Endangered Fish Recovery Program (Recovery Program) is proposing to construct a fish screen in the Redlands Power Canal southwest of the City of Grand Junction, in Mesa County, Colorado. Included in the proposed action is the execution of a Operation and Maintenance (O&M) Agreement between Reclamation, the Fish and Wildlife Service (Service) and Redlands Water and Power Company (RWPC) in which RWPC assumes ownership of the Redlands fish ladder and fish screen, operates and maintains the fish screen, and maintains the fish ladder. The Service will continue to operate the Redlands Fish ladder. The O&M agreement provides the mechanism for RWPC to be reimbursed by the Recovery Program through Reclamation for operation and maintenance costs associated with the fish ladder and fish screen.

The Redlands Power Canal transports water diverted from the Gunnison River by RWPC via the Redlands Diversion Dam. When constructed, the fish screen would return fish that enter the Redlands Power Canal to the Gunnison River downstream of the Redlands Diversion Dam. The Redlands Fish ladder, constructed in 1996, is presently owned by Reclamation and operated by the Service.

Purpose and Need:

The Recovery Program identified a need to construct and operate a fish screen in the Redlands Power Canal to prevent loss of adult and subadult Colorado pikeminnow and razorback sucker. The purpose of the proposed action is to implement Recovery Program elements to minimize incidental take of endangered fishes, enhance critical endangered fish habitat, and assist in recovery of the Colorado pikeminnow and razorback sucker.

Public Scoping:

Reclamation identified issues and concerns from individuals, agencies, and organizations that might be affected by the project. A scoping letter was mailed in April 2003 to 38 local, state and federal agencies, water users, environmental organizations, recreationists, adjoining land owners, and other interested parties. A Draft Environmental Assessment was distributed for public review and comment in September 2003. Written comments on the draft EA were requested by November 7, 2003.

Two comment letters were received on the draft EA. The Final EA addressed comments and issues identified during the comment period. Coordination on the project included consultation with the Service under the Endangered Species Act and Fish and Wildlife Coordination Act, Colorado Historic Preservation Officer, and RWPC.

Alternatives:

The EA evaluated No Action and Proposed Action Alternatives.

Under the No Action Alternative, the Recovery Program would not construct or provide funding for operation and maintenance of a fish screen in the Redlands Power Canal. Adult and subadult Colorado pikeminnow and razorback sucker could continue to become entrained in the Redlands Power Canal and be lost by continued RWPC operations.

Under the proposed action, the Recovery Program will construct a fish screen in the Redlands Power Canal to prevent canal entrainment of adult and subadult Colorado pikeminnow and razorback sucker. Reclamation will design and construct the fish screen and the Recovery Program will provide fish screen operation and maintenance funding for the fish screen and Redlands fish ladder through the execution of an O&M agreement between Reclamation, the Service and RWPC. RWPC will assume ownership of the fish screen and fish ladder.

The proposed action includes a "V-type" fish screen configuration with each leg of the screen being 160 feet long, a bypass channel, and a fish return pipeline. The screen is designed for a total diversion of 890 cfs with 40 cfs for the fish return pipeline, for a total screen flow of 850 cfs (RWPC Water Rights).

The fish screen will be completed under Reclamation construction contracts. RWPC will continue to participate in the design and construction process to ensure that the fish screen facilities will not conflict with RWPC operations. Temporary construction easements and/or permits will also be acquired from all affected landowners before construction. Reclamation will negotiate protective measures to reduce impacts to private property, rights-of-ways, and facilities. Following construction, any damaged areas will be restored, as near as practicable, to their original condition.

Construction will begin after October 15, 2004 when RWPC's irrigation diversions are no longer needed. The Redlands Power Canal will be dewatered to construct the canal bypass and install the upstream and downstream bulkhead isolation structures. The Redlands Power Canal will be dewatered from November 1, 2004 to April 1, 2005 for construction. If the bypass channel and isolation structures are completed prior to April 1, 2005, RWPC could divert river flows to the Redlands Power Plant to generate hydroelectric power while fish screen construction continued. Excavated material to construct the bypass channel (about 50,000 cubic yards) will be wasted on-site in upland areas identified by RWPC on RWPC's property. Construction access will be from the existing dam and canal access road and no major road improvement will be required.

Conclusions:

Under the No Action Alternative, the Recovery Program through Reclamation, would not take action to minimize incidental take of Colorado pikeminnow and razorback sucker in the Redlands Power Canal. Habitat would not be enhanced to assist in recovery efforts of the Colorado pikeminnow and razorback sucker.

