

1.0 PURPOSE AND NEED FOR ACTION

1.1 Introduction

The Rio Grande silvery minnow (RGSM; *Hybognathus amarus*) was formerly one of the most widespread and abundant species in the Rio Grande basin in New Mexico, Texas, and Mexico. Due to population declines resulting from the dewatering of portions of the Middle Rio Grande (MRG) through water-regulation activities as well as habitat degradation, the RGSM is currently listed as endangered both federally and by the State of New Mexico, and is protected under the Endangered Species Act (ESA). The development of captive breeding and rearing facilities and restoration of riverine habitats that support the RGSM are considered to be essential components for recovery of the species (USFWS 1994; 2003a).

The Bureau of Reclamation proposes to construct a facility intended to supplement RGSM production in the vicinity of Albuquerque, New Mexico. This facility, termed the Rio Grande Silvery Minnow Sanctuary (Sanctuary), will be comprised of an artificial rearing and breeding channel, containing elements of the natural environment including backwater pools and eddies, located parallel to the MRG near the existing BioPark in the City of Albuquerque. The intent of this facility is to contribute to the continued enhancement and recovery of the RGSM through the creation of additional habitat for the species. Congress recently authorized the Secretary of the Interior to implement construction and operation of the Sanctuary (C. Gibson, pers. comm., 6/1/05). The Middle Rio Grande Conservancy District (MRGCD), U.S. Fish and Wildlife Service (USFWS), and the City of Albuquerque are cooperating agencies. Agency scoping and technical meetings have occurred in 2004 and 2005.

The Project is funded by Reclamation. This Environmental Assessment (EA) has been conducted to evaluate the impacts of the construction and operation of the Sanctuary on environmental resources and their relationship to other projects and undertakings in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4331-4335).

1.2 Proposed Action

The Proposed Action involves the construction and operation of a Sanctuary that will contribute to the enhancement and recovery of RGSM in the MRG (Figure 1-1 for vicinity map). The proposed project site, near downtown Albuquerque, is at an elevation of approximately 4,940 feet and is located 4,800 feet south of Bridge Blvd., on the east side of the MRG (Figure 1-2).

The proposed Sanctuary will include diverse habitats such as channels, backwaters, and pools for all life stages to assist in increasing the population of this endangered fish in concert with other ongoing projects in the MRG. It is proposed that this facility be operated on a year round basis. For the initial phase of this project, it is anticipated that advanced larvae, the progeny of adults currently reared at the BioPark, will be introduced into the facility in the early summer months.

1.3 Purpose and Need

The purpose of the Proposed Action is to develop and construct an additional breeding and rearing facility for the RGSM in the Albuquerque Reach of the MRG with the intent of

increasing captive populations and enhancing augmentation efforts in the area. The Proposed Action will contribute towards efforts aimed to satisfy federal requirements under the *Biological Opinion for Reclamation's Water and River Maintenance Operations, the U.S. Army Corps of Engineers (USACE) Flood Control Operations, and Related Non-Federal Actions on the Middle Rio Grande, New Mexico, 2003* (2003). As mitigation for loss of RGSM habitat resulting from maintenance operations on the river, the USFWS mandated the development of breeding and rearing facilities in addition to the existing BioPark Refugium. The intent of these facilities is to alleviate jeopardy to the species by increasing captive populations, with the ultimate goal of improving the status of RGSM in the wild. The Biological Opinion (BO) requires the funding and collaborative execution of the construction of captive propagation facilities for the RGSM in the MRG, as specified in RPA element AA:

Upon the successful operation and evaluation of the recently construction refugium (Breeding and Rearing Facility #1 [BioPark Refugium]), the action agencies, in coordination with parties to the consultation, shall construct two new naturalized Refugia breeding and rearing facilities for the captive propagation of the silvery minnow. The first new breeding and rearing facility must be completed by May 31, 2005, and the second new facility must be completed by May 31, 2006. One facility should be located in the Cochiti or Angostura Reach and the other facility should be located in the Isleta or San Acacia Reach. The design, siting, and operation of the facility should be determined in coordination with the Service and Pueblos, as appropriate, and should include design adaptations following the lessons learned from the operation of the Breeding and Rearing Facility #1 (USFWS 2003a).

