

RECLAMATION

Managing Water in the West

Final Environmental Assessment

4-Mile Post Lift Station and Pipeline Improvements Project, Pinal County, Arizona



U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Phoenix Area Office
Glendale Arizona

July 2017

Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Final Environmental Assessment

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**U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Phoenix Area Office
Glendale Arizona**

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Acronyms and Abbreviations

A.D.	Anno Domini
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AQP	Air Quality Program
BIA	Bureau of Indian Affairs
CAP	Central Arizona Project
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	Cubic Feet Per Second
COE	U.S. Army Corps of Engineers
CRMP	Cultural Resource Management Program
CWA	Clean Water Act
DOI	Department of the Interior
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FPEIS	Final Programmatic Environmental Impact Statement
FR	Federal Register
GRIC	Gila River Indian Community
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollution Discharge Elimination System
O&M	Operations and Maintenance
PL	Public Law
PM ₁₀	Particulate matter with a diameter less than 10 microns
P-MIP	Pima-Maricopa Irrigation Project
PVC	Polyvinyl Chloride
Reclamation	Bureau of Reclamation
SCADA	Supervisory Control and Data Acquisition
SCIP	San Carlos Irrigation Project
SHPO	State Historic Preservation Office
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
USC	U.S. Code

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1.0 Introduction

1.1 Background

In accordance with the National Environmental Policy Act of 1969, (P.L. 91-190) the Bureau of Reclamation has prepared this Environmental Assessment (EA) to evaluate the potential impacts resulting from the proposed 4-Mile Post Lift Station and Pipeline Improvements Project (Project). The Project is located west of Coolidge in Pinal County, Arizona, within the Gila River Indian Reservation in portions of Township 4 South, Range 6 East, Sections 24 and 25, and Township 4 South, Range 7 East, Section 19 (Gila and Salt River Baseline and Meridian; Figure 1).

The Pima-Maricopa Irrigation Project (P-MIP) was established by the Gila River Indian Community (GRIC) in 1995 to design and construct a water conveyance system to deliver irrigation water to up to 146,330 acres on the Gila River Indian Reservation. P-MIP is a tribal program funded through Reclamation under the authority of the Master Repayment Contract between the GRIC and the United States of America made pursuant to the Reclamation Act of June 17, 1902 (32 Stat. 388), and any acts amending or supplementing it, including the Reclamation Project Act of August 4, 1939 (53 Stat. 1187), the Colorado River Basin Project Act of September 30, 1968 (82 Stat. 885, 43 U.S.C. § 1501), and the Leavitt Act of July 1, 1932 (47 Stat. 564). In addition, the P-MIP is funded through Title II of the Arizona Water Settlements Act of 2004, Public Law 108-451, to rehabilitate and construct the new San Carlos Irrigation Project (SCIP) delivery system. Additional background regarding the P-MIP is available in the Final Programmatic Environmental Impact Statement (FPEIS) for the Pima-Maricopa Irrigation Project (Reclamation 1997) and the Final EA for the Blackwater Area Project (Reclamation 2003).

The original conveyance facilities were begun by Bureau of Indian Affairs (BIA) Irrigation Rehabilitation in the mid-1990s. In 2001, the P-MIP inherited these facilities, and in 2007 completed the original 4-Mile Post lift station and pipeline. The lift station is designed to provide irrigation water during times of water shortage to about 10,450 acres of land under lease to Gila River Farms. The original facilities included a 30-inch polyvinyl chloride (PVC) pipeline connecting the Southside Canal up-gradient with the Pima Lateral 5,850 feet down-gradient.

1.2 Project Location

The project area considered in this EA is located in the south-central part of the Gila River Indian Reservation, about two miles southeast of Sacaton in Pinal County, Arizona (Figure 1). The project area is bounded by the Southside Canal to the south, Olberg Road to the southeast, State Route (SR) 187 to the west, and the existing 4-Mile Post lift station to the north.

