

U.S. DEPARTMENT OF THE INTERIOR

**BUREAU OF RECLAMATION
ALBUQUERQUE AREA OFFICE
ALBUQUERQUE, NEW MEXICO**

**DRAFT
FINDING OF NO SIGNIFICANT IMPACT
NUMBER: AAO-07-018**

SANDIA BOSQUE RESTORATION

Manager, Environment Division

Date

Area Manager, Albuquerque Area Office

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Finding of No Significant Impact
Sandia Bosque Restoration

BACKGROUND

The Rio Grande bosque (bosque) has been a crucial ecological and cultural component for the Pueblo of Sandia for thousands of years. The river and the vegetation communities it supports are important sources of plants and animals on which the Pueblo of Sandia relies. However, this riparian ecosystem has undergone dramatic degradation in the past century due to flood control, water diversions, drought, and other human-caused and environmental factors. Changes have reduced flows in the river and induced encroachment by non-native saltcedar (*Tamarix ramosissima*), Russian olive (*Elaeagnus angustifolia*), and tree of heaven (*Ailanthus altissima*), leading to a loss of habitat for wildlife, including the endangered Rio Grande silvery minnow (RGSM) (*Hybognathus amarus*) (Sublette et al. 1990; Bestgen and Platania 1991) and Southwestern willow flycatcher (Flycatcher) (*Empidonax trailii extimus*) (Sogge et al. 1997). In 2001 the United States Fish and Wildlife Service (USFWS) issued a Biological Opinion regarding the effects of water management practices on the RGSM, Flycatcher, and several other species. The USFWS concluded that if the Bureau of Reclamation (Reclamation) management practices used at the time were continued, they would likely jeopardize the continued existence of the RGSM and Flycatcher. Therefore, the USFWS developed a Reasonable and Prudent Alternative (RPA) to avoid placing these species in jeopardy in accordance with the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.). The United States Army Corps of Engineers and the Reclamation have initially accepted the general provisions of the RPA.

Several federal documents outline a strategy for habitat restoration that would benefit these species and implement the provisions of the RPA. For example, the Science Subcommittee of the Middle Rio Grande Endangered Species Act Collaborative Program Science Subcommittee (2004) wrote:

Potential for successful survival and recovery of silvery minnow populations along the reaches of the MRG that are subject to drying would increase with additional and larger regularly wetted (irrigated) refuge pools.

In recent years, restoring habitat for the RGSM has become a high priority for several federal, state, and tribal organizations. Reclamation has already implemented several such projects, including one similar in scope and nature to the project proposed herein.

The Pueblo of Sandia has worked with Reclamation since 2000 to improve and restore terrestrial wildlife habitat in the bosque. Most projects to date have involved removing non-native saltcedar and Russian olive. With Reclamation funding, the Pueblo of Sandia proposes to initiate additional aquatic habitat improvements with the creation of either a riverine high-water channel through the bosque, or improvements to the existing Rio Grande shoreline. The goals of these projects are to improve RGSM adult and juvenile over-wintering habitat, egg retention habitat, and rearing habitat.

This Environmental Assessment (EA) has been prepared to evaluate the potential impacts of these riverine habitat restoration techniques and projects on the environmental conditions and natural and resources of the Pueblo of Sandia, in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4331-4335).

SUMMARY OF THE PROPOSED ACTION

The proposed action is to construct a meandering channel through part of the currently abandoned floodplain that connects to surface water of the Rio Grande. The channel would be located in a historical side channel on the abandoned floodplain (riparian areas in the bosque no longer regularly flooded). The Pueblo of Sandia has already cleared non-native vegetation from the restoration area. Some larger woody debris is available nearby to be placed in the channel to provide cover for aquatic species, especially the RGSM. Additional site preparation may include some maintenance for saltcedar re-sprouts, and cutting or mowing weeds prior to channel construction.

The mouth to the channel would be left open, with no mechanical means of closure. Similarly regulated channels have been constructed at the Los Lunas Habitat Restoration Site adjacent to Los Lunas, New Mexico and in the Albuquerque Reach near Central Avenue. The width of the channel is estimated to be 56 feet top width by 8 feet deep, with 3:1 sloped sides. The total length of the channel is approximately 1,680 feet. This would encompass an area of 2.2 acres.

Excavation of the restoration site for the channel would begin above the ordinary high water mark (OHWM) and continue to below the OHWM. Final elevations would be determined once the full range of flows has been established, and the objectives for water holding within the channel would be determined. Based on preliminary estimates, approximately 8.5 cubic yards of material would be generated per linear foot of the excavated channel. It is anticipated that some of this material would be placed along the bank of the new channel to strengthen it, and the remainder would be placed along the levee in already disturbed areas on the Pueblo of Sandia. In addition, some material may be stored and used for road improvements. Construction would likely begin in the fall during low flow conditions, and after resident birds had completed nesting.

The high-flow channel option would provide benefits to RGSM by providing a slow-moving habitat into which RGSM eggs could settle out of the current and shallow areas in which the fish could spawn. In addition, riparian birds, mammals, reptiles, and amphibians would find improved habitat along the channel.

