

# RECLAMATION

*Managing Water in the West*

## **PROPOSED REHABILITATION SAN CARLOS IRRIGATION PROJECT FACILITIES**

**Pinal County, Arizona**

Scoping Information  
and  
Opportunity to Comment

**U.S. Department of the Interior  
Bureau of Reclamation  
Phoenix Area Office**



**August 2010**

## **INTRODUCTION**

This Scoping Notice is being offered to the public to allow early and meaningful participation in the National Environmental Policy Act (NEPA) review of an irrigation system rehabilitation project proposed by the San Carlos Irrigation and Drainage District (SCIDD) with funding provided by the U.S. Department of the Interior Bureau of Reclamation (Reclamation). After the public scoping period has ended, Reclamation, as the lead Federal agency, will prepare an Environmental Impact Statement (EIS) to evaluate the potential environmental consequences of the proposed project. The Gila River Indian Community/Pima-Maricopa Irrigation Project (P-MIP), the Bureau of Indian Affairs (BIA)/San Carlos Irrigation Project (SCIP), and SCIDD will serve as cooperating agencies in the preparation of the EIS.

The proposed project includes rehabilitation and modernization of the BIA/SCIP water delivery facilities that convey irrigation water to both SCIDD and Gila River Indian Community lands, and the improvement of facilities used to distribute water and manage drainage within SCIDD. The EIS will consider development of water exchanges to transfer SCIDD-conserved water upstream to maintain a permanent fish pool in San Carlos Reservoir. Also, Gila River water exchanges will be considered with the Central Arizona Project (CAP) to facilitate the continuation of water deliveries during construction of canal improvements and to facilitate long-term operational reliability of the SCIP system. The EIS will also consider the potential for hydropower generation. Implementation of the project would require land acquisition.

Work to be completed under the EIS will address water delivery facilities in the project area downstream of the Ashurst–Hayden Diversion Dam. The project area includes lands near the communities of Casa Grande, Coolidge, and Florence in Pinal County, Arizona (Figure 1). Execution of water exchanges could affect water releases from the San Carlos Reservoir; hence, the project area also includes a reach of the Gila River between Ashurst–Hayden Diversion Dam and Coolidge Dam in Pinal and Gila counties, Arizona.

## **BACKGROUND**

In 1976, the Gila River Indian Community filed claims with the court to have its water rights quantified. These efforts culminated in the promulgation of the Gila River Indian Community Water Rights Settlement Agreement (Amended and Restated, Final Version, October 21, 2005), and Title II of the Arizona Water Settlements Act (AWSA) (Public Law 108-451, December 10, 2004). Section 203 of the AWSA authorizes the execution of the Gila River Indian Community Water Rights Settlement Agreement and directs the Secretary of the Interior to provide for the rehabilitation and replacement of SCIP water diversion and delivery works, including the Joint Works, with funds provided by Reclamation under Section 403(f)(2) of the Colorado River Basin Project Act (Public Law 90-537, as amended). In addition, Section 203 designates Reclamation as the lead agency with respect to environmental compliance and for oversight of construction and rehabilitation of SCIP diversion and delivery facilities.

The SCIP conveyance facilities transport water from the Gila River and the CAP Aqueduct to 50,546 acres of Indian farmland located on the Gila River Indian Reservation and served by P-MIP, and 50,000 acres of non-Indian farmland located outside of the Gila River Indian Reservation and served by SCIDD. Major components of the SCIP Joint Works include Coolidge Dam and Picacho Reservoir, the Ashurst–Hayden Diversion Dam, the Florence-Casa Grande Canal (FCG), and the Pima Lateral. No modifications to Coolidge Dam and Picacho Reservoir are included in this project.

The first stage of rehabilitation, which was addressed in a separate Environmental Assessment, included the repair of the Ashurst–Hayden Diversion Dam, construction of a settling basin, and development of sediment handling and storage facilities. The remaining work, addressing facilities downstream of the settling basin, is the subject of this EIS.

## **PURPOSE AND NEED**

The purpose of the project is to conserve water, reduce operation and maintenance costs, and improve service to SCIDD and Gila River Indian Community lands. The SCIP system consists of more than 95 miles of main canals that are unlined. Water losses attributable to infiltration and evapotranspiration are significant. Operation and maintenance of the canal system are challenging and costly because of aging structures, wide cross sections relative to service area, length of conveyance facilities, and volume of water delivered.