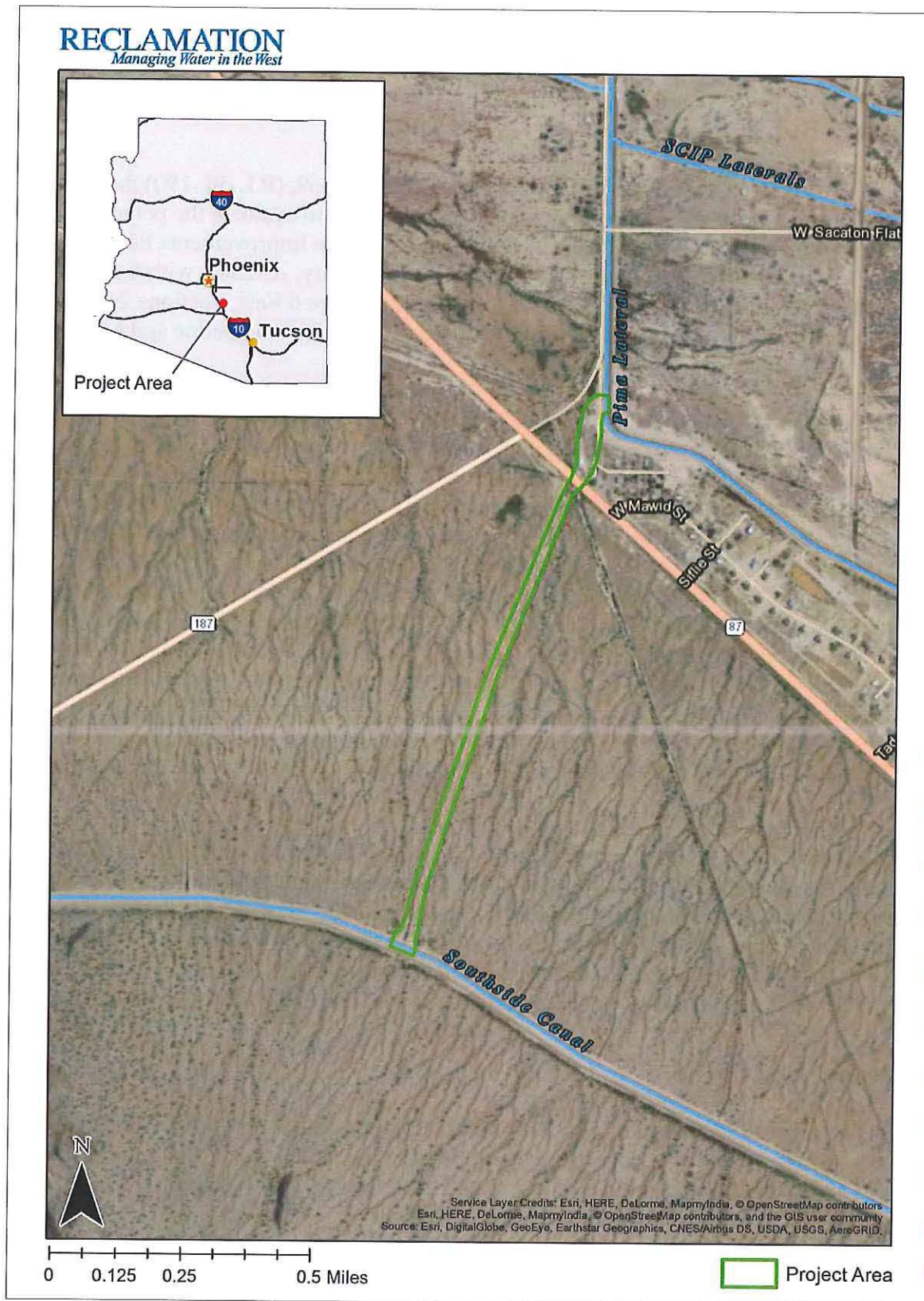


Figure 1. Project Location

1.3 Purpose and Need

The primary purpose of the proposed Project is to increase capacity within the SCIP Southside Canal, which is the primary water supply for the Gila River Farms. This increased capacity is needed to convey an alternate, pooled water supply that includes Gila River (Globe Equity 59) surface and ground water from the Pima Lateral up-gradient to the Southside Canal to be used should a water shortage be declared on the Colorado River. The existing easement needs to be expanded to encompass existing access routes and newly constructed irrigation infrastructure. No increase in irrigated acres would occur as a result of the Proposed Action.

1.4 Public Involvement

Scoping letters were mailed to federal, state, local, and tribal parties, and other potential stakeholders and interested parties on April 27, 2017. A response from one agency was received regarding compliance with the Clean Water Act.

Reclamation distributed a Notice of Availability and posted the draft EA on the Phoenix Area Office website for public and agency review in June 2017 and accepted comments until July 12, 2017. No comments were received on the draft EA.

1.5 Decisions to be Made

The Responsible Official for Reclamation (Area Manager of the Phoenix Area Office) must determine whether the Proposed Action would have significant impacts on quality of the human environment, and therefore whether an Environmental Impact Statement must be prepared.

1.6 Prior Compliance with National Environmental Policy Act

This EA is tiered to the Final Programmatic Environmental Impact Statement for the Pima-Maricopa Irrigation Project (Reclamation 1997). This EA has been prepared in compliance with the National Environmental Policy Act of 1969, as amended (NEPA), Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR], Parts 1500-1508), Reclamation's NEPA Handbook, Floodplain and Wetlands Executive Orders 11988 and 11990, the Federal Endangered Species Act (ESA) (Public Law [PL] 93-205, as amended), and the National Historic Preservation Act (16 U.S. Code [USC] 470).

2.0 Proposed Action and Alternatives

2.1 Description of the Proposed Action

Under the Proposed Action, P-MIP would expand an existing pipeline easement, and construct a new pipeline and lift station (Appendix A). Design for the new lift station would include two 30-cubic feet per second (cfs) vertical-turbine pumps, variable frequency drives, supervisory control and data acquisition (SCADA) control systems, ancillary electrical equipment, and surge

tank. Two 54-inch slide gates would be installed at the inlet and outlets of the pipeline. Various pumps, motors, and a wet well would be constructed as part of the new lift station. The new lift station would be constructed within a new walled compound adjacent to and south of the existing lift station. The proposed lift station footprint would be about 90 feet by 87 feet (0.18 acre). Electrical and other site improvements would be completed. The new lift station would be adjacent to the existing lift station, and would lift water about 75 vertical feet and convey it via pipeline to the Southside Canal; reverse flows would gravity feed down the pipeline into the Pima Lateral. The existing lift station would remain operational.

The new pipeline would consist of 5,770 feet of new 48-inch PVC pipeline and 80 feet of 60-inch rubber-gasketed concrete cylinder pipeline. An approximately 8.5-foot-deep trench would be excavated for the pipeline installation. The delivery system for the pipeline would consist of a single concrete inlet structure on the Pima Lateral and a single concrete outlet structure on the Southside Canal. A stubbed Y would be installed on the 48-inch pipeline just south of the new lift station to manage reverse flows, and also to provide for a future outlet to the Pima Lateral. Up to three air release valves would be installed on the pipeline; no other control or turnout structures are anticipated. There would be a single jack and bore operation under SR 87 for construction of the pipeline, which would require coordination with Arizona Department of Transportation (ADOT) and an ADOT encroachment permit. A new 20-foot-wide dirt access road would be constructed adjacent to the new pipeline for operations and maintenance (O&M) activities, and to provide access to SR 87.

The existing pipeline easement is 13.05 acres. The existing pipeline easement would be expanded from 100 feet to 150 to encompass existing access routes, as well as the new O&M routes and features of the current Proposed Action. The acreage of the expanded easement would be 19.13 acres.

No temporary construction easements, sub-laterals, or field ditches would be required for the Proposed Action. Construction is anticipated to begin in July 2017 and be will completed no later than March 1, 2018.

2.2 No Action

Under the No Action alternative, the improvements to the 4-Mile Post lift station and pipeline would not be constructed, and additional water would not be available during declared water shortages on the Colorado River. No additional or expanded easements would be acquired.

2.3 Alternatives Considered but Eliminated from Further Study

The P-MIP considered acquiring reduced easements for the Proposed Action. However, this alternative would not meet the purpose and need as it would not adequately encompass infrastructure and support features of the proposed Project.

3.0 Affected Environment, Environmental Consequences, and Cumulative Effects

This chapter describes the affected environment (existing setting or baseline conditions) and analyzes the potential environmental consequences (impacts or effects) that would occur as a result of implementing the proposed project. Reclamation takes a “hard look” at all potential impacts by considering the direct, indirect, and cumulative effects of the proposed action on the environment, along with connected and cumulative actions. In those cases where impacts are either not anticipated or are expected to be negligible, the issues and impact topics are dismissed from detailed analysis. As described in NEPA regulations, NEPA analysis should focus on issues that are truly significant to the action in question, rather than amassing needless detail (CEQ NEPA regulations, 40 CFR 1500.1 (b)).

Because the 4-Mile Post lift station and pipeline are existing facilities, and the Project area is well-defined and has been previously disturbed, Reclamation has determined that the Proposed Action would have little or no adverse effect on resources in the Project area. Table 3-1 identifies the resource topics dismissed from detailed analysis in this EA. Generally, issues and impact topics are dismissed from detailed analysis for one or more of the following reasons:

- The resource does not exist in the analysis area.
- The resource would not be affected by the proposal, or the likelihood of impacts are not reasonably expected (i.e., no measurable effects).
- Through the application of mitigation measures, there would be minor or less effects from the proposal, and there is little controversy on the subject or reasons to otherwise include the topic.

