

Chapter 1. Purpose and Need

Introduction

This Draft Environmental Assessment (EA) documents the analysis of the potential environmental consequences of Reclamation providing a license for right-of-use for a proposed pipeline in accordance with the requirements of the National Environmental Policy Act of 1969 (NEPA). The New Mexico Interstate Stream Commission (NMISC) proposes to construct and operate a water delivery pipeline from the Seven Rivers Augmentation Wellfield to Brantley Reservoir (Figure 1). The Seven Rivers Wellfield development is discussed in and is tiered from the Long-term Miscellaneous Purposes Contract Final Environmental Impact Statement (July 2006) and the ROD issued August 2006. Tiering is provided for in NEPA (U.S. Council on Environmental Quality [CEQ]) Regulations Section 1502.20.

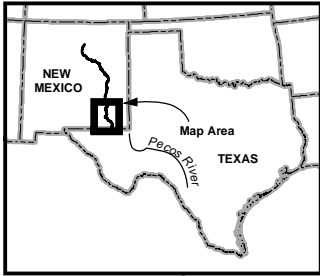
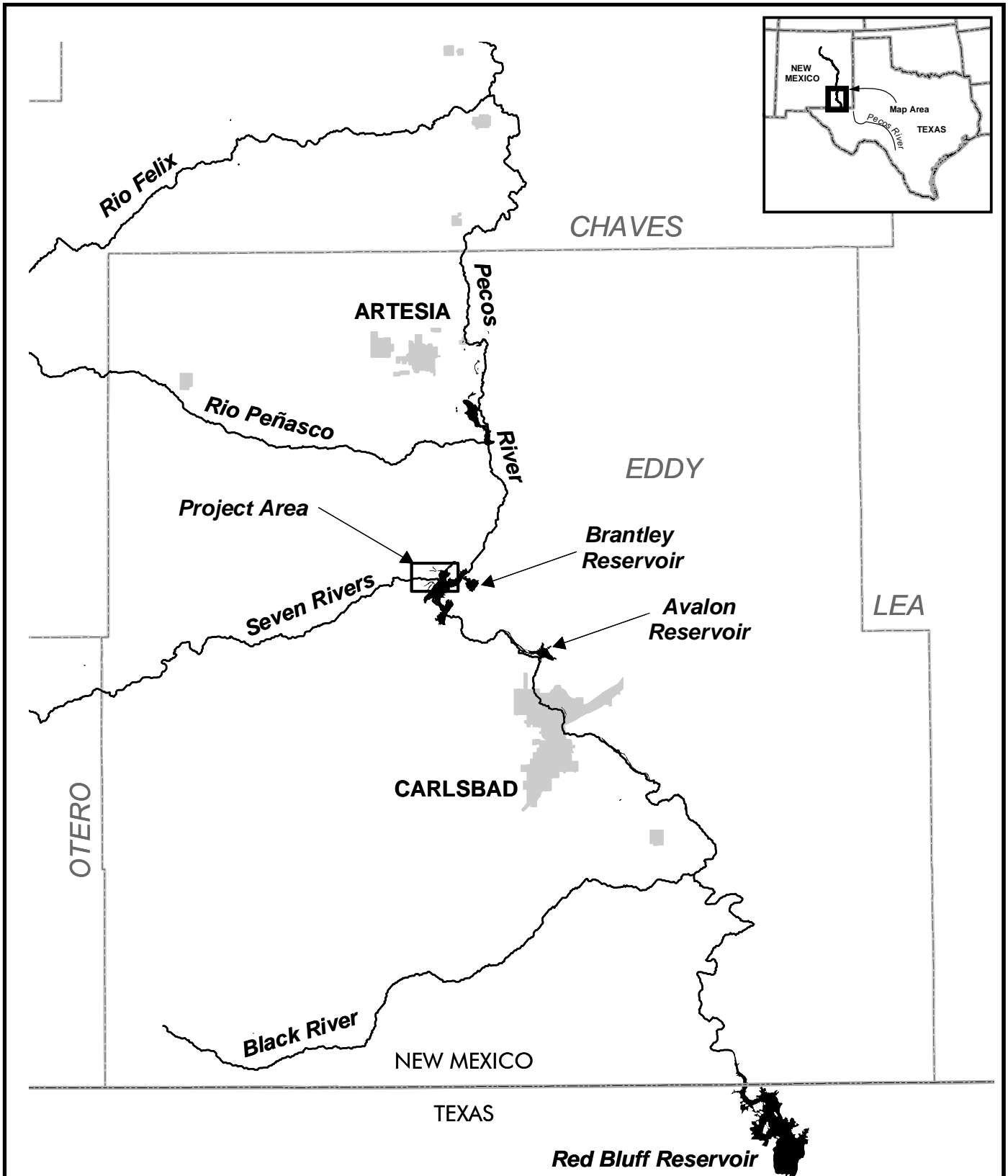
This chapter describes the purpose and need for the Proposed Action, and provides pertinent background information pertaining to the Proposed Action. Consultations or approvals that would be necessary to implement the Proposed Action are also discussed in this chapter.