The Sanctuary will provide created RGSM habitat until natural habitat and river processes can be recovered to the extent that allows the population to recover in the Middle Rio Grande. Areas of the bosque disturbed during construction of the facility will be revegetated with native species to improve the existing condition of the habitat and benefit native wildlife. In addition to RPA Element AA as discussed above, the USFWS BO (2003a) also requires the funding and execution of habitat restoration projects on the MRG that will improve survival of all life stages of the endangered RGSM, as specified in RPA element S:

In consultation with the USFWS and appropriate Pueblos and in coordination with parties to the consultation, action agencies shall conduct habitat/ecosystem restoration projects in the Middle Rio Grande to increase backwaters and oxbows, widen the river channel, and/or lower river banks to produce shallow water habitats, overbank flooding, and regeneration stands of willows and cottonwood to benefit the silvery minnow, the flycatcher, or their habitats. Projects should be examined for depletions. It is the USFWS's understanding that the objective of the action agencies and parties to the consultation is to develop projects that are depletion neutral. By 2013, additional restoration totaling 1,600 acres (648 hectares) will be completed in the action area. In the short term (5 years or less), the emphasis for silvery minnow habitat restoration projects shall be placed on river reaches north of the San Acacia Diversion Dam. Projects should result in the restoration/creation of blocks of habitat 24 hectares (60 acres) or larger (USFWS 2003a).

1.4 Relevant Statutes, Regulations, and Other Plans

The Proposed Action will be required to conform to the provisions of all applicable local, state and federal regulations and ordinances. Specifically, compliance is required under the provisions of several federal regulations including Section 7 of the ESA as administered by the USFWS, and Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C.) as administered by the New Mexico State Historic Preservation Officer (SHPO). Because more than one acre of land will be disturbed by the Proposed Action, the project requires a National Pollution Discharge Elimination System (NPDES) permit for construction.

Proposed work below the ordinary high water mark of the Rio Grande and the Albuquerque Riverside Drain, which are jurisdictional Waters of the U.S, could be covered under an existing nationwide permit to comply with requirement of Section 404 of the Clean Water Act (CWA). This work includes installation of the fish release/water return channel and installation of the intake structure and outfall pipeline.

The Fish and Wildlife Coordination Act of 1980 (16 USC 2901 et seq.) encourages federal agencies to conserve and promote conservation of non-game fish and wildlife species and their habitats. In addition, the act requires federal agencies undertaking projects affecting water resources to consult with the USFWS and the state agency responsible for fish and wildlife resources. Reclamation has consulted with the USFWS and the New Mexico Department of Game and Fish (NMDGF) in the review of supporting information provided by Reclamation.

The Endangered Species Act of 1973, as amended, 16 USC *et seq.* Section 7 consultation, has been conducted through an intra-agency consultation. Reclamation has provided supporting information to assist with the consultation and effects determination.

Indian Trust Assets (ITAs) must be addressed in accordance with Secretarial Order 3175 and Reclamation ITA policy. A Temporary Construction Noise Permit may be required by the Albuquerque Environmental Health Department prior to construction, as specified in the local Noise Ordinance. Other local permits, including, but not limited to a fugitive dust, clearing and grading, and building permit, may be required from the City of Albuquerque. Regarding the use of Drain water for the Sanctuary, the MRGCD has prepared a letter of commitment to supply water for the Sanctuary (Appendix A). The purpose of this letter is to confirm the commitment of the MRGCD to provide, subject to the physical availability of water, an average of 10 cfs of water for the Sanctuary. The water will come from the Albuquerque Riverside Drain, and will be moved from the Drain into the Sanctuary by means of a structure to be built as part of the Sanctuary project. Inasmuch as the Sanctuary parallels and is adjacent to the Drain, MRGCD preliminary analyses show that moving water from the Drain into the Sanctuary will result in relatively small increases in depletions due to seepage or evaporation.