3.1 Resources Eliminated from Further Study

TABLE 3-1. RESOURCES CARRIED FORWARD OR EXCLUDED FROM FURTHER STUDY WITH RATIONALE

Resource Area	Analysis or Exclusion Justification
Air Quality	Analyzed in full.
Climate	Not analyzed; no measurable effects.
Cultural Resources	Analyzed in full.
Environmental Justice	Not analyzed; no disproportionate effects.
Floodplains	Not analyzed; no measurable effects.
Geology and Soils	Analyzed in full.
Hazardous or Solid Wastes	Not analyzed; no measurable effects.
Indian Trust Assets	Analyzed in full.
Land Use	Not analyzed; no measurable effects.
Prime or Unique Farmlands	Not analyzed; does not exist in the analysis area.

Resource Area	Analysis or Exclusion Justification
Public Health and Safety	Not analyzed; no measurable effects.
Socioeconomics	Not analyzed; no measurable effects.
Threatened and Endangered Species	Not analyzed; does not exist in the analysis area.
Vegetation	Analyzed in full.
Visual Resources	Not analyzed; no measurable effects.
Water Quality	Analyzed in full.
Wetlands and Riparian Zones	Not analyzed; does not exist in the analysis area.
Wild and Scenic Rivers	Not analyzed; does not exist in the analysis area.
Wildlife	Analyzed in full.

3.2 Air Quality

3.2.1 Affected Environment

As directed by the federal Clean Air Act, the Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants in Title 40, CFR, Part 50. These standards were adopted by the EPA to protect the public health and welfare. The six pollutants of concern are carbon monoxide, nitrogen dioxide, ozone, PM₁₀, sulfur dioxide, and lead. States are required to adopt standards that are at least as stringent as NAAQS. While the GRIC is not a political subdivision of the State of Arizona nor of Pinal County, it is responsible for compliance with federal environmental laws and regulations. The GRIC’s Department of Environmental Quality Air Quality Program (AQP) is responsible for protecting the ambient air quality across the GRIC. The AQP consists of a regulatory and monitoring sections, and is funded through an Environmental Protection Agency grant under the Clean Air Act Section 105.

The project is not located within any nonattainment or maintenance areas for emission constituents.

3.2.2 Environmental Consequences

3.2.2.1 No Action

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impacts on air quality.

3.2.2.2 Proposed Action

If the Proposed Action is implemented, short-term emissions of criteria pollutants would occur during the construction phase. Construction equipment and personal vehicles would generate exhaust emissions, and vehicular travel and earthmoving activities would generate PM₁₀. The moving and handling of soil during construction would increase the potential for emissions of fugitive dust. However, impacts to air quality resulting from construction would be temporary and localized. Furthermore, the implementation of dust control measures would minimize

fugitive dust emissions from project construction. The Proposed Action would not result in the creation of any new, stationary air pollution sources. Therefore, impacts to air quality would be minor, temporary, and local.

3.2.2.3 Mitigation Measures

A-1 P-MIP or its contractors shall contact GRIC Department of Environmental Quality and complete a Dust Control Plan prior to initiating any earth moving operations.

3.3 Cultural Resources

3.3.1 Affected Environment

The GRIC Cultural Resource Management Program (CRMP) conducted a Class I cultural resources overview and a Class III cultural resources survey of the area of potential effects (APE) for the Proposed Action. CRMP identified four cultural resources within or immediately adjacent to the APE (Table 3-2) and six isolated occurrences.

TABLE 3-2. PREVIOUSLY DOCUMENTED CULTURAL RESOURCES

Site No.	Description	National Register Status
GR-799	Original occupation of 4-Mile Trading Post	Determined eligible, Criteria A and D
GR-913	Butterfield Overland Mail Road	Determined eligible, Criteria A and D
GR-1107	Hohokam artifact scatter	Recommended eligible, Criterion D
GR-1579	Historical alignment, SR 87	Determined eligible, Criteria A and D

3.3.2 Environmental Consequences

3.3.2.1 No Action

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impacts on cultural resources.

3.3.2.2 Proposed Action

GR-799 is the historical-period occupation of 4-Mile Trading Post which was previously determined eligible for inclusion in the National Register of Historic Places (NRHP) under Criteria A and D. The portions of GR-799 within the APE were previously mitigated and reported on in 2017. CRMP recommends that an archaeological monitor be present during all ground-disturbing activities at this site in order to identify and record any inadvertently discovered cultural remains, and to ensure there is no adverse effect to the site.

GR-913 is the Butterfield Overland Mail Road, used during A.D. 1858–1861, which was previously determined eligible for inclusion in the NRHP under Criteria A and D. CRMP recommends that the portion of GR-913 within the APE lacks integrity and does not contribute

to the site's overall eligibility. Therefore, the Proposed Action will not have an adverse effect on GR-913.

GR-1107 is a Hohokam artifact scatter dating to the Colonial and Classic periods. CRMP recommends this site eligible for inclusion in the NRHP under Criterion D. GR-1107 is situated outside the APE, on the eastern edge, and will be avoided by the undertaking. Therefore, the Proposed Action will not have an adverse effect on GR-1107.

GR-1579 is the historical alignment of SR-87, which was previously determined eligible for inclusion in the NRHP under Criteria A and D. CRMP recommends that the portion of GR-1579 within the APE lacks integrity and does not contribute to the site's overall eligibility. Therefore, the Proposed Action will not have an adverse effect on GR-1579.

The THPO concurred with Reclamation's determination of "no adverse effect" for the proposed undertaking, provided that a monitor is present for work occurring at site GR-799.

3.3.2.3 Mitigation Measures

CR-1 An archaeological monitor shall be present during all ground-disturbing activities at GR-799 in order to identify and record any inadvertently discovered cultural remains, and to ensure there is no adverse effect to the site.

3.4 Geology and Soils

3.4.1 Affected Environment

Soils within the project area are characterized primarily by the Casa Grande, Denure-Pahaka, and Redun-Shontik complexes (NRCS 2017). The Casa Grande complex consists of very deep, well drained, nearly level to gently sloping soils formed in old mixed alluvium. The Denure-Pahaka Association consists of very deep, somewhat excessively drained, nearly level to gently sloping gravelly moderately coarse over gravelly moderately fine textured soils on fan terraces. The Redun-Shontik complex is a well-drained, gently sloping soil derived from alluvial material.

3.4.2 Environmental Consequences

3.4.2.1 No Action

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impacts on geology and soils.

3.4.2.2 Proposed Action

Under the Proposed action, soils would be temporarily impacted by construction vehicles and related soil-disturbing activities. During construction activities, vegetative materials would be removed exposing soils to water and wind erosion. However, this exposure would be localized and occur within a limited construction footprint. No major, adverse, long-term impacts to soils would occur as a result of the project.

3.4.2.3 Mitigation Measures

None proposed.

3.5 Indian Trust Assets

3.5.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the U.S. Government for Indian tribes or individuals. Assets can be real property, physical assets, or intangible property rights. ITAs cannot be sold, leased, or otherwise encumbered without the approval of the U.S. Government. A trust relationship is established through a congressional act or Executive Order (EO), as well as by provisions identified in historic treaties. As trustee, the Department of the Interior (DOI) is legally obliged to fulfill treaty and statutory obligations and to manage, protect, and conserve Indian trust resources and lands in utmost good faith. Lands associated with a reservation, rancheria, or public domain allotments are examples of an ITA. Resources located within reservations, including timber, minerals, oil and gas, and others, are also considered trust assets. Treaty rights and water rights, as well as hunting and fishing rights, may also be ITAs.