## **PROPOSED ACTION**

The proposed action includes the reconstruction and lining of the FCG Canal and the Casa Grande Canal, and the construction of cross-drainage features to convey storm water across the canal alignment and new control structures to improve operation of the rehabilitated canals. The proposed action would also rehabilitate the Florence Canal, which would be converted to a linear park/recharge feature, and the existing FCG Canal Extension would be converted to a drainage/recharge feature. Lands now served from the Florence Canal would be served from the new FCG Canal. A new canal would connect the FCG Canal with the Casa Grande Canal, requiring new construction and acquisition of right-of-way. All lands west of Picacho Reservoir would be served from the rehabilitated Casa Grande Canal.

The proposed action also includes relocating and lining SCIDD laterals or placing reaches of those laterals in pipeline to accommodate changes in land use within the SCIDD service area.

A portion of the water that is conserved from lining the SCIP canals would be made available to the Secretary of the Interior for exchange to the San Carlos Reservoir to maintain a permanent minimum pool in the reservoir for fish and wildlife. Water that is exchanged for this purpose would be retained in the San Carlos Reservoir and not released to the Gila River.

## ALTERNATIVES TO THE PROPOSED ACTION

A no action alternative must always be evaluated in an EIS (40 Code of Federal Regulations [CFR] Part 1502.14). “No action” represents a projection of current conditions and reasonably foreseeable actions to the most reasonable future conditions that could occur during the life of the project without any action alternatives being implemented. The no action alternative provides a baseline for comparison of the environmental effects associated with the action alternatives.

In addition to no action and the proposed action, several action alternatives were developed under two categories. The first category of alternatives, referred to as system alignment alternatives, involves the conveyance features of the main canal system and represents various canal alignments. As with the proposed action, these alternatives are designed to reduce the length of main canal needed to serve project lands, and capture and manage storm water runoff and excess diversions.

The second category of alternatives, referred to as common alternatives, includes project elements that can be developed and analyzed independently of alternative alignments for rehabilitation of the main canal system. Each of the system alignment alternatives, including that of the proposed action, can be paired with any of the common alternatives.

### System Alignment Alternatives

Alternative A. A new lined FCG Canal would be constructed adjacent to the existing canal, and the existing canal would be used as a drainage channel to intercept surface water runoff and to convey runoff and excess diverted flow from the Gila River to Picacho Reservoir for temporary storage. The Florence Canal would not be modified and would receive water through interties with the new FCG Canal. Drainage flows conveyed to Picacho Reservoir would be available for use by SCIDD and the Gila River Indian Community. This alternative includes construction of a link canal around the northwest side of Picacho Reservoir to convey water from the rehabilitated FCG Canal to the rehabilitated Casa Grande Canal. West of Picacho Reservoir, all water deliveries would be from the Casa Grande Canal and the FCG Canal Extension would be converted to a drainage/recharge feature.

Alternative B. The FCG Canal would be rehabilitated and lined to serve as the sole conveyance between the Ashurst–Hayden Diversion Dam and the Pima Lateral Interconnection. The Florence Canal, from its headworks to its siphon undercrossing of the Pima Lateral, would be abandoned and the right-of-way retained for SCIDD uses such as flood management. Lands now irrigated from this reach of the Florence Canal would receive water from the rehabilitated FCG Canal through a series of connector pipelines. Downstream of the Pima Lateral, SCIDD laterals would be served from a rehabilitated and lined Florence Canal that would be extended along the north side of Picacho Reservoir to connect with the Casa Grande Canal. This extension would involve new construction and right-of-way acquisition. The FCG Canal between the Pima Lateral Interconnection and Picacho Reservoir would be converted to an interceptor drain and channel for conveying flood waters to the reservoir. Downstream of Picacho Reservoir, all water deliveries would be from the Casa Grande Canal and the FCG Canal Extension would be converted to a drainage/recharge feature.

## **Common Alternatives**

New Mid-system and Lower-system Reservoirs. Consideration would be given to the siting of new mid-system and/or lower-system reservoirs to store irrigation water. The new reservoirs would provide a means to regulate flows to reduce variability and to allow improved delivery flexibility. These reservoirs would supplement the water storage capacity of Picacho Reservoir. The sites currently under consideration may also afford suitable conditions for the generation of hydropower.

Gila River Water Exchanges. In addition to water exchanges to allow SCIDD-conserved water to be retained in San Carlos Reservoir to support a permanent fishery pool, exchanges of Gila River water with CAP water are proposed to allow flexibility during rehabilitation of the Florence-Casa Grande Canal and facilitate long-term operational reliability of the SCIP system. This action would require implementation of an exchange agreement between the Central Arizona Water Conservation District and the construction of new interties with the CAP Aqueduct.

