

1.0 PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

The City of Albuquerque Open Space Division (City) seeks to implement part of the Reasonable and Prudent Alternative (RPA) in the March 2003 U.S. Fish and Wildlife Service Biological Opinion (BiOp) 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 (U.S. Fish and Wildlife Service [USFWS] 2003) and to address priority habitat restoration goals of the Middle Rio Grande Endangered Species Act Collaborative Program (Collaborative Program). The City proposes to implement river and riparian restoration techniques for the benefit of the federally listed Rio Grande silvery minnow (silvery minnow) and southwestern willow flycatcher (flycatcher), specifically activities to improve habitat within the Albuquerque Reach of the Rio Grande. Restoring riverine and riparian habitats that support these species is considered an essential element for the recovery and ongoing success of these species (Federal Register [FR] 1993) and the Middle Rio Grande Bosque ecosystem.

Changes in riverine ecosystem processes and habitats have been linked to declines in silvery minnow, the last remaining member of a guild of small, pelagic spawning minnows native to the Rio Grande (Sublette et al. 1990; Bestgen and Platania 1991). Altered riparian ecosystem functions due to habitat loss and encroachment of non-native vegetation have contributed to the decline of southwestern willow flycatcher (Sogge et al. 1997). Restoring specific riverine and riparian habitats that support silvery minnow and flycatcher in river reaches where flow is more assured is a priority for the Collaborative Program (MRG ESA Collaborative Program Request for Proposals, October 2004).

The City of Albuquerque Habitat Bosque Restoration Project (Project) is led by the City of Albuquerque (City) Open Space Division. The Project will apply several habitat restoration techniques within the Rio Bravo subreach of the Middle Rio Grande to create and improve habitat for silvery minnow and flycatcher. The Project is primarily funded by the Bureau of Reclamation (Reclamation) through the Collaborative Program, with partial funding by the City. This Environmental Assessment (EA) has been conducted to evaluate the impacts of the implementation of these habitat restoration techniques and projects on other 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 design and implementation of various habitat restoration/rehabilitation techniques to restore aquatic and riparian habitat for the benefit of silvery minnow and flycatcher within the Albuquerque Reach of the Middle Rio Grande (MRG) (Figure 1.1). Specific rehabilitation and restoration activities will occur within the river floodplain at three locations within the Rio Bravo to South Diversion Channel subreach