3.5.2 Environmental Consequences

3.5.2.1 No Action

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impact on ITAs.

3.5.2.2 Proposed Action

Under the Proposed Action, improvements to the irrigation delivery facilities would provide GRIC members with better access to the GRIC's water rights during times of declared water shortage. Water supplies would be more reliable, thereby enhancing the availability of water used for agriculture.

3.5.2.3 Mitigation Measures

None proposed .

3.6 Vegetation

3.6.1 Affected Environment

The project area is located in the Lower Colorado River Valley Subdivision of Sonoran Desertscrub in Pinal County, Arizona (Brown 1994). The project area is rural in nature, consisting of undeveloped desert. The small community of Sacaton is located about two miles northwest of the project area. The project area traverses an alluvial fan of the Sacaton Mountains. Characteristic vegetation in the project area includes of saltbush (*Atriplex* sp.), creosotebush (*Larrea tridentata*), mesquite (*Prosopis velutina*), and desert grasses.

3.6.2 Environmental Consequences

3.6.2.1 No Action

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impacts on the existing vegetation community.

3.6.2.2 Proposed Action

The Proposed Action would occur largely on lands that have been previously disturbed by the construction and O&M of the existing pipeline and lift station, and disturbance associated with SR 87. Therefore, impacts to vegetation resulting from construction of the Proposed Action would be minor and localized.

3.6.2.3 Mitigation Measures

- V-1 Vegetation disturbances will be limited to the project area and all revegetation efforts will involve the use of native plant species to the extent possible.
- V-2 Procedures contained in the GRIC Native Plant Ordinance will be implemented for all plants occurring within the project area that are protected under this ordinance.

3.7 Water Resources**3.7.1 Affected Environment**

Surface water is derived from streamflow (Gila River), surface storage in San Carlos Reservoir, and groundwater and flows diverted from the Colorado River (CAP). Natural streamflow, stored water, and CAP water are delivered to the Reservation through the existing facilities of SCIP. Natural streamflow and surface storage are diverted from the Gila River at Ashurst-Hayden Dam, while CAP water is diverted from the Fannin-MacFarland Aqueduct into the Pima Lateral Feeder Canal which connects to SCIP facilities at the beginning of the Pima Lateral. Additional background related to water resources is available in the FPEIS for P-MIP.

3.7.2 Environmental Consequences**3.7.2.1 No Action**

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impacts on water resources.

3.7.2.2 Proposed Action

Under the Proposed Action, no adverse impacts to groundwater would occur. The project would result in a more reliable source of water for agricultural use during times of declared water shortage, thereby improving surface water access within the GRIC. Improvements to the irrigation facilities would reduce water losses, reduce O&M costs, reduce groundwater recharge from canal seepage, and improve conveyance efficiencies. The implementation of mitigation measures would minimize potential impacts to ground and surface water.

3.7.2.3 Mitigation Measures

- WR-1 P-MIP or its contractor will file a National Pollution Discharge Elimination System (NPDES; Section 402) Permit Notice of Intent with the EPA prior to construction.
- WR-2 In accordance with the NPDES Permit requirements, P-MIP or its contractor will prepare and implement a Stormwater Pollution Prevention Plan (SWPPP).

WR-3 P-MIP or its contractor shall comply with the terms and conditions of Nationwide Permit 27 and the associated 401 Water Quality Certification. Discharges of dredge or fill material into waters of the United States will be in accordance with the Clean Water Act.

3.8 Wildlife

3.8.1 Affected Environment

Desertscrub habitat within the project area is fragmented and provides marginal habitat for wildlife. Small mammals such as desert cottontails (*Sylvilagus auduboni*) and cactus mice (*Peromyscus eremicus*) may occur in the project area. Resident birds such as Gambel's quail (*Lophortyx gambelii*), mourning doves (*Zenaidura macroura*) and greater roadrunner (*Geococcyx californianus*) may use vegetation as nesting, roosting, or foraging sites.

3.8.2 Environmental Consequences

3.8.2.1 No Action

Under the No Action alternative, no new construction would occur. Therefore, this alternative would have no impacts on wildlife species or their habitats.

3.8.2.2 Proposed Action

Clearing of desert habitat for project construction would have an adverse impact on wildlife by reducing loss of food and cover resources, and breeding and nesting areas. However, due to the existing disturbed nature of the project area, and the limited construction footprint, these impacts would be minor. Temporary displacement of wildlife may occur as a result of noise and other human-caused disturbances associated with construction activities. Wildlife may become trapped in construction trenches, or injured by construction vehicles. The implementation of mitigation measures would reduce or minimize potential for injury, or entrapment of wildlife. Therefore, the Proposed Action would have minor, temporary impacts on wildlife.

3.8.2.3 Mitigation Measures

WD-1 P-MIP or its contractor shall not cause injury or death to birds or their nests, eggs, or young. If active nests (with eggs or young) are located within the project boundaries, P-MIP or its contractor shall contact the GRIC DEQ for direction prior to conducting project activities in the vicinity of the nest.

3.9 Cumulative Impacts

The CEQ regulations which implement NEPA require assessment of cumulative impacts in the decision making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Therefore, a cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions in the Proposed Action's region of influence.

Cumulative impacts were determined by combining the impacts of the alternatives with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects in the vicinity of the study area. The geographic scope for this analysis includes actions both, within and outside of the study area, depending on the resource. The temporal scope includes projects within a range of approximately ten year².

Table 3-3 lists cumulative projects that were identified in the study area based on readily available information. Current status of these cumulative projects may change and proposals for new projects may be developed. The table indicates the project name, location, status, description, and timeframe for each project.

TABLE 3-3. OTHER PROJECTS IN THE ANALYSIS AREA

Project Name	Location	Status	Description	Timeframe
Pima-Maricopa Irrigation Project PFEIS (1998)	Pinal County	Ongoing	This PFEIS evaluated construction of a common use irrigation system and rehabilitation of current facilities. The proposed action included 1) construction, rehabilitation, and betterment of canals, laterals, and wells; 2) land subjugation; 3) construction of protective channels, dikes, and levees; 4) on-farm development; and 5) riparian habitat.	Present
Blackwater Area P-MIP EA/Project (2003)	Pinal County	Operation and Maintenance	This project upgraded the existing unlined Pima and Southside canals with concrete lining, new siphons, a regulating reservoir, and support facilities in the Blackwater Area.	Past
Casa Blanca Canal Lining and Rehabilitation P-MIP EA/Project (2013)	Pinal County	Operation and Maintenance	This project lined and rehabilitated the Casa Blanca Canal, including modifying the canal prism, straightening segments of the alignment, and installing modernized measurement and control devices.	Present
SCIP Canal 1 Improvement Project	Pinal County	Ongoing	This project will rehabilitate approximately one mile of canal with either new piping or concrete lining, install a new outlet, and replace three existing turnout structures.	Present