Reclamation and NMISC are jointly preparing this EA and are responsible for all decisions involving preparation of the EA and issues arising during the NEPA process. Reclamation is the lead federal agency and is responsible for the Finding of No Significant Impact. The analysis in this EA complies with the provisions of NEPA and Reclamation's draft NEPA Handbook (2000).

This document is organized into six chapters:

- *Chapter 1 – Purpose and Need:* Presents information on the history of the proposed project, the purpose of and need for the project, and the lead agency's proposal for achieving that purpose and need. This section also details how the lead agency informed the public of the proposed project and how the public responded.
- *Chapter 2 – Comparison of Alternatives, including the Proposed Action:* Provides a detailed description of the lead agency's proposed action, alternative methods for satisfying the stated purpose and need, and key environmental issues regarding the proposed action and alternatives. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Chapter 3 – Affected Environment and Environmental Consequences:* Describes the environmental effects of implementing the proposed action and other action alternatives. The analysis is organized by affected resource topic. Within each section, the affected environment is described first, followed by the effects of no action, the proposed action, and other action alternatives. The final section in Chapter 3 describes Cumulative Effects.
- *Chapter 4 – Agencies and Persons Consulted:* Lists preparers and agencies consulted during the development of the EA.
- *Chapter 5 – Environmental Laws and Directives:* Lists relevant federal environmental laws and directives.
- *Chapter 6 – Literature Cited:* Lists documents used in the preparation of this EA.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the EA.

Reclamation proposes to grant a license for right-of-use to the NMISC for pipeline construction and operation on federal property, specifically those Reclamation-administered lands that surround Brantley Reservoir.



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— County Boundary

1 Inch = 11 Miles



Figure 1
Project Location

File: 2300-SR_ProjectLocation.mxd (JP)
 Date: December 7, 2006

Purpose and Need for Action

This section describes the purpose of and need for the Proposed Action. The purpose of the Proposed Action is to deliver water from the Seven Rivers Augmentation Wellfield to Brantley Reservoir for use as Carlsbad Project water. The proposed augmentation well field pipeline would address two primary needs along the Pecos River. The NMISC needs to augment the Carlsbad Irrigation District (CID) water supply as partial fulfillment of the Settlement Agreement (see below); and as a member of CID and under the Pecos River Settlement Agreement, the NMISC needs to use Carlsbad Project water to maintain long-term compliance with the Pecos River Compact (Compact) and the United States Supreme Court Amended Decree in *Texas v. New Mexico*. Delivery of water from the augmentation well field has independent utility for the NMISC apart from the Settlement Agreement.

Background

The Seven Rivers Augmentation Wellfield and proposed pipeline to Brantley Reservoir are located in southeastern New Mexico (Figure 1) on the Pecos River. Brantley Reservoir is part of the Carlsbad Project, a Reclamation irrigation project that provides water for the CID near Carlsbad, New Mexico. Reclamation owns Brantley Reservoir, and diverts to storage and delivers Carlsbad Project water to CID. CID operates Brantley Dam and Reservoir, and other Carlsbad Project facilities, under an operation and maintenance contract and repayment contract with Reclamation.

NMISC oversees interstate stream compacts and interstate stream litigation, and cooperates in the planning of federal water projects. NMISC is responsible for ensuring that the State of New Mexico meets its water delivery requirements to the State of Texas as measured at the state line, and for complying with the 1948 Pecos River Compact and the 1988 *Texas v. New Mexico* U.S. Supreme Court Amended Decree (485 U.S. 388). In 1992, NMISC began leasing Project water as part of its Water Resource Conservation Project to ensure continued compliance with the Pecos River Compact and Amended Decree.