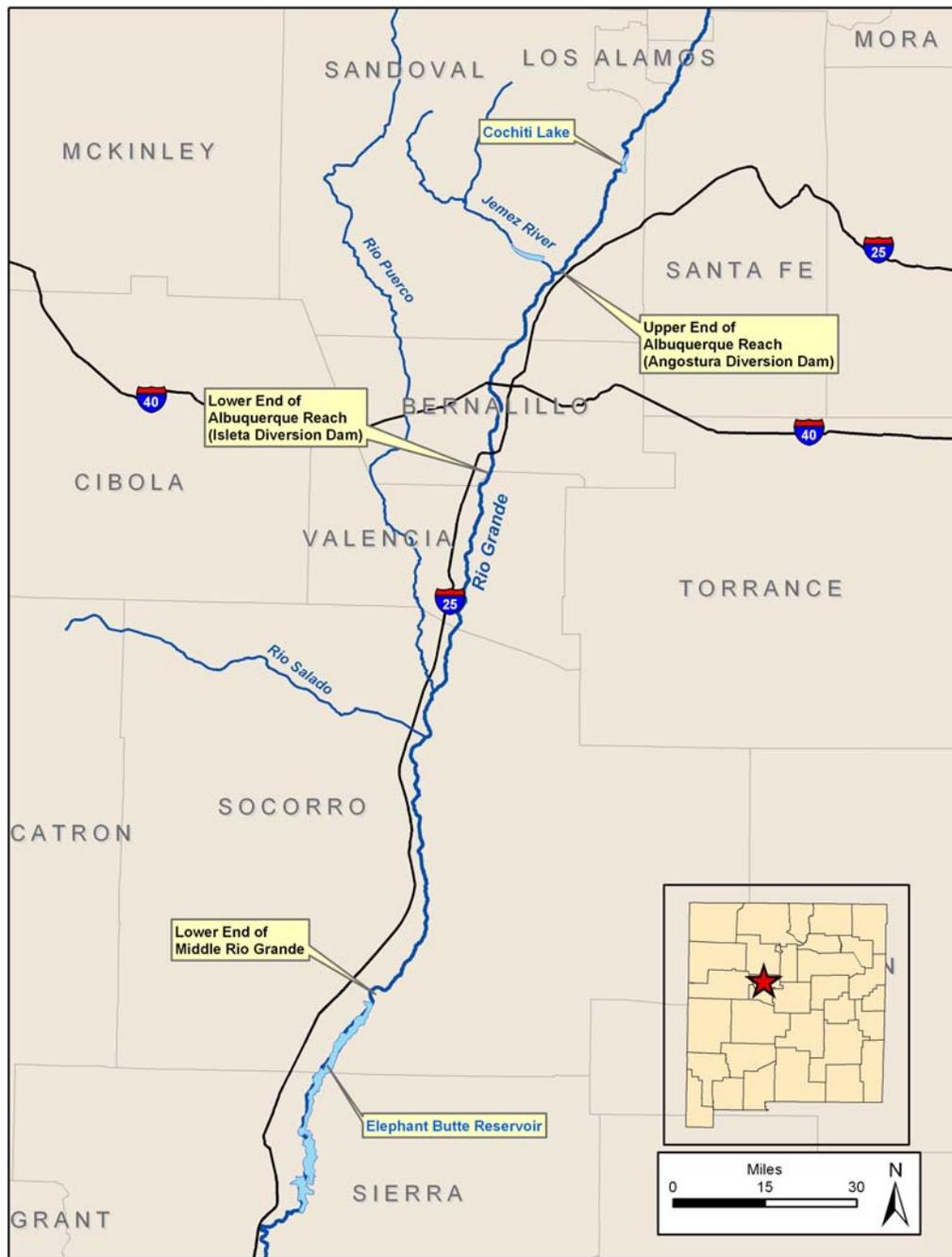


Figure 1.1. Project area location map.

(Figure 1.2). Site-specific projects will be implemented for the benefit of silvery minnow, flycatcher, and the riverine ecosystem as a whole.

The Rio Bravo North site covers 31.5 acres on the east side of the channel, approximately 0.4 mile north of the Rio Bravo Bridge (Figure 1.3). During the field survey performed for this project, the selected site was characterized by mixed native and non-native riparian vegetation. However, the majority of the area was cleared of non-native vegetation in March 2006 as part of the City-funded portion of the Project and is now an open cottonwood bosque with scattered New Mexico olive and black willow. The bankline vegetation within the project area was left undisturbed during clearing activities and remains characterized by a cottonwood canopy with an understory dominated by Russian olive and tamarisk. An ephemeral side channel approximately 1,012 feet long will be excavated and designed for inundation at 3,000–4,000 cubic feet per second (cfs) in the main stem of the Rio Grande. The upstream end of the channel will incorporate a bankline scour and placement of large woody debris (LWD) that will act to slow the velocity of water entering the feature while providing low-velocity habitat for silvery minnow. Within the bosque, two depressions of approximately 1 acre each will be excavated to function as surface water catchments that will encourage the recruitment of native vegetation for the benefit of southwestern willow flycatcher. In addition, 120 jetty jacks will be removed from this location to improve access in the event of wildfire.

The Rio Bravo South site, on the west side of the Rio Grande approximately 0.6 mile south of the Rio Bravo Bridge, consists of a 20.3-acre point bar with intermittent stands of native willow and non-native vegetation (Figure 1.4). The bar will be modified to create low-, mid-, and high-flow habitat to support multiple lifestages of silvery minnow. Techniques will include constructing ephemeral channels and bankline scours. Four 0.25-acre scours will be excavated on the east side of the bar to create low-velocity habitat for silvery minnow. Three channels will be excavated the length of the bar. The easternmost channel will be designed to function at 500 cfs in the mainstem, the center channel at 1,500 cfs, and the westernmost channel at 2,500 cfs. The combined area of the four scours will total 1.0 acre, and the combined length of the side channels will be 4,383 linear feet. The variety of inundation levels will provide habitat for silvery minnow at multiple discharge levels in the mainstem of the Rio Grande. The development of ephemeral and low-flow channels and scours at this location will also create seasonal habitat that will benefit breeding and migrating flycatcher. Non-native vegetation will be removed from the bar, and all native vegetation outside of the project footprint will be left intact. LWD will be used to armor select constructed features to minimize erosion and encourage the development of additional mesohabitat for the benefit of silvery minnow.