During formal consultation with the Service (FWS/R6/ES/GJ-6-CO-04-F-003), the Service determined that the water depletions associated with existing RWPC operations are likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail and razorback sucker and result in the destruction or adversely modification of their critical habitat. The Service determined that the Recovery Program can serve as the reasonable and prudent alternative to avoid jeopardy to the endangered fishes and destruction or adverse modification of critical habitat caused by RWPC historic depletion provided that the following Recovery Implementation Program Recovery Action Plan items from the Colorado River Action Plan: Gunnison River, are implemented or continue to be implemented:

1. RIPRAP II.B.1B.1.g—Screen Redlands diversion structure to prevent endangered fish entrainment. This recovery element is the proposed action that was consulted on and includes water depletions associated with the RWPC operations. Recovery elements are intended to offset impacts associated with water depletions.
2. RIPRAP II.B.1.c—Operate and maintain Redlands fish ladder. The Redlands fish ladder has been in operation since 1996. The Service will continue to operate the ladder and RWPC will assume ownership of the ladder and will be responsible for maintenance as identified in cooperation with the Service.
3. RIPRAP II.C.3—Provide interim flows the Redlands Fish Ladder and below the Redlands Diversion Dam from the Aspinall Unit as determined through the continued annual coordination (meeting 3 times/year) of Aspinall operation until the Record of Decision on the Aspinall Operations is completed and implemented.

According to the Recovery Program's Section 7 agreement for historic depletions, these actions will serve as the reasonable and prudent alternative as long as they are completed according to the schedule identified in the Plan. RWPC, Reclamation and the Service agree to take specific responsibilities in the operation and maintenance of the fish passage facility and fish screen (O&M agreement). In order to more efficiently implement the reasonable and prudent alternatives, RWPC and the Service signed a Recovery Agreement that outlines the responsibility of each party.

An incidental take statement was included in the Service's biological opinion to address potential incidental take associated with the fish screen and fish ladder, and RWPC's diversions. The following reasonable and prudent measures necessary and appropriate to minimize take of Colorado pikeminnow, razorback sucker and bonytail were identified:

1. Obtain more information about larval, subadult and adult fishes in the Gunnison River to further understand the extent of take in the Redlands Canal.
2. Monitor operations of the fish screen to determine the number of days and the reasons the screen cannot be operated, report the results of the monitoring, and continue to enhance the overall operations of the fish screen.

In order to be exempted from the prohibitions of section 9 of the Endangered Species Act, the following terms and conditions must be complied with, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. The Recovery Program shall continue to monitor larval endangered fishes on the Gunnison River through larval fish sampling. The Recovery Program shall continue to obtain information on location of spawning sites. The Recovery Program shall continue to monitor the status of the adult and subadult endangered fishes in the Gunnison River.
2. The RWPC shall provide a report to the Service annually that enumerates the number of days the fish screen was not operated and the reasons the fish screen was not operated. If major problems are encountered during the first year of operations, RWPC shall contact the Service and cooperatively determine a course of action to resolve the problem. Meetings should be periodically to continue enhancing the operation of the fish screen.
3. The RWPC shall report any dead or injured endangered fishes found in the vicinity of the RWPC to the Project Leader, Fish and Wildlife Service, Colorado River Fishery Project, Grand Junction, Colorado (970/245-9319). As required by protocol, the Service will report and dead or injured listed species to the Service's Division of Law Enforcement.

In terms of environmental consequences of implementing the proposed action, recreation resources, land use, water rights, Indian trust assets, and environmental justice will not be affected.

Culture resource inventories conducted by Reclamation staff archaeologists identified no cultural resources within the project area. Reclamation, in consultation with the Colorado Historic Preservation Officer, determine that the proposed action would have no adverse effect on the Redlands Dam Complex (5ME764). Reclamation's construction contracts will have "stop work" clauses, which will stop construction activities in the unlikely event cultural resources are uncovered. Work would not resume until consultation with the Colorado Historic Preservation Office is completed. Therefore the proposed action is predicted to have no effect on cultural and historic properties.

Operation and maintenance of the fish screen will be beneficial to common and endangered fish species. Adult and subadult fishes that enter the Redlands Power Canal will be screened and

returned to the Gunnison River via the fish return pipeline. Continued operation and maintenance of the Redlands fish ladder will also be beneficial to common and endangered fish species by providing continued fish access upstream of the Redlands Diversion Dam.

Vegetation resources will be temporarily affected during construction activities. Disturbed areas will be revegetated after construction. The proposed action will result in the loss of an estimated 10 mature cottonwood trees along the fish return pipeline. No wetlands will be affected by the proposed action.

