

# RECLAMATION

*Managing Water in the West*

## **Final Environmental Assessment**

### **Exchange of Central Arizona Project Water between the Gila River Indian Community and Maricopa-Stanfield Irrigation and Drainage District, Hohokam Irrigation and Drainage District, Central Arizona Irrigation and Drainage District, New Magma Irrigation and Drainage District and the Salt River Valley Water User's Association**



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

May 2019

## **Mission Statements**

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

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.

## Acronyms and Abbreviations

ADWR	Arizona Department of Water Resources
afa	acre feet annually
AMA	Active Management Areas
BIA	Bureau of Indian Affairs
CAIDD	Central Arizona Irrigation and Drainage District
CAP	Central Arizona Project
CAWCD	Central Arizona Water Conservation District
CFR	Code of Federal Regulations
Community	Gila River Indian Community
CWA	Clean Water Act
DOI	Department of the Interior
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
GSF	Groundwater Savings Facility
HIDD	Hohokam Irrigation and Drainage District
LTSC	Long Term Storage Credit
MSIDD	Maricopa-Stanfield Irrigation and Drainage District
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMIDD	New Magma Irrigation and Drainage District
PL	Public Law
Reclamation	Bureau of Reclamation
SRVWUA	Salt River Valley Water User's Association
USACE	U.S. Army Corps of Engineers
USC	U.S. Code

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## **1.0 Introduction and Background**

Title II of Public Law 108-451 (118 Stat. 3499), the Gila River Indian Community Water Rights Settlement Act of 2004 (Act), was enacted on December 10, 2004. The Act authorized settlement of the water rights claims of the Gila River Indian Community (Community), and in section 203 authorized, ratified and confirmed the Gila River Indian Community Water Rights Settlement Agreement (Agreement) dated December 21, 2005 and any amendments necessary to the Agreement to make it consistent with the Act. The Act, in section 205(a)(2)(A), also directed the Secretary of the Interior (Secretary) to amend the Community's Central Arizona Project (CAP) water delivery contract to authorize the Community, with the approval of the Secretary, to enter into leases, options to lease, exchanges, or options to exchange of CAP water within Maricopa, Pinal, Pima, La Paz, Yavapai, Gila, Graham, Greenlee, Santa Cruz, or Coconino Counties for a term not to exceed 100 years.

The Community's CAP water delivery contract, dated May 15, 2006, provides at subarticle 5.3.6 that the Community may, with the approval of the Secretary, enter into leases, options to lease, exchanges, or options to exchange their CAP water. The Community's storage of water at Groundwater Savings Facilities (GSFs), including Maricopa-Stanfield Irrigation and Drainage District, Hohokam Irrigation and Drainage District, Central Arizona Irrigation and Drainage District and/or Salt River Valley Water Users Association (MSIDD, HIDD, CAIDD, NMIDD, and/or SRVWUA), are considered exchanges and fall under this provision. Thus, the United States can approve an exchange agreement, in conformance with the Act, the Agreement, and the Community's CAP water delivery contract.

Each exchange agreement for the Community's CAP water requires, among other conditions, analysis of the potential environmental impacts as a result of any proposed exchanges of CAP water by the Community. As a part of the exchange, an annual scheduling agreement would be required to renew the exchange agreement between the two parties. This document analyzes the impacts of an initial exchange agreement and all subsequent annual agreements, should they be renewed, with the GSFs named above. The result will reduce the time and effort required to approve subsequent agreements, as long as there are no changes to environmental conditions that would have an impact on environmental resources. Exchange agreement renewals will be evaluated prior to execution for any changes in environmental conditions, and if required, additional environmental compliance will be completed.

### **1.1 Purpose and Need for the Proposed Action**

The purpose of the Proposed Action is to store water at any one or a combination of the following Arizona Department of Water Resources (ADWR) permitted GSFs: MSIDD, HIDD, CAIDD, NMIDD and/or SRVWU. These GSFs seek to use the Community's CAP water in lieu of pumping groundwater and the Community desires to obtain Long-Term Storage Credits

(LTSCs). The project will also help reduce groundwater pumping in the Phoenix/Pinal Active Management Areas (AMAs).

## 1.2 Description of the Proposed Action and Alternatives

In accordance with the National Environmental Policy Act of 1969, (PL 91-190) the Bureau of Reclamation has prepared an Environmental Assessment to analyze the potential environmental impacts as a result of proposed exchanges between the Community and MSIDD, HIDD, CAIDD, NMIDD and SRVWUA for the delivery, storage, and banking at GSFs owned and operated by MSIDD, HIDD, CAIDD, NMIDD and SRVWUA.

The Community could choose delivery amounts up to 25,000 acre-feet annually (afa) of CAP water for each delivery agreement. MSIDD, HIDD, CAIDD, NMIDD and SRVWUA would use a portion of the Community's CAP allocation in lieu of pumping groundwater for their irrigation customers. Pursuant to Arizona law, the Community would receive pumping credits for the groundwater "saved" (not pumped) as a result of the agreement. Those credits can then be sold or "recovered" later. The time period covered under this analysis lasts until environmental conditions or contractual language change such that subsequent NEPA analysis would be required.