The third locality is a 6.5-acre island immediately adjacent to the outfall of the South Diversion Channel (SDC) (Figure 1.5). Techniques applied on the island will include constructing low- and high-flow ephemeral channels and bankline scours for the benefit of silvery minnow. Non-native vegetation will be removed from the island, and all native vegetation will be left in place. LWD may be placed near the banks of the island and near the inflow of newly constructed ephemeral channels. Two 0.25-acre scours will be excavated to act as low-velocity habitat for silvery minnow. Two channels, one 500 linear feet long designed for inundation at 500 cfs and one 752 linear feet long to be inundated at 2,500 cfs, will be excavated through the island to

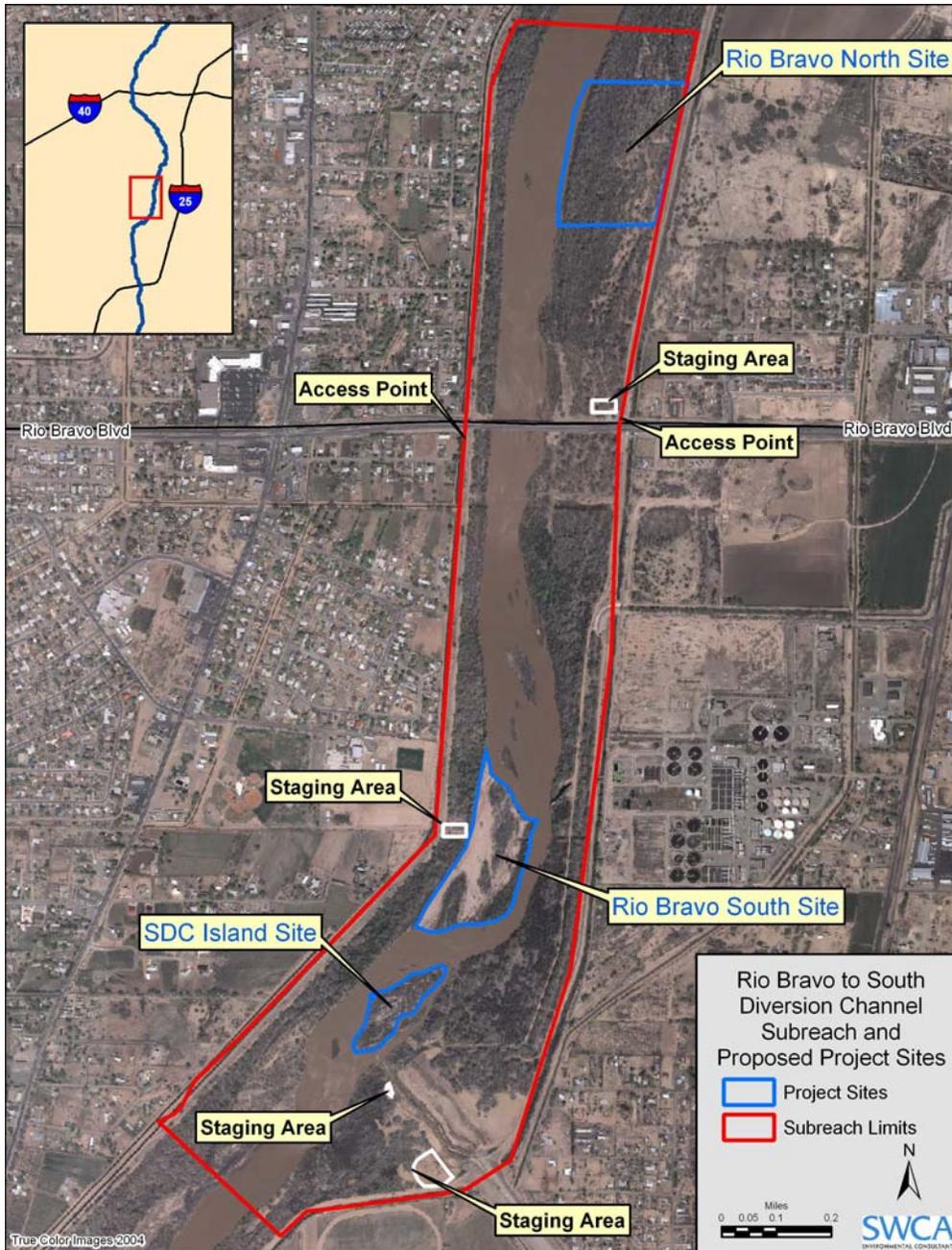


Figure 1.2. Rio Bravo Subreach and project sites.

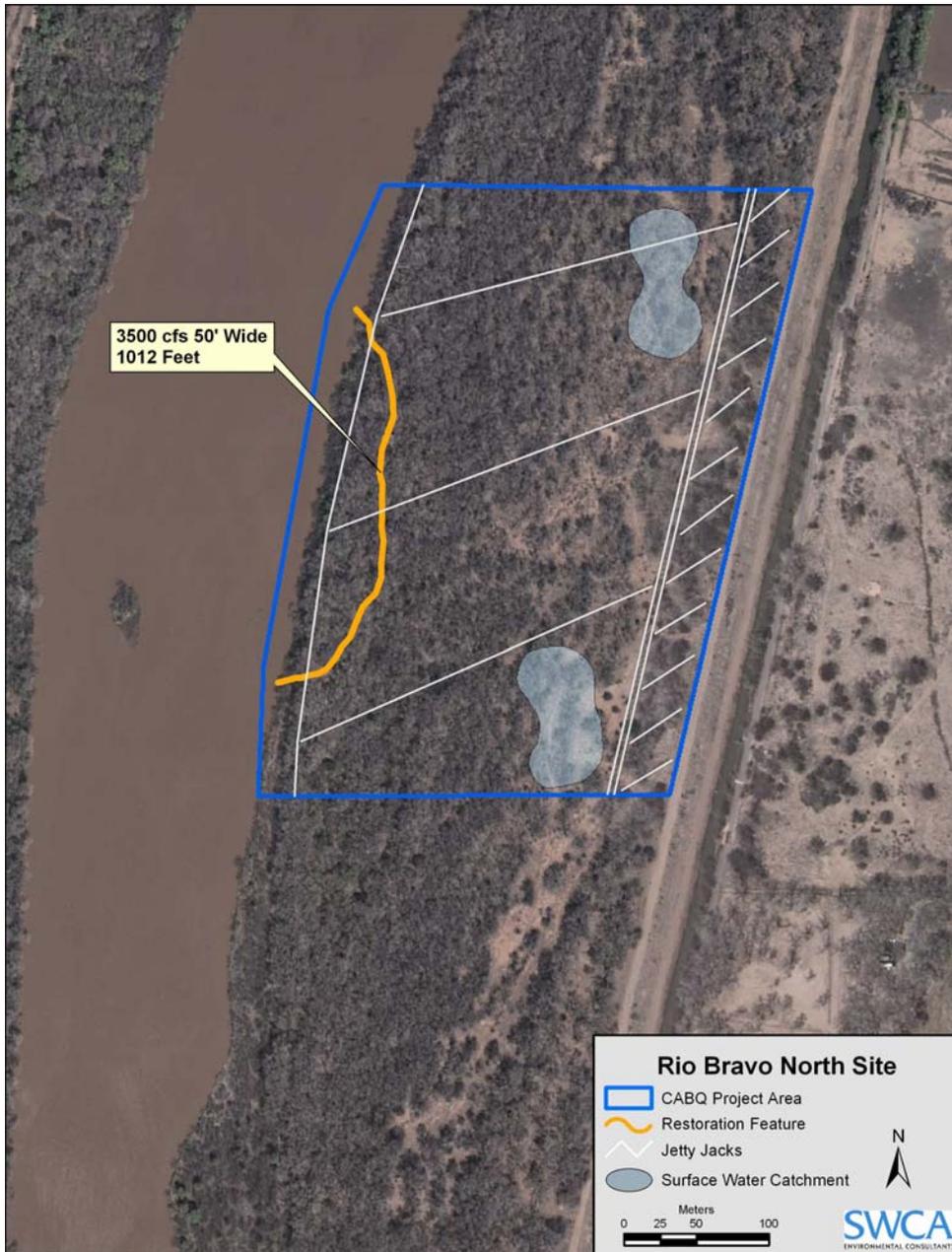


Figure 1.3. Techniques to be implemented at the Rio Bravo North Site include ephemeral channel construction, surface water catchments, jetty-jack removal, bankline scours, placement of LWD, and revegetation with native plant species.