Project Name	Location	Status	Description	Timeframe
SCIP Facilities, Phase 2 Rehabilitation, Reaches 1-3 Improvements EA	Pinal County	EA is being prepared.	This project will consolidate and rehabilitate 26 miles of canal with concrete lining.	Reasonably Foreseeable
Agriculture (e.g., farming, grazing, etc.)	Pinal County	Ongoing	Pinal County has approximately 1.2 million acres in agriculture use. The major crops in Pinal County are cotton, barley, wheat, and alfalfa hay. Livestock production also occurs in the County.	Past, Present, Reasonably Foreseeable
Rural Residential Development	Pinal County	Ongoing	In recent decades, urban expansion associated with the Town of Florence and the City of Coolidge has resulted in a gradual reduction in agricultural land and rangeland/desertscrub.	Past, Present, Reasonably Foreseeable
Sunzia Transmission Line Project	New Mexico, Pinal County, Arizona	Future	This planned transmission project consists of approximately 515 miles of two single-circuit 500 kV transmission lines. It is designed to connect and deliver electricity generated in Arizona and New Mexico to population centers in the Desert Southwest.	Reasonably Foreseeable
Solar Development	Pinal County	Ongoing	Solar facilities have been constructed and will continue to be constructed in Pinal County.	Past, Present, Reasonably Foreseeable
Central Arizona Project	Statewide	Operations and Maintenance	Existing 336-mile-long water delivery system including 14 pumping plants and 1 pump/generating plant, 10 siphons carrying water under riverbeds and large washes, 3 tunnels, more than 45 turnouts connecting the CAP aqueduct with customers' delivery systems, and a large storage reservoir.	Past, Present, Reasonably Foreseeable
ADOT/FHWA Road Construction /Improvements	Statewide	Ongoing		Past, Present, Reasonably Foreseeable

Cumulative construction-related air quality impacts could result during construction of the water delivery facilities, resulting in elevated levels of pollutants. Cumulative biological, cultural, and

geological and soils impacts from improvements to and construction of water delivery facilities could result in localized effects on desert habitat and cultural resources, but the severity and extent of such impacts would be minor given the limited scope of the Proposed Action. Cumulative adverse impacts to cultural resources would not occur as a result of the proposed project, with the implementation of avoidance measures.

4.0 Environmental Commitments

The following section is a comprehensive listing of the mitigation measures incorporated into this EA. These mitigation measures will be implemented as part of the proposed Project.

- A-1 P-MIP or its contractors shall contact GRIC Department of Environmental Quality and complete a Dust Control Plan prior to initiating any earth moving operations.
- CR-1 An archaeological monitor shall be present during all ground-disturbing activities at GR-799 in order to identify and record any inadvertently discovered cultural remains, and to ensure there is no adverse effect to the site.
- V-1 Vegetation disturbances will be limited to the project area and all revegetation efforts will involve the use of native plant species to the extent possible.
- V-2 Procedures contained in the GRIC Native Plant Ordinance will be implemented for all plants occurring within the project area that are protected under this ordinance.
- WR-1 P-MIP or its contractor will file a National Pollution Discharge Elimination System (NPDES; Section 402) Permit Notice of Intent with the EPA prior to construction.
- WR-2 In accordance with the NPDES Permit requirements, P-MIP or its contractor will prepare and implement a Stormwater Pollution Prevention Plan (SWPPP).
- WR-3 P-MIP or its contractor shall comply with the terms and conditions of Nationwide Permit 27 and the associated 401 Water Quality Certification. Discharges of dredge or fill material into waters of the United States will be in accordance with the Clean Water Act.
- WD-1 P-MIP or its contractor shall not cause injury or death to birds or their nests, eggs, or young. If active nests (with eggs or young) are located within the project boundaries, P-MIP or its contractor shall contact the GRIC DEQ for direction prior to conducting project activities in the vicinity of the nest.

5.0 Consultation and Coordination

Reclamation submitted information on the project proposal to the following entities during the development of the Draft NEPA document. The names of the individuals are retained in the administrative record.

Local Government Agencies

City of Coolidge
Hohokam Irrigation & Drainage District
Pinal County Board of Supervisors
Pinal County Public Works Department

State Agencies

Arizona Department of Environmental Quality
Arizona Department of Transportation
Arizona Department of Water Resources

Federal Agencies

Bureau of Indian Affairs Western Regional Office
National Resources Conservation Service
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

Conservation, Environmental, and Recreation Organizations

Arizona Riparian Council
Center for Biological Diversity
The Nature Conservancy
Sierra Club Grand Canyon Chapter
Sky Island Alliance

Other Organizations

Arizona Cattle Growers Association
Gila River Farms

6.0 List of Preparers

This EA was prepared by Johnida S. Dockens, Environmental Protection Specialist, Bureau of Reclamation, Phoenix Area Office, Glendale, Arizona.

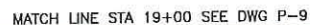
The following individuals contributed to the development or review of this EA:

Sean Heath:	Manager, Environmental Resources, Reclamation
Lauren Jelinek:	Archaeologist, Reclamation
David DeJong:	Project Director, P-MIP

7.0 References

- Brown, D. E. 1994. Biotic Communities of the Southwestern United States and Northwestern Mexico. University of Utah Press, Salt Lake City, Utah.
- Natural Resources Conservation Service (NRCS), United States Department of Agriculture. Web Soil Survey. Available online at <https://websoilsurvey.sc.egov.usda.gov/>. Accessed 18 May 2017.
- U.S. Bureau of Reclamation. 1997. Final Programmatic Environmental Impact Statement, Pima-Maricopa Irrigation Project. Prepared for U.S. Bureau of Reclamation, Arizona Project Office, Arizona.
- , 2003. Final Environmental Assessment, Blackwater Area of the Pima-Maricopa Irrigation Project. Prepared for U.S. Bureau of Reclamation, Phoenix Area Office, Arizona.