MSIDD, HIDD, CAIDD, NMIDD and SRVWUA have been issued Facility Permits from the ADWR that authorize storage of CAP water at their GSFs. The Community has an existing CAP allocation, and a permit for storage of its water at the MSIDD, HIDD, CAIDD, NMIDD and SRVWUA GSFs. The point of delivery would use existing MSIDD, HIDD, CAIDD, NMIDD and SRVWUA turnouts, no new infrastructure would be required for the exchange to occur.

MSIDD, HIDD, CAIDD, NMIDD and SRVWUA desire to use the Community's CAP water in lieu of pumping groundwater, and the Community desires to deliver its CAP water to the GSFs to obtain LTSCs. In accordance with the provisions of the Arizona Water Settlements Act (Act

(PL 108-451), the United States (US) considers the agreement to be an exchange of the Community's CAP water and requires the approval of the Secretary of Interior (Secretary) to comply with the Act.

As part of the exchange, an annual scheduling agreement would be required between the Community and MSIDD, HIDD, CAIDD, NMIDD and/or SRVWUA. However, for each year during the term of the exchange agreement MSIDD, HIDD, CAIDD, NMIDD and SRVWUA would not be obligated to accept and the Community would not be obligated to deliver any of the Community's CAP water unless the agreement is mutual as to the quantities. The annual scheduling agreement would designate quantities for water delivery on a monthly basis and would be submitted to the Central Arizona Water Conservation District, as operator of the CAP, to schedule deliveries of water.

### **1.3 No Action Alternative**

Under the no action alternative, there would be no impact to environmental resources since no exchange agreement would be implemented, but the Community would not earn LTSCs at SRVWUA's GSF. The Community would continue to attempt to deliver and store portions of their CAP entitlement at another GSF or Underground Storage Facilities or pursue leasing agreements with municipalities or other Native American communities. Long-term viability of groundwater resources could be compromised due to the fact that anticipated future urban growth will likely continue to displace agricultural land, shifting the emphasis from irrigated agriculture to irrigated urban landscapes. As future supplies of excess CAP water will become smaller, an increase in groundwater pumping would occur to irrigate remaining fields and landscapes. The ability to offset pumping of groundwater resources would be lessened greatly.

### **1.4 Description of the Project Area**

The project is located in Maricopa and Pinal counties. NMIDD's existing water service area encompasses 27,410 acres in the southeastern part of the Phoenix Active Management Area between Queen Creek and the Gila River. CAP water is delivered from a turnout on the Salt-Gila reach of the CAP Aqueduct and conveyed to agricultural fields through existing irrigation infrastructure. Figure 1 is a map of the NMIDD service area and turnouts. No new infrastructure or turnouts would be required as a result of the proposed exchange.

MSIDDs existing water service area encompasses approximately 59,000 acres in Pinal County. CAP water is delivered from the CAP by an irrigation system that involves over 200 miles of distribution facilities including concrete-lined canals, pipelines, pumping plants and related works. Figure 2 is a map of the MSIDD service area and turnouts. No new infrastructure or turnouts would be required as a result of the proposed exchange.

HIDD's existing water service area encompasses 29,600 acres southwest of Coolidge, Arizona in Pinal County, of which 28,000 acres are irrigable. HIDD was formed in 1972 under Title 48 of the Revised Arizona State Statutes. The land within HIDD is currently irrigated with CAP water and supplemented with private groundwater wells. The District's main canal is approximately 15 miles in length, and the system has approximately 60 miles of open, concrete lined laterals and pressure pipelines. Figure 3 is a map of the HIDD service area and turnouts. No new infrastructure or turnouts would be required as a result of the proposed exchange.

The CAIDD was formed in 1996 and is located in and around Eloy, Arizona. CAIDD is composed of 87,586 acres. CAIDD's water is supplied by district operational wells and the CAP. In 1990, CAIDD took over operation and maintenance of privately-owned wells by 40-year leases. CAIDD has approximately 223 miles of lined canals with 246 turnouts. Out of the district's 27 main and lateral canals; 12 are fully automated. Figure 4 is a map of the CAIDD service area and turnouts. No new infrastructure or turnouts would be required as a result of the proposed exchange.

The SRVWUA delivers nearly 1 million acre-feet of water to a 240,000-acre service area (which is a permitted GSF) in metropolitan Phoenix. An extensive water delivery system is maintained and operated by the Association, including reservoirs, wells, canals, and irrigation laterals. The reservoir system feeds an extensive water delivery network comprising 1,265 miles of canals, laterals and smaller channels. This delivery network carries water to municipalities as well as agricultural and urban irrigators. Figure 5 is a map of the SRVWUA service area. No new infrastructure or turnouts would be required as a result of the proposed exchange.