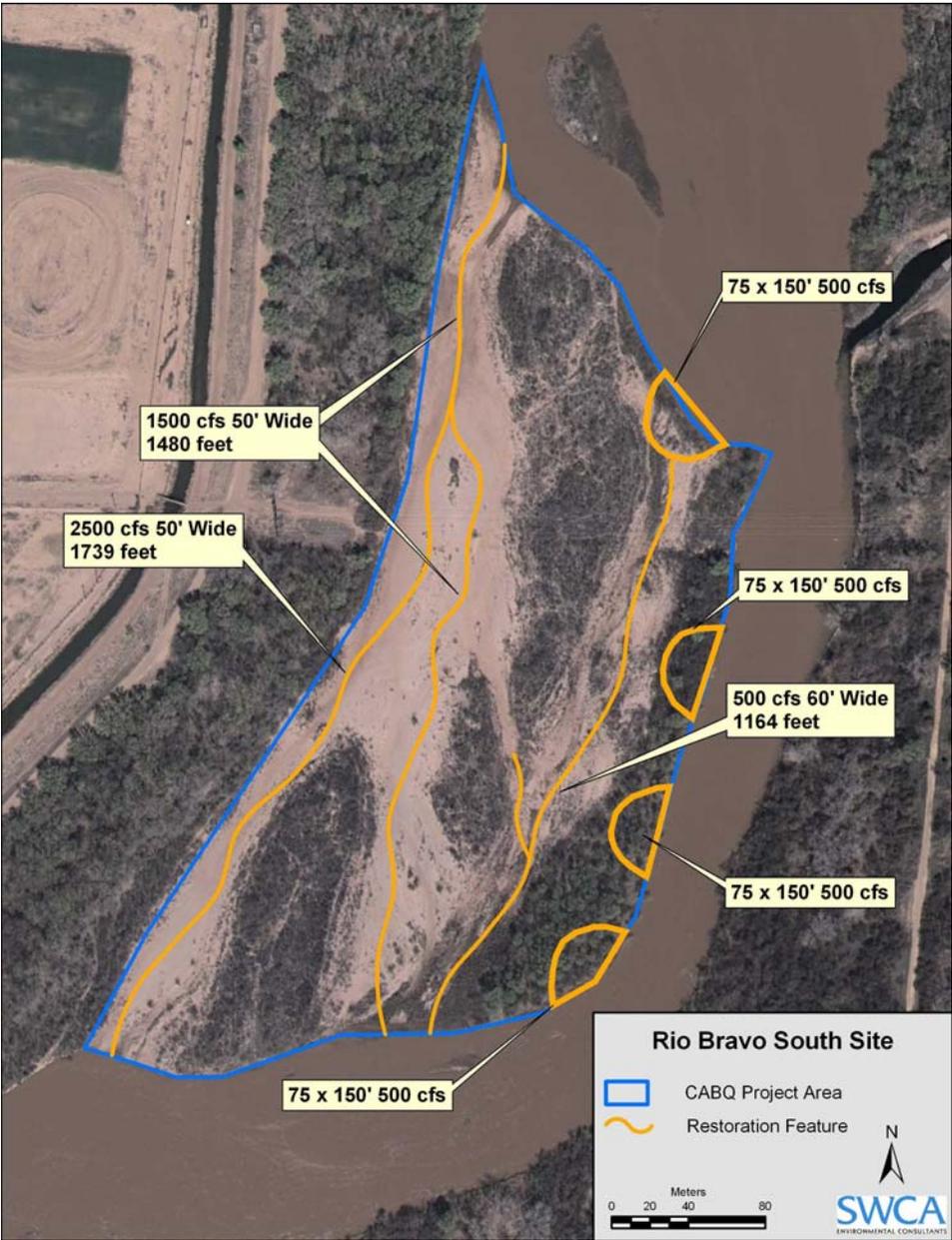


Figure 1.4. Techniques to be implemented at the Rio Bravo South Site include ephemeral channel construction, placement of LWD, bankline scours, and revegetation with native plant species.