Wildlife will likely be temporarily displaced and may avoid the project area during construction. Construction will occur outside the nesting season, and long-term effects are predicted to be negligible.

Water quality may have short-term minor impacts during construction of the fish return pipeline. Increases in turbidity may occur during construction and removal of a temporary cofferdam needed to construct the fish return outlet structure. Prior to construction, Reclamation will obtain Section 404 of the Clean Water Act authorization for the Army Corps of Engineers under Regional General Permit No. 57 to construct the fish return outlet structure.

Hydropower generation will be affected from November 1, 2004 to April 1, 2005 when the Redlands Power Canal is dewatered for construction. Construction of the fish screen will begin after the 2004 irrigation season to avoid impacts to RWPC water users.

The City of Grand Junction operates a pump station below the Redlands Power Plant and provides irrigation water from the Power Plant's tailrace to a residential community and golf course. The City states that they normally provide water to customers from April 1st to November 1st each year dependent on weather and water user demand. Reclamation will include in its construction contract November 1, 2004 as the date for canal dewatering. RWPC normally ends its irrigation season on or near October 15th and the canal is down for a few days to a week for maintenance before diversions continue through the winter for hydropower production. RWPC has identified October 18, 2004 as the end of the 2004 irrigation season and the canal will be likely be dewatered until April 1, 2005. If the contractor elects to begin construction in the canal prior to November 1st, the construction contractor will be required to provide up to 4 cfs to the pumping plant for the residential community and golf course until November 1, 2004.

Environmental commitments to mitigate or avoid significant impact to resources include the following:

- 1) Section 404 authorization will be obtained from the Army Corps of Engineers prior to initiating construction activities. Removed material to construct the bypass channel will be discharged in upland sites on RWPC owned property as identified and approved by RWPC.
- 2) The Redlands Power Canal will be dewatered for construction from November 1, 2004 to April 1, 2005 for fish screen construction. Canal operations before November 1, 2004 and after April 1, 2005 will be determined by RWPC. If the construction contractor requests RWPC to

dewater the canal prior to November 1, 2004, construction contracts will require contractor to provide up to 4 cfs to the City of Grand Junction pumping plant downstream of the Redlands Power Plant until November 1, 2004 to provide irrigation water for a residence and golf course.

3) The Recovery Program has committed to compensate RWPC for lost hydropower revenues from canal dewatering during construction of the fish screen.

4) Areas disturbed during construction will be revegetated with appropriate plant species (i.e. willows, native grasses). Reclamation will mitigate for the loss of mature cottonwood trees by planting a combination of 50 cottonwood saplings and willow cuttings (5 to 1 ratio) within the project area.

5) In 1996, Reclamation entered into a temporary agreement with the Colorado Water Conservation Board to deliver water from the Aspinall Unit to ensure that a minimum of 300 cfs was maintained downstream of the Redlands Diversion Dam in the months of July through October for the benefit of the Colorado pikeminnow and razorback sucker. The 300 cfs is used to operate the Redlands fish ladder and maintain adequate flows to allow endangered fish to swim upstream from the Colorado River to the fish ladder entrance. The interim agreement expires in 2005 and a permanent agreement regarding flows below the Redlands Diversion Dam will be addressed in the Environmental Impact Statement and Record of Decision for operational changes for the Aspinall Unit that are related to compliance with the Endangered Species Act (ESA) and implementation of the Service's Gunnison and Colorado River flow recommendations or a reasonable alternative. During the time period between when the interim agreement expires and the issuance of a record of decision, Reclamation will to the extent allowable under State and Federal laws, attempt to release from the Aspinall Unit sufficient water to maintain a minimum flow of 300 cfs during the months of July, August, September, and October in the Gunnison River from the Redlands Diversion Dam to the confluence of the Gunnison River with the Colorado River. During drought periods when the 300 cfs flow below Redlands may not be possible, Reclamation will work with the Service and water users in the Gunnison River Basin to provide flows lower than 300 cfs below Redlands.

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 Redlands fish screen will have no significant impacts on the quality of the human environment or the natural resources in the project area, and therefore further NEPA compliance in the form of an environmental impact statement will not be required.

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:

Terence L. Stroh (signed)
Terence L. Stroh, General Biologist

05/21/2004
Date

Concurred By:

Stephen K. McCall (signed)
Stephen K. McCall, Environmental Specialist

05/21/2004
Date

Approved:

Sue Moyer (signed for)
Carol DeAngelis, Area Manager
Western Colorado Area Office

05/21/2004
Date