## **1.5 Public Involvement**

Reclamation solicited input from the public on the proposed project to assist in identifying key issues and defining the scope of the project and environmental analysis. Reclamation conducted scoping via mail and internet publication; project information was sent to the agencies and entities listed in Section 3.0. A 30-day scoping period was initiated June 21, 2018 and closed on July 23, 2018. No comments were received. A Notice of Availability for the draft EA was issued on April 4, 2019, with comments due on May 4, 2019. No comments were received.

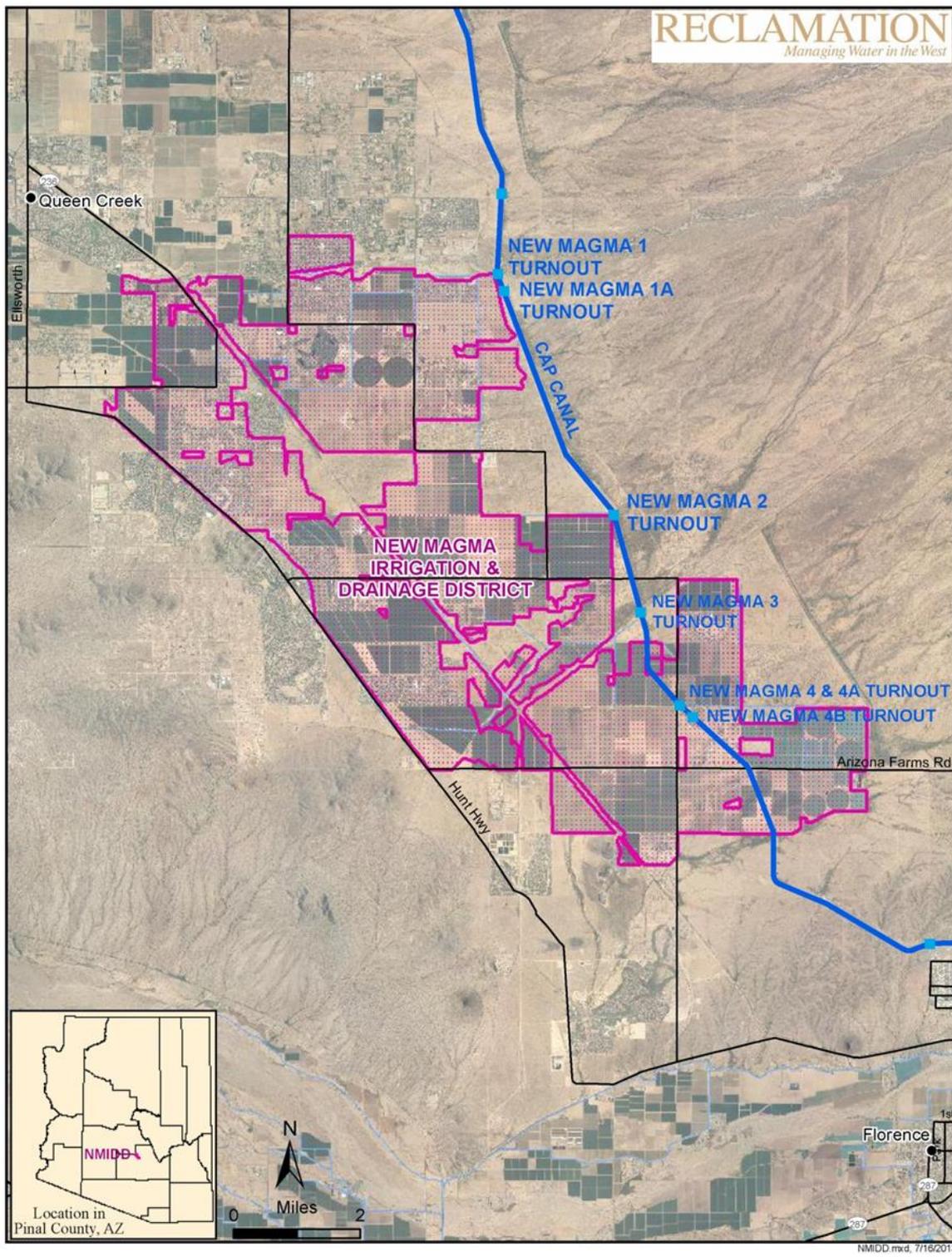


Figure 1: Map of NMIDD service area