Following construction, approximately 5 acres of native plants including coyote willow (*Salix exigua*) and Gooding's willow (*Salix gooddingii*) would be planted in patches along the margins of the channel to reduce erosion. Other native vegetation, including cottonwood (*Populus deltoides*), willow (*Salix* spp.) poles and New Mexico olive (*Forestiera pubescens*), would be planted on disturbed areas (channel margins, access routes, staging areas, etc.). The plantings would stabilize the channel, reduce erosion, and provide habitat for RGSM egg retention. The channel would be lined with native willows and native grasses would be seeded in other disturbed areas with a tractor and grass drill. Cottonwood pole planting or live trees would be planted at a density of 10 trees per acre adjacent to the channel. Holes for the poles would be drilled with an auger powered by a small bobcat tractor. Vegetation would be purchased from local stock to promote genetic compatibility with local native vegetation. Logs would be placed in the channel to provide cover and habitat for aquatic species.

The Pueblo of Sandia would monitor the site for vegetative survival and re-growth, channel characteristics, and the presence of birds (especially the Flycatcher), and other wildlife. Complete site restoration would likely take several years as plants get firmly established. Ultimately, long-term wildlife use (including the RGSM and Flycatcher), habitation, and reproductive success would need to be assessed and quantified. Existing RGSM and Flycatcher monitoring protocols established by the USFWS would be employed at the site. These long-term monitoring efforts would be addressed in detail with the creation of a bosque Monitoring Plan. The Pueblo of Sandia conducts monthly monitoring of the RGSM with the USFWS. This monitoring has been conducted since 2002. The Pueblo of Sandia would explore the possibility of establishing monitoring sites in and around the project area after construction of habitat improvements.

ENVIRONMENTAL IMPACTS RELATED TO THE RESOURCES OF CONCERN

The project is intended to create habitat for the federal-listed endangered RGSM. The project may affect but is not likely to adversely affect this species.

There are no other listed species that likely occur in the project area. The bald eagle has the potential to occur in the project area during the winter, but this species was recently de-listed. Other listed species that occur in Sandoval County are not likely to be present at the project site.

ENVIRONMENTAL COMMITMENTS

All applicable permits would be obtained prior to implementation of the project.

- Section 401 of the CWA (CWA; 33 U.S.C. 1251 et seq., as amended) requires applicants for Section 404 authorization to obtain water quality certification prior to initiating construction. This authority rests with, and would be carried out in the proper sequence by the Pueblo of Sandia. Initial conversations with the Army Corps of Engineers have indicated that a 404 Permit would not be required, as most of the work would take place above the Ordinary High Water Mark. While coordinating closely with contractors, the Pueblo of Sandia would be responsible for meeting the conditions of these permits, and would use best management practices and avoidance by design, to prevent or minimize effects to water resources.
- Minimal disturbance would occur to the bankline, as most of the project would occur outside the Ordinary High Water Mark of the Rio Grande.
- During construction, desirable native vegetation already established on site would be preserved whenever possible.
- ESA compliance would be addressed through consultation with the USFWS regarding potential impacts to threatened and endangered species. Best management practices would be enforced to minimize potential impacts to willow flycatcher or other listed species. Consultation with the USFWS would determine the most effective best management practices.
- The Pueblo of Sandia is committed to monitoring the habitat restoration projects for one year to document changes in site conditions and the presence of various fish species using the habitat. The Pueblo of Sandia would be responsible for notifying the USFWS if they find silvery minnows using the constructed channel or other habitat features, or in the event that isolated habitats form in the channel.
- To protect aquatic habitat from spills or contamination, hydraulic lines would be protected from punctures. In addition, all fueling would take place outside the active floodplain, and all equipment would undergo high-pressure spray cleaning and inspection prior to operation. Equipment would be parked on pre-determined locations on high ground away from the project area overnight.
- The Pueblo of Sandia would seek to avoid impacts to birds protected by the Migratory Bird Treaty Act (16 U.S.C. 703) by scheduling construction outside of the normal bird breeding and nesting season (approximately April 15 to August 15) for most avian species, or conduct preconstruction breeding surveys and monitoring nests during construction. In this case, nests would be marked and those trees protected until after the birds have fledged. Nests would continue to be monitored twice weekly during the time heavy equipment is being operated, and close coordination would occur between the equipment operators and Sandia Environmental Staff to reduce the possibility of destroying nests. The USFWS would be consulted if bird nests were found.

- The Pueblo of Sandia would comply with Section 106 of the National Historic Preservation Act as administered by the New Mexico State Historical Preservation Office. Should evidence of possible scientific, prehistorical, historical, or archaeological data be discovered during the course of this action, work shall cease at that location and the Reclamation Albuquerque Area Office Archaeologist shall be notified by telephone immediately with the location and nature of the findings. Care shall be exercised so as not to disturb or damage artifacts or fossils uncovered during operations, and the proponent shall provide such cooperation and assistance as may be necessary to preserve the findings for removal or other disposition by the government. TCPs would be evaluated as part of this process.

COORDINATION

Coordination was conducted with the USFWS and the State Historic Preservation Office (SHPO).

CONCLUSION

In accordance with the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321-4347, and based on the analysis in this EA Finding of No Significant Impact (FONSI), Reclamation has determined that implementing the Preferred Plan presented in this document would not result in a significant impact on the human environment and does not require preparation of an Environmental Impact Statement.