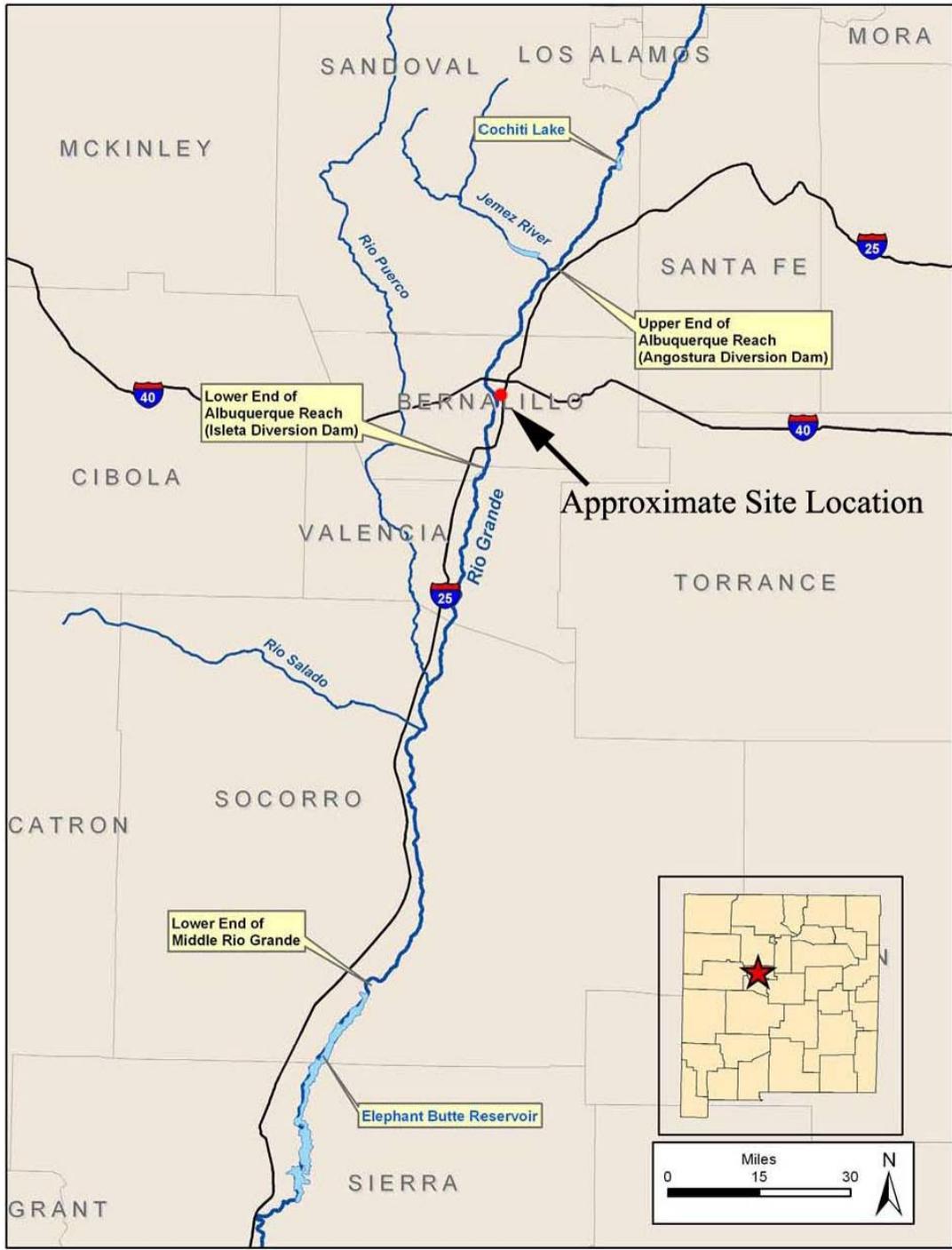


Figure 1-1. Project Area Map (adapted from SWCA 2005).

Rio Grande Silvery Minnow Sanctuary Site Map



Figure 1-2. Project Vicinity Site Map.

1.5 Agency Activities in Support of the Environmental Assessment

Public comment was solicited during the EA review process in the form of a public meeting held in the Albuquerque area on July 28, 2005. This meeting sought public comments or concerns on the Proposed Action as described within the Draft EA.

Reclamation has consulted directly with the USFWS, a cooperating partner in the project, to identify any potential issues and concerns that they have regarding this project and potential impacts to sensitive species and their habitat. Dr. Jennifer Parody of the USFWS has been the primary contact regarding this project and has attended several Sanctuary Technical Group meetings throughout the course of project development. Consultation with the USFWS regarding impacts to species listed or proposed as threatened and endangered (T&E) under the ESA has been completed. Supporting information was recently developed and submitted to the USFWS to comply with Section 7 of the ESA. During initial preparation of a BA, it was determined that ESA consultation would take place via USFWS intra-agency consultation.

Other agencies and groups consulted by Reclamation for development of this EA included the USACE, New Mexico Environment Department (NMED), and NMDGF. Cooperating agencies are the USFWS, MRGCD, and the City of Albuquerque.

Discussion among members of the project working group resulted in the identification of issues that should be addressed within the EA, including:

1. The potential for effects to protected species;
2. Removal of existing cottonwood trees, willows, and other vegetation within the project area and effects to native wildlife;
3. The introduction of state-listed noxious weeds;
4. Erosion and water quality during and after construction;
5. Impacts of Sanctuary components on flood storage capacity within the floodplain on connectivity with the river;
6. Air quality from dust generation during construction;
7. Potential impacts to cultural and archaeological resources, as well as potential sacred sites in the project area;
8. Construction noise levels and the associated potential impact on the commercial and residential receptors that may be close enough to the project site such that noise levels may approach or exceed standard noise threshold levels;
9. The importance of water quantity in the Middle Rio Grande, where surface water availability is limited and its downstream delivery is vital to various communities. This project will evaluate changes in water depletions and develop methods to ensure that depletions are not increased as a result of the action;
10. Avoidance of impacts to visual and aesthetics resources in the area.
11. The avoidance of ITAs in the project area; and

12. The assurance of Environmental Justice.

The following issues were not considered relevant to the project:

- There are no segments of designated Wild and Scenic Rivers in the vicinity of the project site that could be affected by the Proposed Action.
- There are no wetlands in the area that will be impacted by project implementation.