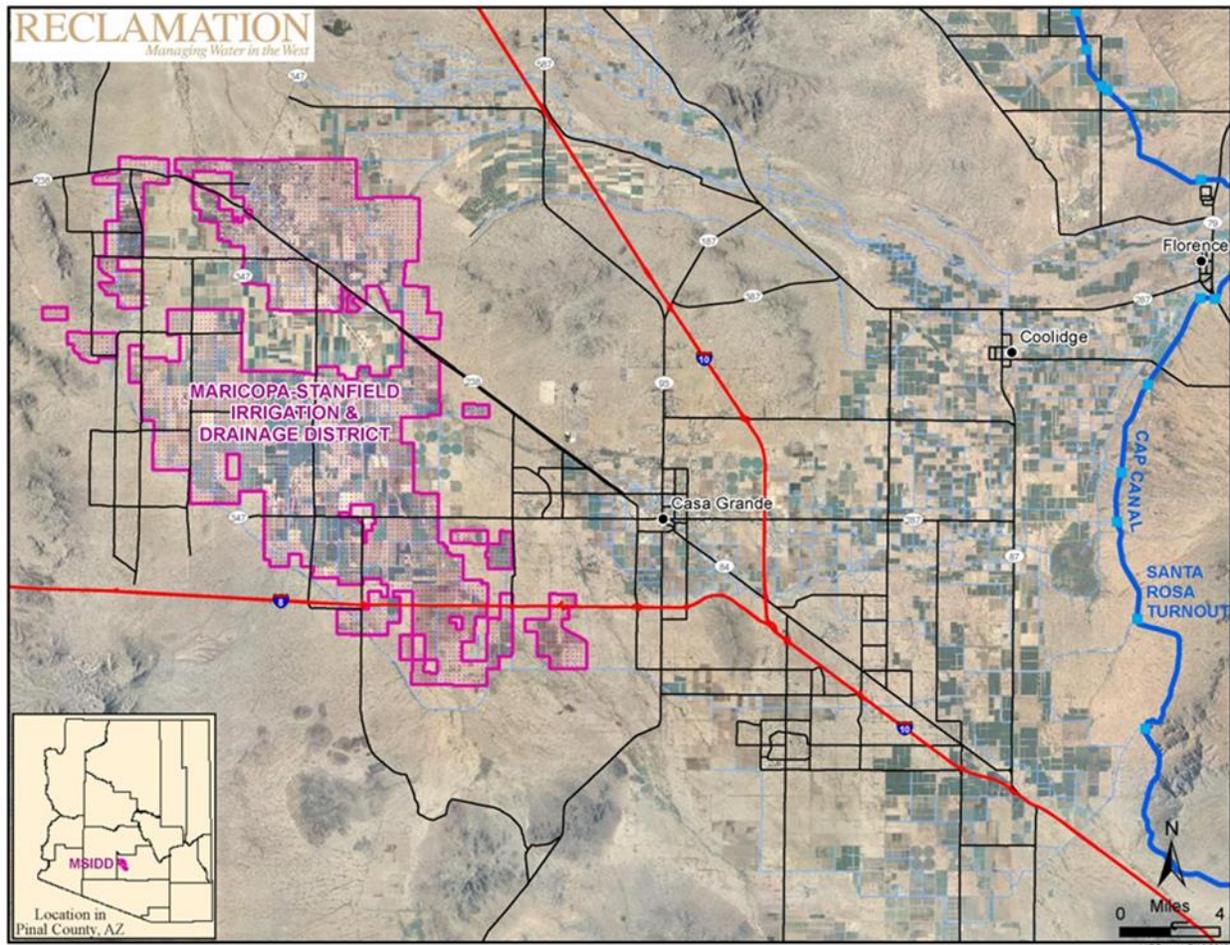


Figure 2: Map of MSIDD service area

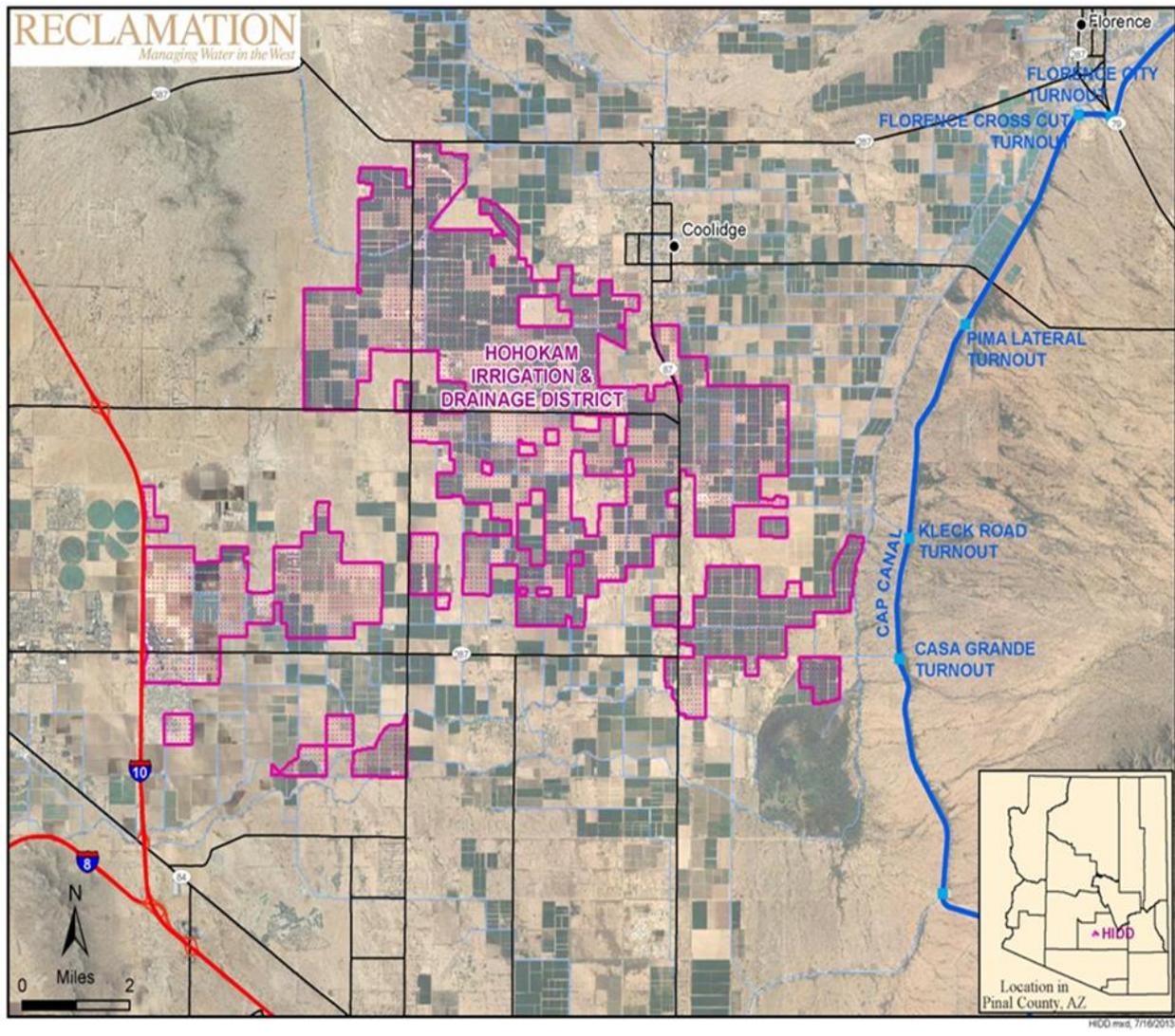


Figure 3: Map of HIDD service area

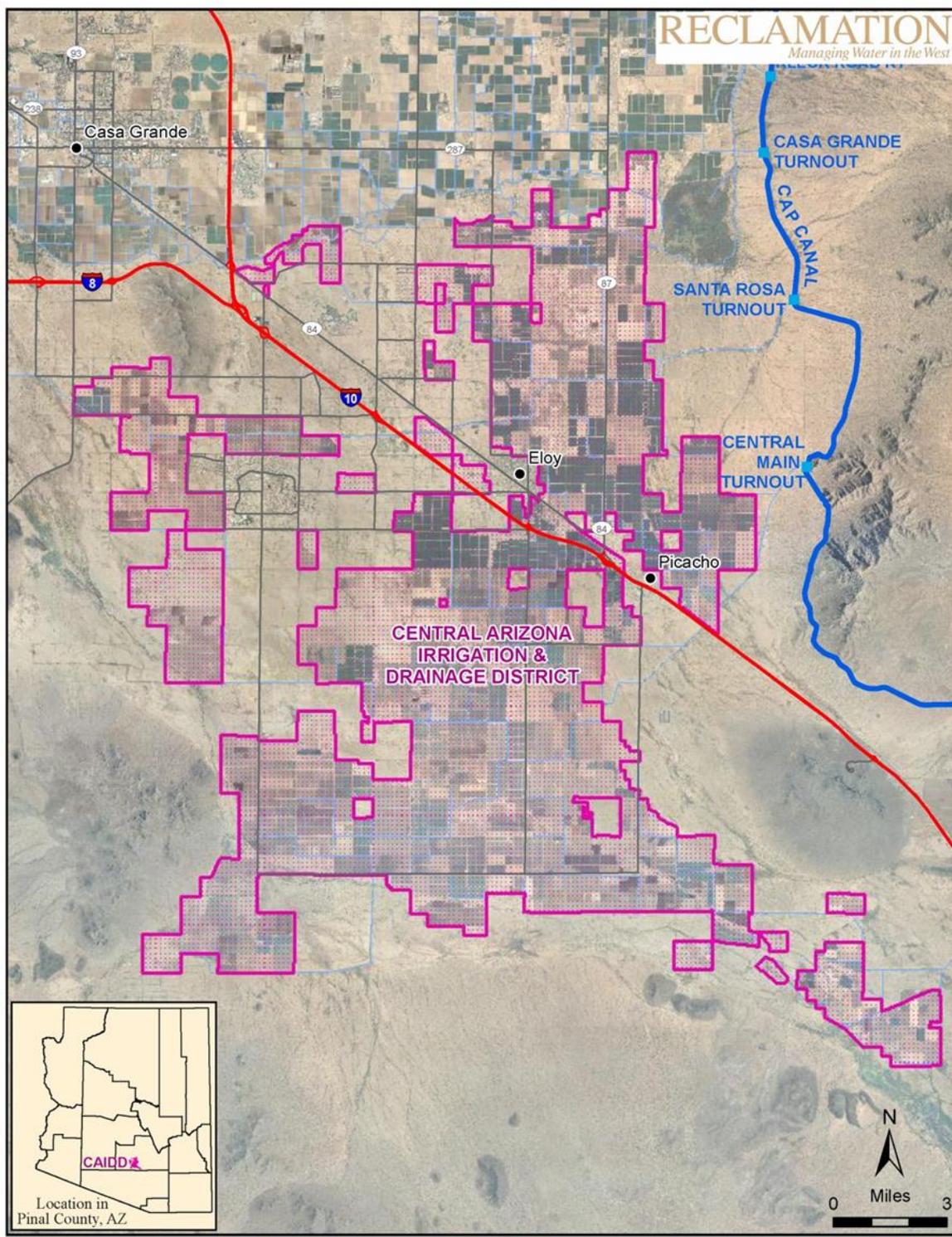
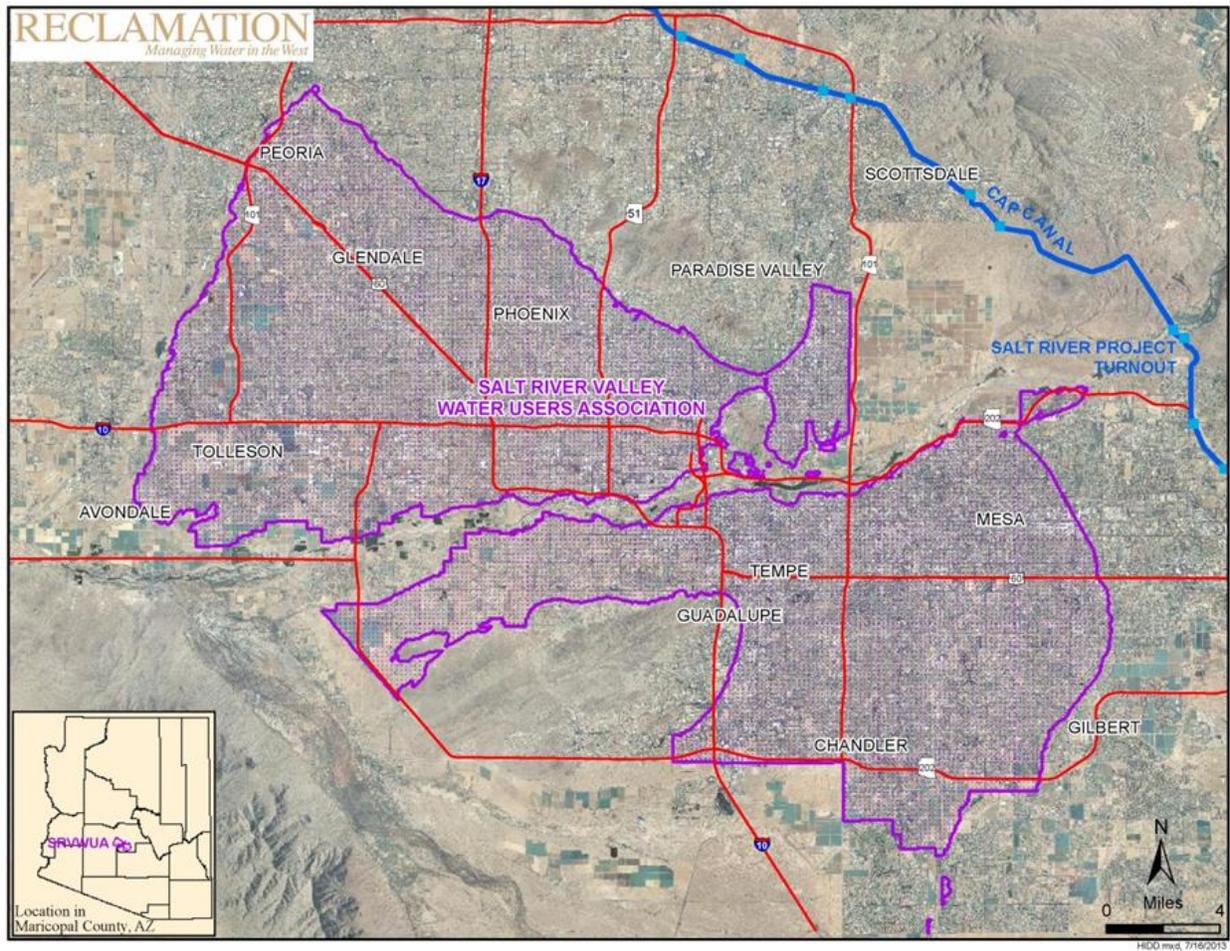


Figure 4: Map of CAIDD service area



**Figure 5: Map of SRVWUA service area**

## 2.0 Affected Environment and Environmental Consequences

The potential environmental effects associated with implementation of the proposed action are examined in this section. Table 1 outlines resource areas that are not present in the Proposed Action Area, or that are present but not affected, with a description of the rationale.