Installation of Fish Barrier. To prevent nonnative fish known to be present in the CAP Aqueduct from swimming upstream into the Gila River, two options are under consideration: (1) construction of a new physical fish barrier and (2) rehabilitation or replacement of the existing electric fish barrier.

Decommissioning of China Wash Flume. Because of its poor physical condition and because it is unlikely to align with the vertical profile of the rehabilitated FCG Canal, the China Wash Flume will be decommissioned. Specifics of decommissioning will comply with its status as a historic structure.

Replacement of U.S. Geological Survey Flow Measurement Structure at China Wash. The U.S. Geological Survey flow measurement structure at China Wash will be replaced by a new measurement facility at this location.

North Side Canal Service Area. Three alternatives are under consideration for the North Side Canal service area:

- Supply irrigation water to the North Side Canal service area from a combination of surface and groundwater sources. This option would line the existing canal, rehabilitate/replace canal structures, repair the existing wells, and install new wells.
- Supply the North Side Canal service area irrigation needs solely with groundwater. This option would repair existing wells and install new wells.
- Supply CAP water to the North Side Canal service area through implementation of an exchange agreement between SCIDD and the Central Arizona Water Conservation District. This would allow rehabilitated North Side Canal facilities to receive CAP water through proposed and existing interties with the CAP Aqueduct.

Relocation and Rehabilitation of SCIDD Laterals. To realize the benefits of the improvements to the main canal system, the rehabilitation program includes relocation and lining of SCIDD laterals or placing reaches of those laterals in pipelines to accommodate changes in land use within the SCIDD service area.

## **DECISION FRAMEWORK**

The Responsible Official for the EIS is the regional director of Reclamation's Lower Colorado Region. This official must decide whether to implement the proposed action or an alternative action that would meet the purpose and need.

## **PRELIMINARY ISSUES**

In accordance with Department of the Interior NEPA regulations at 43 CFR Part 46, Reclamation has determined that an EIS is the appropriate level of NEPA compliance to evaluate the potential environmental consequences of the proposed project. NEPA applies to Federal actions; therefore, the first step in determining the scope of the EIS is to identify key issues related to the effect of the proposed Federal action on the existing environment. Public input during this initial scoping process will help to focus the EIS on relevant environmental issues.

At a minimum, it is anticipated that the following issues will be addressed in the EIS:

- Effects to biological resources (including special status species)
- Effects to cultural resources
- Effects to air quality
- Effects to water quality
- Effects to land use and ownership
- Effects to Indian trust assets
- Socioeconomic considerations