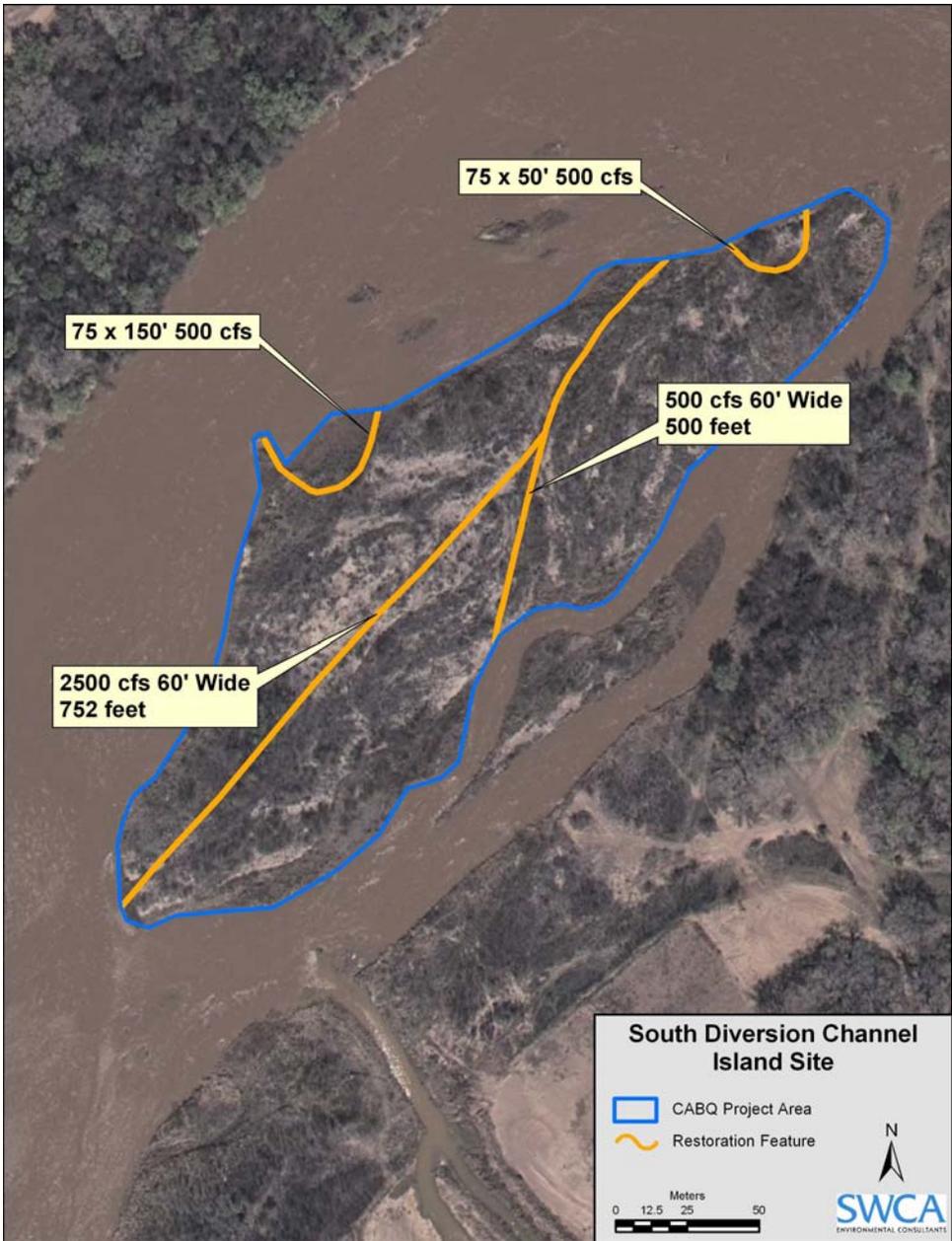


Figure 1.5. Techniques to be implemented at the SDC Island Site include ephemeral channel construction, placement of LWD, and bankline scours.

increase low-velocity habitat for silvery minnow and increase native vegetation recruitment for the benefit of flycatcher.