**Table 1: Resource Areas Not Retained for Detailed Analysis**

<b>Resource Area/Element</b>	<b>Rationale</b>
<b>Soil Resources and Geology</b>	The proposed action will cause no impacts to geology or soil resources.
<b>Air Quality</b>	The proposed action will result in no change in carbon monoxide (CO) or particulate matter with a diameter of less than 10 microns (PM <sub>10</sub> ) levels in the project area.
<b>Biological Resources</b>	The proposed action will not cause changes to existing vegetation or impacts to local wildlife, or federally listed species in the project area.
<b>Cultural Resources</b>	The proposed action will not cause impacts to cultural resources.
<b>Land Use and Transportation</b>	The proposed action will not cause impacts to land ownership or land use.
<b>Socioeconomic Resources and Environmental Justice</b>	The proposed action will result in no change to existing social or economic conditions or employment opportunities for the GRIC.
<b>Hazardous Materials</b>	The proposed action presents no hazardous materials concerns.
<b>Floodplain Management and Wetlands</b>	The proposed actions would not result in the modification of a floodplain or wetland.

## 2.1 Indian Trust Assets

Indian trust assets are legal interests in property held in trust by the United States for Native American Tribes or individuals. The Community's rights to CAP water are a trust asset per Section 204(a)(2) of the Act. The proposed agreement would provide the Community a means for accruing LTSCs that can be recovered or reassigned in accordance with Arizona law. There would be no adverse effects to trust assets of the Community or any other tribe.

### 2.1.1 No Action

Under the no action alternative, baseline conditions would continue and no impacts to ITAs would occur. The Community would continue to attempt to deliver and store portions of their

CAP entitlement at another GSF or Underground Storage Facilities or pursue leasing agreements with municipalities or other Native American communities.

### **2.1.2 Proposed Action**

The proposed action would not result in any new construction or change in land use. CAP water would be delivered through existing infrastructure to CAWCD-eligible GSF's within MSIDD's, HIDD's, CAIDD's, NMIDD's and/or SRVWUA's service area. The exchange would not cause additional growth and development beyond what was described in the no action alternative. The proposed action will not adversely affect Indian Trust Assets. Other environmental issues for which Reclamation has made a no effect determination are listed in Table 1.

## **2.2 Water Resources**

The water resources analysis considers the service areas of MSIDD, HIDD, CAIDD, NMIDD and SRVWUA (Figures 1-5).

### **2.2.1 No Action**

Under the no action alternative, there would be no impact to environmental resources from the proposed action since no exchange agreement would be implemented. The Community would continue to attempt to deliver and store portions of their CAP entitlement at another GSF or Underground Storage Facilities or pursue leasing agreements with municipalities or other Native American communities. However, future urban growth will likely displace a portion of the remaining agricultural lands in MSIDD's, HIDD's, CAIDD's, NMIDD's and/or SRVWUA's service areas, shifting the emphasis from agricultural to urban landscape. As the availability of excess CAP water reduces over time, MSIDD, HIDD, CAIDD and NMIDD (and SRVWUA, to a lesser extent) may become more reliant on other water supplies to meet their water supply demand. Further, the continued pumping of groundwater would deplete an already dwindling resource. Groundwater depletion is a serious issue with numerous adverse effects including, but not limited to, subsidence and earth fissuring, aquifer compaction leading to decreased aquifer storage space, and economic impacts caused by increases in pumping costs and deepening wells. Decreased aquifer storage space also could lead to the loss of available groundwater that is suitable for agriculture, economic development, and human consumption. Therefore, the no action alternative could result in adverse effects to the natural and human environment.

### **2.2.2 Proposed Action**

The proposed action would not result in any new construction or change in land use. CAP water would be delivered through existing infrastructure to CAWCD-eligible GSFs within MSIDD's, HIDD's, CAIDD's, NMIDD's and/or SRVWUA's service area. The exchange would not cause additional growth and development beyond what was described in the no action alternative.

Implementation of the exchange agreement would reduce groundwater withdrawals in the GSF by an amount equivalent to the quantity of CAP water that the Community would store. According to current state law, prior to issuance of the LTSCs, five percent of the stored water would be retained in the aquifer for the purpose of recharge. The long-term effect would be to conserve groundwater supplies that otherwise would be reduced in the absence of the proposed action.

**Table 2: Effects determination for specified environmental issues**

<b>Environmental Issue</b>	<b>No</b>	<b>Yes</b>	<b>Uncertain</b>
This action would have an effect on public health or safety.	X		
This action or group of actions would have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources.	X		
This action would have highly uncertain environmental effects or involve unique or unknown environmental risks.	X		
This action would establish a precedent for future actions or represent a decision in principle about future actions with potentially substantial effects.	X		
This action would violate Federal, State, local, or tribal law, or requirements imposed for protection of the environment.	X		
This action would have socioeconomic effects, or a disproportionately high and adverse effect on low income or minority populations.	X		
This action would limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or substantially adversely affect the physical integrity of such sacred sites.	X		

## **3.0 Consultation and Coordination**

Dominic Graziani, Environmental Protection Specialist, Department of the Interior, Bureau of Reclamation; Lower Colorado Region, Phoenix Area Office.