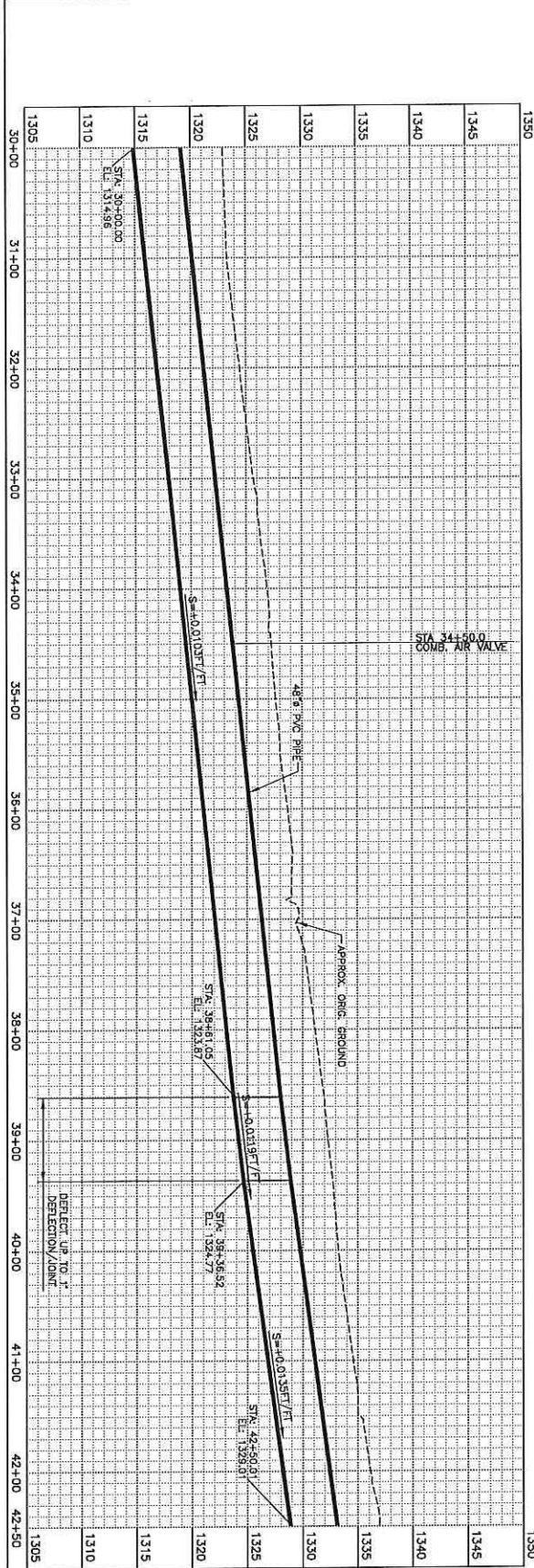
APPENDIX A. DESIGN DRAWINGS



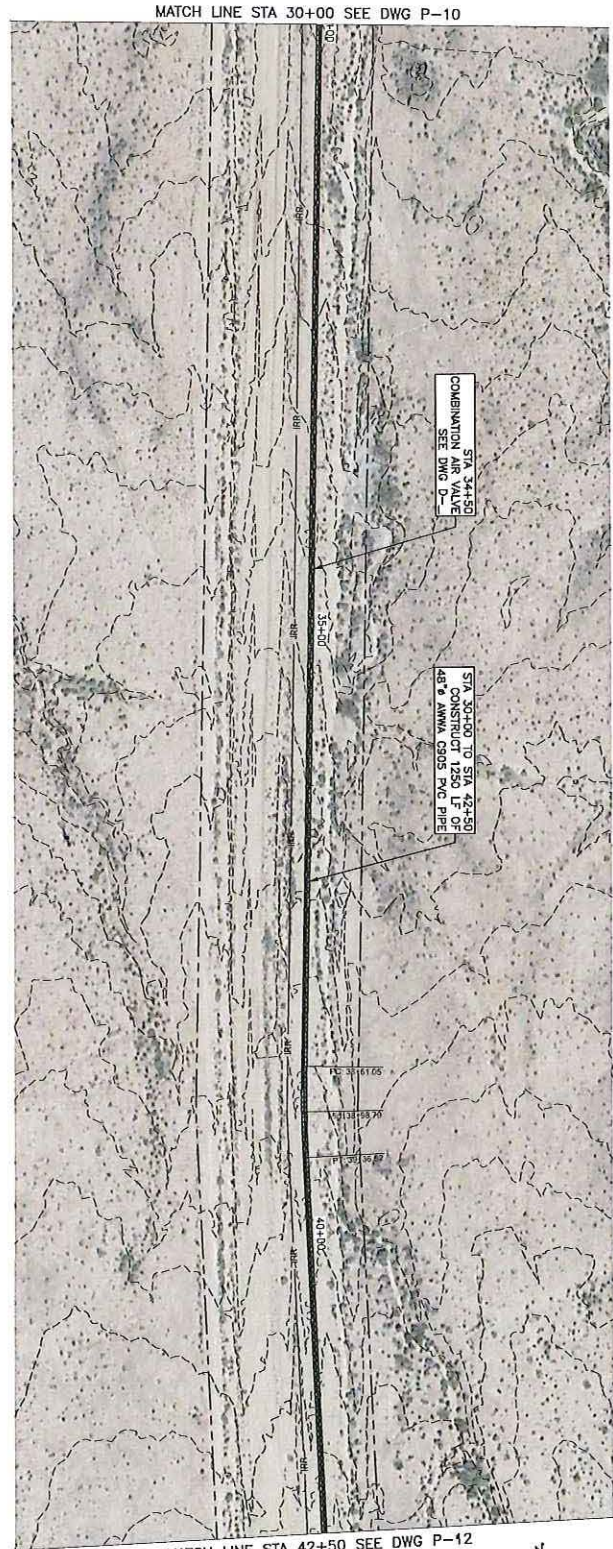
MATCH LINE STA 30+00 SEE DWG P-11



DRAWING NAME P-10	FOUR MILE POST PUMPSTATION AND LATERAL B.2.3 IMPROVEMENTS	 <p>PIMA MARICOPA IRRIGATION PROJECT</p> <p>P.O. BOX C 190 SOUTH "A" STREET SAVANNAH, AZ 85147 (520) 552-6790 (520) 552-6791 FAX</p>	PREPARED BY:	Issue Certification	Job No. 161300604			
	FOUR MILEPOST EXPANSION PIPELINE PLAN AND PROFILE STA 19+00 TO STA 30+00		 6281 South 48th Street Phoenix AZ www.stantec.com	REVIEW COPY NOT FOR CONSTRUCTION OR RECORDING	Designed DES Drawn DES Checked _____ Reviewed _____ Approved _____ Reg. No. 1 Date 5/1/17	Rev	Date	Description



- NOTES:
- 1) HORIZONTAL LOCATIONS OF KNOWN UTILITIES ARE SHOWN BASED ON BEST AVAILABLE INFORMATION. VERTICAL ELEVATIONS TO BE DETERMINED. FINAL DESIGN SHALL VERIFY.
 - 2) ALIGNMENT BOUNDARIES ARE NOT COORDINATE CORRECT AND ARE SUBJECT TO REVISION. P-MIP WILL PROVIDE COORDINATE CORRECT ALIGNMENT BREAKDOWNS, VIA FINAL PROJECT STRIP MAPS.