Modifications to the three project sites will take place outside of migratory-bird nesting season and during a period of low flow between spring 2007 and spring 2008. A total of 58.3 acres (23.6 ha) of habitat will be created as a result of the proposed Project, including 6,647 linear feet of low-flow and ephemeral channels, 1.5 acres of low-velocity scallop habitat, and 2.0 acres of surface-water catchments.

1.3 PURPOSE AND NEED

The purpose of the proposed action is to develop and construct rearing, young-of-year, and over-wintering habitat for Rio Grande silvery minnow and to thin non-native vegetation and create habitat for the benefit of southwestern willow flycatcher. The creation of silvery minnow and flycatcher habitat will be completed using various habitat restoration techniques at three locations within the Rio Bravo subreach of the Middle Rio Grande. Non-native vegetation thinning will be completed on a 20.3-acre point bar and a 6.5-acre island. Vegetation will be cleared using techniques described in the Collaborative Program's Habitat Restoration Plan for the Middle Rio Grande (Tetra Tech 2004). Vegetation clearing will benefit flycatcher by reducing competition between native and non-native vegetation, which will encourage the recruitment of dense native vegetation. Techniques used to create silvery minnow habitat will also benefit flycatcher by establishing open-water habitat adjacent to stands of native willow.

The Proposed Action is needed to satisfy federal requirements under the 2003 MRG BiOp (USFWS 2003). The BiOp requires the funding and collaborative execution of habitat restoration projects on the Middle Rio Grande that will improve survival of flycatcher and all life stages of silvery minnow, as specified in RPA element S (USFWS 2003).

The RPA directs the action agencies and the parties to the consultation to 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 and the flycatcher, or their habitats (USFWS 2003:95–96). It further directs the agencies to conduct a total of 1,600 acres of habitat restoration for silvery minnow and flycatcher, with areas north of the San Acacia diversion dam being of the highest priority in the short term.

1.4 ISSUES

ECOLOGICAL VALUES

The Rio Grande floodplain, including the riparian corridor or Bosque and the river channel, is highly valued by the residents of Albuquerque and New Mexico for its natural beauty, the recreational value of the natural trails, the importance of the area as a refuge for birds and other wildlife, and the presence of rare and protected species. The proposed project area is managed cooperatively by the City of Albuquerque Open Space Division and the Middle Rio Grande

Conservancy District (MRGCD). The proposed project area is part of the 4,300-acre Rio Grande Valley State Park, which extends south from Sandia Pueblo in the north through Albuquerque to Isleta Pueblo. Conservation of the Bosque's aesthetic, recreational, and ecological value is a high priority for the City and for surrounding communities. As a result, actions within the Rio Grande and its floodplain can be controversial.

ECONOMIC COMMITMENTS FOR ENDANGERED SPECIES RECOVERY

The Project will be partially funded by the Collaborative Program, a multi-agency body of signatories working to meet the terms of a comprehensive Biological Opinion covering the endangered silvery minnow and flycatcher in the Middle Rio Grande (USFWS 2003). Additional funding will be provided by the City as part of the local match to the Collaborative Program. Since the inception of the Collaborative Program, the federal government, through Reclamation, has been the source of funding for numerous projects. The 2003 MRG BiOp requires the funding and collaborative execution of habitat restoration projects to improve survival of all life stages of the flycatcher and silvery minnow and to aid in their recovery. The execution of the BiOp involves commitments of substantial economic resources by the signatories of the MRG Collaborative Program Memorandum of Agreement (MOA). NEPA disclosure and public comment on these commitments has not yet taken place. A Notice of Intent to file a Draft Environmental Impact Statement appeared in June 2003 (FR 2003a). In the absence of this NEPA document or a Record of Decision to tier from, this EA will not be able to fully evaluate economic consequences of the Project within the context of the entire economic commitment proposed for endangered species recovery. However, the funding expended to achieve habitat restoration will assist in avoiding jeopardy to the existence of silvery minnow and flycatcher and contribute to the recovery of these endangered species.