In 2003, the New Mexico Office of State Engineer (NMOSE), NMISC, Reclamation, CID, and the Pecos Valley Artesian Conservancy District (PVACD) entered into a Settlement Agreement that resolves water issues (Lewis Case-Carlsbad Project Phase), implements a plan to ensure delivery of water to the CID and state line, and settles many water management issues on the Pecos River. Section 9 of the Settlement Agreement describes the augmentation pumping, which requires the NMISC to pump water to the Pecos River in order to augment the Pecos River flow.

NMISC currently is constructing wellfields west of Brantley Reservoir in part to meet the requirements of the Settlement Agreement. When completed, the wellfields will consist of up to 16 wells, some of which have been constructed. Currently, ten wells are planned in the western area (Price Farm and Home Farm Systems; see Figure 2) and three in the northern area (Lewis Farm System). Up to three additional existing wells may be added to the system in the future, if the additional capacity is needed.

Reclamation completed a Categorical Exclusion for funding to complete environmental studies and compliance on February 14, 2006. The control number for that Categorical Exclusion is ALB-CE-06-0021. In addition, the Seven Rivers Wellfield development is discussed in the Carlsbad Project Water Operations and Water Supply Conservation Final Environmental Impact Statement (Reclamation 2006a).

Authorizing Actions, Licenses, and Permits

Implementation of the proposed action could require authorizations and permits from state and federal agencies:

- Reclamation authorization needed to construct and operate facilities on Reclamation lands

- Permit from the U.S. Army Corps of Engineers (Corps) in compliance with Section 404 of the Clean Water Act, as amended (permit has been acquired; see Appendix A)
- New Mexico Department of Transportation permit to install utility facilities in a public right-of-way

Decision to be Made

Reclamation is the lead federal agency responsible for determining whether the proposed action will have a significant effect on the human environment. If the EA demonstrates that the environmental consequences are not significant, Reclamation will issue a Finding of No Significant Impact (FONSI). The FONSI will allow the project to proceed without preparation of an Environmental Impact Statement (see Chapter 5 for additional environmental compliance requirements).

Chapter 2. Proposed Action and Alternatives

This EA analyzes one design alternative for addressing the purpose and need for the project. Several alternative pipeline alignments were considered but eliminated due to impacts on cultural resources. The No Action Alternative is included as a baseline for comparing potential effects of the action alternative.

No Action Alternative

Under the No Action Alternative, Reclamation would not provide a license for right-of-use to the NMISC. The NMISC would not construct a pipeline and associated facilities through Reclamation-administered land to Brantley Reservoir. In the absence of a license from Reclamation, the NMISC would construct an alternative pipeline alignment that would release wellfield water into South Seven Rivers arroyo upstream of federal property. This alternative would not be practical because water delivered to the arroyo would be lost to a variety of reasons prior to reaching Brantley Reservoir, including:

1. High seepage to the shallow aquifer underlying the arroyo;
2. Heavy infestations of salt cedar;
3. Presence of multiple earthen dams (height 7 to 8 feet) perpendicular to the arroyo channel.

In the No Action Alternative, a buried pipeline network would carry water from 10 to 13 wells (Price Farm System and Home Farm System) to the South Seven Rivers arroyo (see Figure 2). Total pipeline length would be 7.3 miles, and maximum disturbance width would be 50 feet, resulting in a temporary disturbance area of 44.2 acres. Under the No Action Alternative, the Lewis Farm System would likely be abandoned due to the lack of a feasible way to get the water to the reservoir. To meet project water demands, it would be desirable to increase the volume pumped by the Price Farm System and the Home Farm System to compensate for the loss of the Lewis Farm System's capacity; however, this is not physically possible due to pumping constraints.

The maximum pipe diameter would be 42 inches, designed to carry a total of 22,400 gallons per minute (gpm) from the Price and Home Farm Systems. The Price Farm System would operate under gravity flow conditions, and the Home Farm system would require pressurization with pumps. An outfall/stilling basin structure would be constructed to prevent erosion damage during pumping and discharge. The final dimensions of the outfall/stilling basin structure would be 20 feet by 25 feet. Riprap scour protection would be placed at the base of the outfall/stilling basin structure.

Upgrades to existing power supply lines and new power supply lines would be required for well pumps and pipeline pressurization (see Figure 2). New power supply lines for the well pumps would be placed in the same disturbance area as the water pipeline. About 3.1 miles of the existing power supply system