## **PUBLIC MEETING**

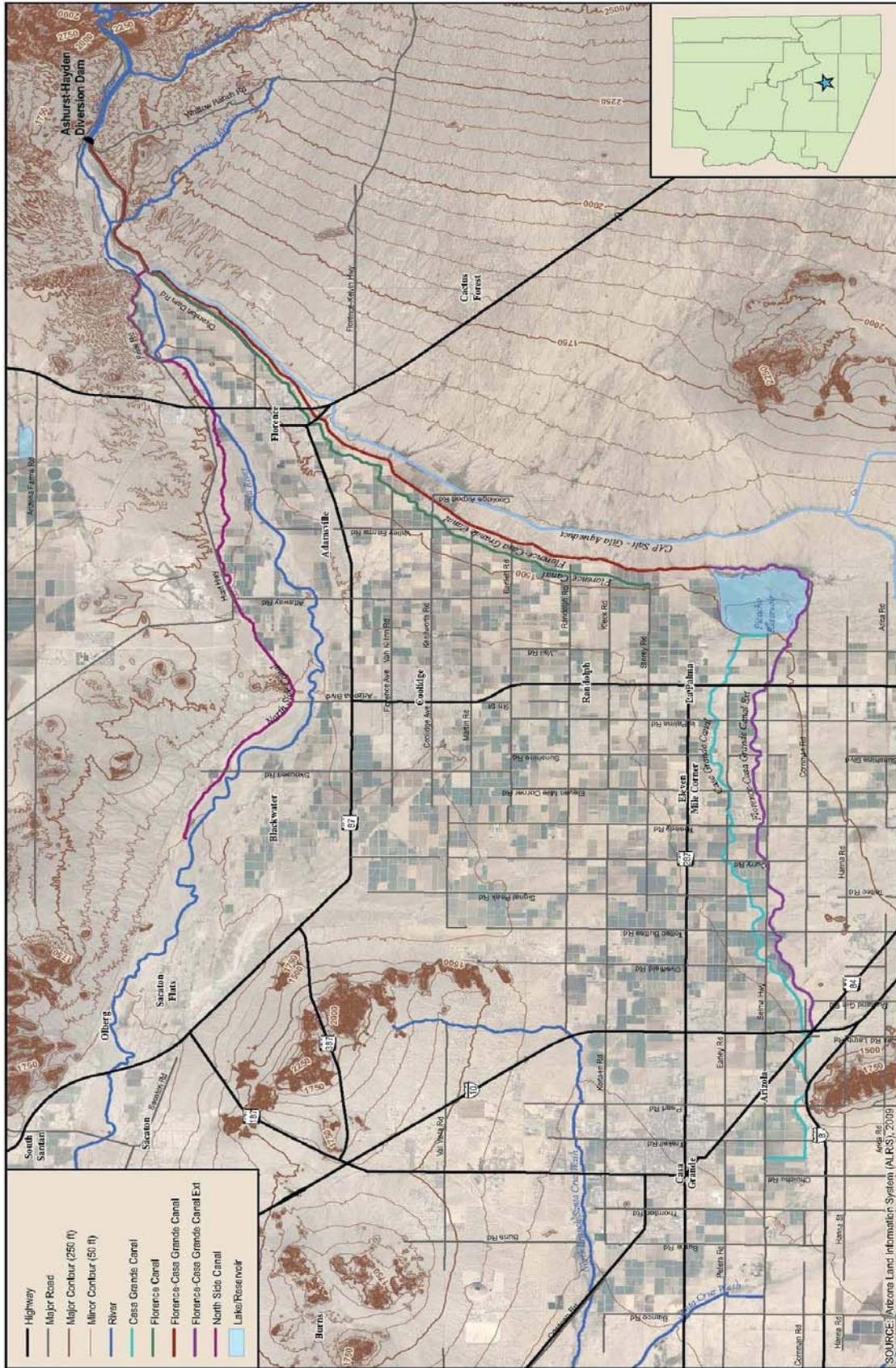
A scoping meeting will be held to solicit public input on the scope of the environmental document, including alternatives, concerns, and issues to be addressed in the EIS. The scoping meeting will be conducted using an open-house format. The meeting will be held from 10 a.m. to 2 p.m. on Saturday, September 18, 2010, at the Coolidge Police Department, City Council Chambers, 911 S. Arizona Blvd., Coolidge, Arizona.

## **HOW TO COMMENT AND TIME FRAME**

You are encouraged to offer comments on the scope of the upcoming EIS, including potential environmental issues and alternatives to the proposed project that would meet the stated purpose and need. Your comments should be submitted by October 18, 2010, in order to be considered in the draft EIS. Please include your full name, address, and project title (Proposed Rehabilitation: San Carlos Irrigation Project Facilities) with your comments. Comments should be submitted to Mr. John McGlothlen, Bureau of Reclamation, 6150 W. Thunderbird Road, Glendale, AZ 85306. Facsimiles may be sent to Mr. McGlothlen at 623-773-6486. Hand-delivered written comments may be submitted to the above address Monday through Friday between 7:30 a.m. and 4 p.m., excluding Federal holidays. E-mail comments may be submitted to [jmcglothlen@usbr.gov](mailto:jmcglothlen@usbr.gov).

By law, the names and addresses of those providing comments are available for public review. However, individuals may request that their name and/or address be withheld from the record. These requests will be honored to the extent allowable by law. If you wish your name and/or address withheld, you must state this prominently at the beginning of your comment letter. All comments from organizations or businesses will be available for public inspection in their entirety.

For additional information concerning the proposed project, please contact Mr. McGlothlen at the address above, by telephone at 623-773-6256, or by email at [jmcglothlen@usbr.gov](mailto:jmcglothlen@usbr.gov).



- Highway
- Major Road
- Major Contour (250 ft)
- Minor Contour (50 ft)
- River
- Cassa Grande Canal
- Florence Canal
- Florence-Cassa Grande Canal
- Florence-Cassa Grande Canal Ext
- North Side Canal
- Lake/Reservoir

**REGIONAL SETTING**

AUGUST 2009 **DRAFT** **FIGURE 1**

**San Carlos Irrigation Project Rehabilitation**

San Carlos Irrigation and Drainage District

Pinal County, Arizona

5 2.5 0 5 Miles

SOURCE: Arizona Land Information System (ALRIS), 2009