SCALE OF FEET
0 50 100

FOUR MILE POST PUMPSTATION
AND LATERAL 8.2.3 IMPROVEMENTS
FOUR MILEPOST EXPANSION PIPELINE
PLAN AND PROFILE
STA 30+00 TO STA 42+50

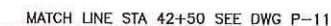
**PIMA
MARICOPA
IRRIGATION
PROJECT**
P.O. BOX
192 SOUTH "A" STREET
SAGUON, AZ 85147
(520) 582-8700
(520) 582-8751 FAX



PREPARED BY:
Stantec
8211 South 4th Street
Phoenix, AZ
www.stantec.com

Issue Certification
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Job No. 181300604	Rev	Date	Description
Designed			
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Checked			
Reviewed			
Approved			
Reg. No. 1			
Plot Date 5/1/2017			



MATCH LINE STA 55+00 SEE DWG P-13



A horizontal scale bar labeled "SCALE OF FEET". It has markings at 50, 0, 50, and 100. There are tick marks every 10 units, with labels at 50, 0, 50, and 100.

FOUR MILE POST PUMPSTATION
AND LATERAL 8.2.3 IMPROVEMENTS

FOUR MILEPOST EXPANSION PIPELINE
PLAN AND PROFILE
STA 42+50 TO STA 55+00

**PIMA
MARICOPA
IRRIGATION
PROJECT**
P.O. BOX C
192 SOUTH "A" STREET
SACATON, AZ 85147
(520) 562-6700
(520) 562-6791 FAX



PREPARED BY:

 **Sta**

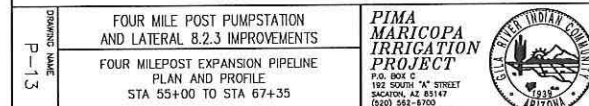
8211 South 45th S
Phoenix AZ
www.stantonec.com

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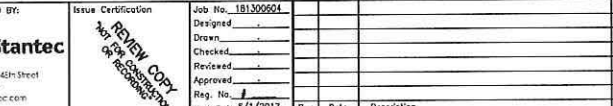
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APPENDIX B. SCOPING LETTER



United States Department of the Interior

BUREAU OF RECLAMATION

Lower Colorado Region
Phoenix Area Office
6150 West Thunderbird Road
Glendale, AZ 85306-4001

IN REPLY REFER TO:
PXAO-1500
ENV-6.00

APR 26 2017

MEMORANDUM

To: All Interested Persons, Organizations, and Agencies

From: Leslie A. Meyers
Area Manager

Subject: Notice of Public Scoping for Preparation of an Environmental Assessment for the
Proposed 4-Mile Post Lift Station and Pipeline Improvements Project
(Action by 20 Days From the Date of This Memorandum)

The Bureau of Reclamation is preparing an Environmental Assessment (EA) analyzing the potential impacts from the Pima-Maricopa Irrigation Project (P-MIP) Proposed 4-Mile Post Lift Station and Pipeline Improvements Project (Project). The Project is located west of Coolidge in Pinal County, Arizona, on the Gila River Indian Reservation in portions of Township 4 South, Range 6 East, Sections 24 and 25, and Township 4 South, Range 7 East, Section 19 (Gila and Salt River Baseline and Meridian; Figure 1). The primary purpose of the proposed Project is to increase capacity as part of the overall rehabilitation, betterment, and new construction related to the irrigation distribution system within the San Carlos Irrigation Project. This increased capacity is needed to convey a pooled water supply that includes Gila River (Globe Equity 59) surface and ground water from the Pima Lateral up-gradient to the Southside Canal to be used should a water shortage be declared on the Colorado River. Reclamation is inviting the public to provide comments and concerns on the Project that should be integrated in the EA.

BACKGROUND

The P-MIP was established by the Gila River Indian Community (Community) in 1995 to design and construct a water conveyance system to deliver irrigation water to up to 146,330 acres on the Gila River Indian Reservation. P-MIP is a tribal program funded through the United States Bureau of Reclamation under the authority of the Master Repayment Contract between the Community and the United States of America made pursuant to the Reclamation Act of June 17, 1902 (32 Stat. 388), and any acts amending or supplementing it, including the Reclamation Project Act of August 4, 1939 (53 Stat. 1187), the Colorado River Basin Project Act of September 30, 1968 (82 Stat. 885, 43 U.S.C. § 1501), and the Leavitt Act of July 1, 1932 (47 Stat. 564). In addition, the P-MIP is funded through Title II of the Arizona Water Settlements Act of 2004, Public Law 108-451, to rehabilitate and construct the new San Carlos Irrigation Project delivery system.

The original conveyance facilities were begun by the Bureau of Indian Affairs Irrigation Rehabilitation in the mid-1990s. In 2001, the P-MIP inherited these facilities and in 2007 completed the original 4-Mile Post lift station and pipeline. The original facilities included a 30-inch polyvinyl chloride (PVC) pipeline connecting the Southside Canal up-gradient with the Pima Lateral 5,850 feet down-gradient. The existing pipeline easement is 100 feet wide and currently does not adequately encompass existing access routes.

PROJECT DESCRIPTION

P-MIP is proposing to expand the existing pipeline easement from 100 feet to 150 feet, and to construct a new pipeline and lift station. The new lift station would be adjacent to the existing lift station and would lift water about 75 vertical feet to the Southside Canal; reverse flows would gravity feed down the pipeline into the Pima Lateral. The existing lift station would remain operational. Project features include the following:

- New lift station with two 30-cubic feet per second (cfs) vertical-turbine pumps, variable frequency drives, supervisory control and data acquisition (SCADA) control systems, ancillary electrical equipment, and surge tank, all within a walled compound.
- 5,770 feet of new 54-inch PVC pipeline and 80 feet of 60-inch rubber gasketed concrete cylinder pipeline.
- Pipeline delivery system consisting of a single concrete inlet structure on the Pima Lateral and a single concrete outlet structure on the Southside Canal.
- Stubbed Y on the 54-inch pipeline just south of the new lift station for a future outlet to the Pima Lateral.
- Two 54-inch slide gates, various pumps, motors, and wet well.
- Electrical and other site improvements.
- New 20-foot-wide access road adjacent to the new pipeline for operations and maintenance activities.

There would be a single jack and bore operation under State Route 87 for construction of the pipeline, which would require coordination with Arizona Department of Transportation (ADOT) and an ADOT encroachment permit. No temporary construction easements would be required for the proposed Project. Construction is anticipated to begin in July 2017, and be completed no later than March 1, 2018.

The EA is anticipated to consider the following resource areas in detail: biological resources, cultural resources, water resources, soils, and hazardous materials. Other resources may be evaluated in detail if they are identified through this scoping process.

Reclamation is interested in receiving your input regarding potential impacts of the proposed action and/or other concerns and issues that should be addressed in the EA. To be most helpful, comments should be as specific as possible and sent to Reclamation within 20 days of the date stamp on this notification to the attention of Ms. Johnida Dockens, or email at jdockens@usbr.gov. Before including your name, address, phone number, email address, or other personal identifying information in your comment, please be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you may request that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

If you have any questions, please contact Ms. Dockens at 623-773-6256.

Thank you for your interest in this project.