### **3.1 Agencies and Persons Consulted**

#### **3.1.1 Persons Consulted**

James Beadnell, Contract and Repayment Specialist, Bureau of Reclamation

Lawrence Marquez, Manager, Native American Affairs Office Manager, Bureau of Reclamation

Sean Heath, Manager, Environmental Resources Management Division, Bureau of Reclamation

#### **3.1.2 Agencies Consulted**

An electronic copy of this Draft EA has been posted for public viewing and comment on Reclamation's Phoenix Area Office website at [www.usbr.gov/lc/phoenix](http://www.usbr.gov/lc/phoenix). Emailed copies of the Notice of Availability memorandum and Draft EA were distributed to the following entities:

Bureau of Indian Affairs Western Region, Environmental Quality Services

U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office

Central Arizona Water Conservation District

Arizona Department of Water Resources

Arizona Department of Environmental Quality

New Magma Irrigation and Drainage District

Hohokam Irrigation and Drainage District

Central Arizona Irrigation and Drainage District

Salt River Valley Water Users Association

Maricopa-Stanfield Irrigation and Drainage District

## 4.0 Reference List

40 CFR Part 1500-1508 Regulations for the Implementation of the National Environmental Policy Act, 2005.

43 CFR Part 46 Department of the Interior Office of the Secretary. Implementation of the National Environmental Policy Act (NEPA) of 1969.

Arizona Water Settlements Act, P.L. 108-451, December 2004.

Bureau of Reclamation Departmental Manual Part 516. Protection and Enhancement of Environmental Quality.

Bureau of Reclamation Draft Exchange Agreement, February 2014.

National Environmental Policy Act of 1969, as amended, Pub. L. 91-190, ELR STAT. NEPA § 2-209 codified as amended at 42 U.S.C. § 4321-4370h.

U.S. Department of the Interior, Bureau of Reclamation. NEPA Handbook. February 2002.

## APPENDIX A. SCOPING LETTER(S)



IN REPLY REFER TO:

PXAO-1500  
2.1.1.04

### United States Department of the Interior

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

JUN 21 2018

#### MEMORANDUM

To: All Interested Persons, Organizations, and Agencies

From: Leslie Myers  
Area Manager *Leslie A. Myers*

Subject: Notice of Public Scoping for Preparation of an Environmental Assessment (EA) for an Exchange Agreement (Agreement) of up to 25,000 Acre-Feet Annually (afa) of Central Arizona Project (CAP) Water from the Gila River Indian Community to the Maricopa-Stanfield Irrigation and Drainage District, Hohokam Irrigation and Drainage District, Central Arizona Irrigation and Drainage District, Roosevelt Irrigation and Drainage District and the Salt River Valley Water User's Association (Action within 14 days of the date stamp on this memorandum).

The Bureau of Reclamation is conducting public scoping to evaluate the potential for environmental impacts attributed to the proposed Agreement for the exchange of CAP water between the Gila River Indian Community (GRIC) and five Central Arizona Water Conservation District (CAWCD) – Groundwater Savings Facilities (GSFs). The GSFs are the Maricopa-Stanfield Irrigation and Drainage District (MSIDD), Hohokam Irrigation and Drainage District (HIDD), Central Arizona Irrigation and Drainage District (CAIDD), Roosevelt Water Conservation District (RWCD), Salt River Valley Water Users' Association (SRVWUA), each being a GSF. The Agreement allows up to 25,000 afa of the Community's CAP water to be scheduled and delivered to HIDD, MSIDD, CAIDD, NMIDD, RWCD, SRVWUA through existing infrastructure in-lieu of HIDD, MSIDD, CAIDD, NMIDD, RWCD, SRVWUA pumping groundwater. Individual storage permits will be obtained by each GSF from CAWCD to allow for storage of CAP water allotted per the Agreement.

In exchange for the in-lieu water being delivered to the GSF, the Community would earn long term storage credits that can be recovered or assigned at the Community's sole discretion at any location within the Phoenix/Pinal Active Management Area in accordance with Arizona State law (ARS§ 45-853.01). The proposed Agreement will be executed for a term of approximately 10 years. The Exchange Agreement would be automatically renewed for an additional period of 10 years, unless either party provides written notice to terminate or renegotiate the terms of the Storage Agreement.

We will consider all comments on the EA prior to making a final decision regarding the applicability of a Finding of No Significant Impact. The final decision will be available at [www.usbr.gov/lc/phoenix](http://www.usbr.gov/lc/phoenix). Please submit your comments to Mr. Dominic Graziani by mail at "Attn: Mr. Dominic Graziani, 6150 West Thunderbird Road, Glendale, AZ 85306" or by email to [dgraziani@usbr.gov](mailto:dgraziani@usbr.gov), no later than 14 days after the date stamped on this memorandum. Before including your address, phone number, email address, or other personal identifying information; please consider that this information is available for public review.

For additional information regarding this matter, please contact Mr. Graziani by email or by telephone at (623)773-6216.