Attachment

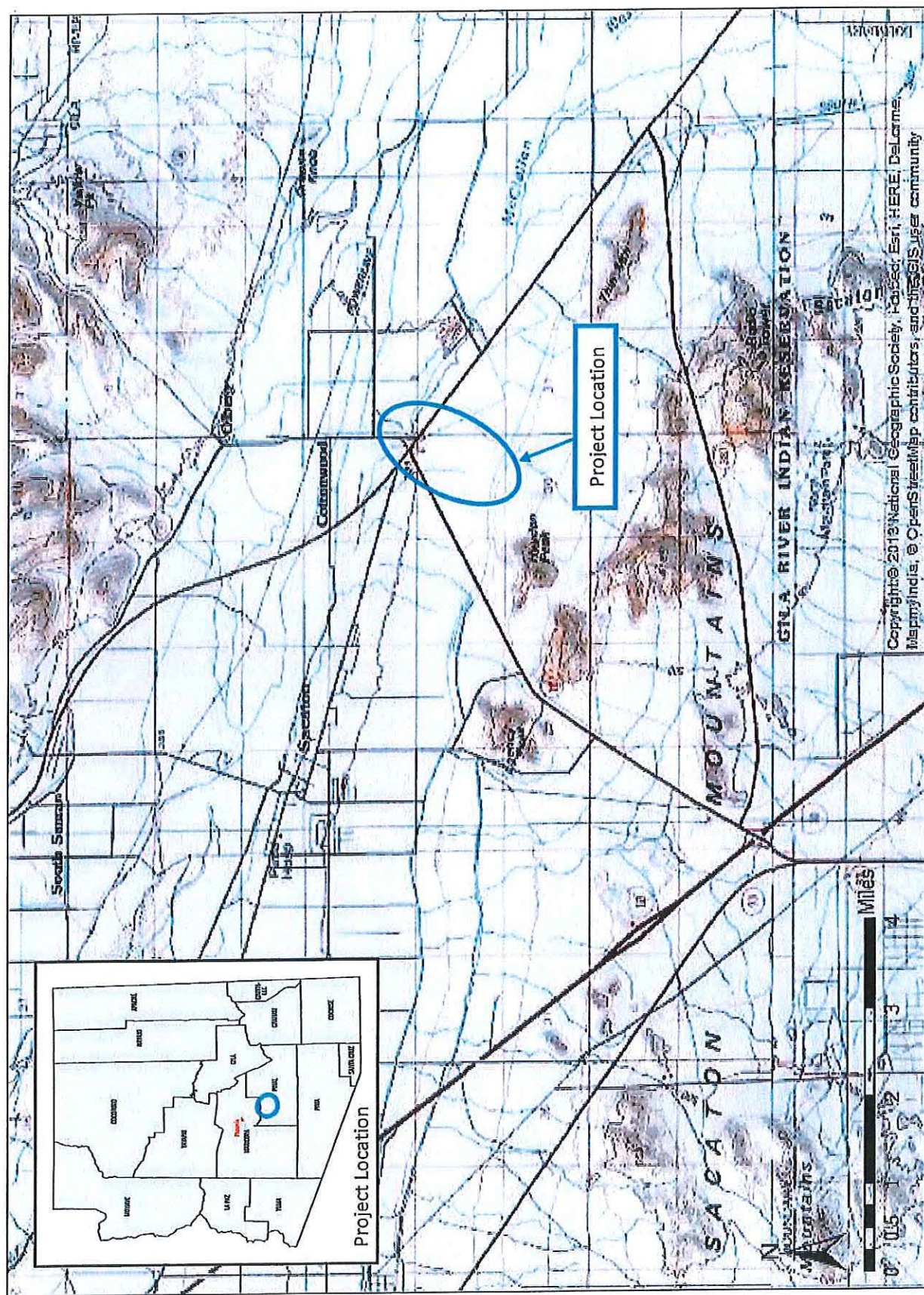


Figure 1. Project Location Map

APPENDIX C. CULTURAL CONSULTATION LETTER



GILA RIVER INDIAN COMMUNITY

POST OFFICE BOX 2193, SACATON, AZ 85147

TRIBAL HISTORIC PRESERVATION OFFICE

(520) 562-7162
Fax: (520) 562-5083

June 19, 2017

Sean M. Heath, Chief
Environmental Resource Management Division
Bureau of Reclamation
Lower Colorado Region
Phoenix Area Office
6150 West Thunderbird Road
Glendale, Arizona 85306-4001

RE: Section 106 Consultation on Eligibility: Supplemental Cultural Resources Survey of the Four Mile Post Lift Station and an Irrigation Pipeline Connecting the Pima Lateral and Southside Canals, District 2, Pima-Maricopa Irrigation Project (P-MIP), Gila River Indian Community, Pinal County, Arizona, Report

Dear Chief Heath,

The Gila River Indian Community Tribal Historic Preservation Office (GRIC-THPO) has received your consultation letter dated May 19, 2017. The Bureau of Reclamation (BOR) has reviewed Class I and Class III archaeological survey reports for a P-MIP undertaking to construct a new lift station at the Four Mile Post and to improve an existing irrigation pipeline that connects the Pima Lateral Canal to the Southside Canal.

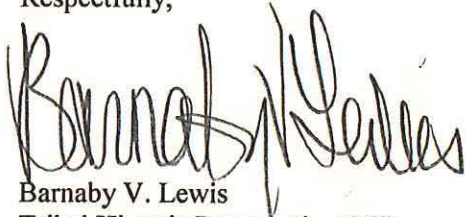
The GRIC Cultural Resource Management Program (CRMP) identified four archaeological sites within or immediately adjacent to the proposed project area: 1) GR-799 is identified as the historic Four Mile Trading Post. The site is considered a Register eligible property and the BOR recommends archaeological monitoring during ground disturbing activities; 2) GR-913 is identified as the Butterfield Overland Mail Road which is considered to be a Register eligible property. The road will not be affected by this undertaking; 3) GR-1107 is identified as a Hohokam artifact scatter which is considered a Register eligible property. The site is outside the project area and will not be affected by this undertaking; and 4) GR-1579 is identified as State Route 87. The road is considered a Register eligible property and will not be affected by this undertaking. The GRIC-CRMP has recommended a finding of no adverse effect. The BOR has concurred with this finding of effect for the undertaking.

The GRIC-THPO concurs a finding of no adverse effect for this undertaking and with the recommendation for archaeological monitoring at site GR-799. The GRIC-THPO also concurs with the site Register eligibility determinations. The GRIC-THPO will continue to participate in the consultation process. The project occurs within the ancestral lands of the Four Southern

Tribes (Gila River Indian Community; Salt River Pima-Maricopa Indian Community; Ak-Chin Indian Community and the Tohono O'Odham Nation).

Thank you for consulting with the GRIC-THPO on this project. If you have any questions please do not hesitate to contact me or Archaeological Compliance Specialist Larry Benallie, Jr. at 520-562-7162.

Respectfully,

A handwritten signature in dark ink, appearing to read "Barnaby V. Lewis". The signature is fluid and cursive, with the first name being the most prominent.

Barnaby V. Lewis
Tribal Historic Preservation Officer
Gila River Indian Community