

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Arizona Department of Water Resources Recommendation for the Reallocation of Non- Indian Agricultural Priority Central Arizona Project Water in Accordance with the Arizona Water Settlements Act of 2004



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

November 2019

Mission Statements

The Department of the Interior 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.

Table of Contents

CHAPTER 1. PURPOSE AND NEED.....	1
1.1 INTRODUCTION.....	1
1.2 BACKGROUND.....	1
1.2.1 Groundwater	1
1.2.2 Central Arizona Project.....	2
1.2.3 ADWR's Reallocation Recommendation Process.....	3
1.3 PROJECT LOCATION.....	3
1.4 PURPOSE AND NEED	5
1.5 PUBLIC INVOLVEMENT	6
CHAPTER 2. PROPOSED ACTION AND ALTERNATIVES.....	8
2.1 FORMULATION AND EVALUATION OF ALTERNATIVES.....	8
2.2 NO ACTION ALTERNATIVE (REJECTION OF ADWR RECOMMENDATION)	8
2.3 PROPOSED ACTION (APPROVAL OF ADWR RECOMMENDATION)	8
CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	10
3.1 POTENTIAL CONNECTED ACTIONS	10
3.2 CUMULATIVE EFFECTS.....	12
3.2.1 Past, Present, and Reasonably Foreseeable Future Actions.....	12
3.3 LAND USE	17
3.3.1 Affected Environment.....	17
3.3.2 Environmental Consequences.....	21
3.3.3 Cumulative Effects.....	22
3.4 BIOLOGICAL RESOURCES	23
3.4.1 Affected Environment.....	23
3.4.2 Environmental Consequences.....	31
3.4.3 Cumulative Effects.....	33
3.5 CULTURAL RESOURCES.....	34
3.5.1 Affected Environment.....	34
3.5.2 Environmental Consequences.....	35
3.5.3 Cumulative Effects.....	35
3.6 WATER RESOURCES	36
3.6.1 Affected Environment.....	37
3.6.2 Environmental Consequences.....	47
3.6.3 Cumulative Effects.....	50
3.7 SOCIOECONOMIC RESOURCES	53
3.7.1 Affected Environment.....	53
3.7.2 Environmental Consequences.....	59
3.7.3 Cumulative Effects.....	61

3.8	RESOURCES CONSIDERED BUT NOT AFFECTED.....	61
3.8.1	Air Quality	62
3.8.2	Geology and Soils	62
3.8.3	Recreation and Visual Resources.....	62
3.8.4	Indian Trust Assets (ITAs).....	63
CHAPTER 4. AGENCIES, TRIBES, AND PERSONS CONSULTED		64
CHAPTER 5. REFERENCES		66
FIGURE 1. PROJECT AREA MAP.....		4
FIGURE 2. BIOTIC COMMUNITY MAP.....		25
FIGURE 3. PROPOSED RECIPIENTS WITHIN PHOENIX AMA.....		40
FIGURE 4. PROPOSED RECIPIENTS WITHIN PINAL AMA.....		41
FIGURE 5. PROPOSED RECIPIENTS WITHIN TUCSON AMA.....		42
TABLE 1. LIST OF PROPOSED RECIPIENTS AND THEIR RECOMMENDED ALLOCATION.....		9
TABLE 2. LAND OWNERSHIP AND USES IN THE PHOENIX AMA.....		18
TABLE 3. LAND OWNERSHIP AND USES IN THE PINAL AMA.....		19
TABLE 4. LAND OWNERSHIP AND USES IN THE TUCSON AMA.....		20
TABLE 5. FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES, DESIGNATED OR PROPOSED CRITICAL HABITATS, WITHIN PHOENIX, PINAL, AND TUCSON AMAs, IN ARIZONA.....		28
TABLE 6. PROPOSED RECIPIENT SUMMARY.....		39
TABLE 7. HISTORIC AND PROJECTED POPULATIONS – AMAs AND PROPOSED RECIPIENTS.....		54
TABLE 8. NON-WHITE AND HISPANIC POPULATIONS FOR THE UNITED STATES, ARIZONA, COUNTIES AND COMMUNITIES RECEIVING REALLOCATED WATER.....		56
TABLE 9. ECONOMIC ATTRIBUTES FOR THE UNITED STATES, ARIZONA, COUNTIES AND COMMUNITIES RECEIVING REALLOCATED WATER, 2009-2010.....		57
APPENDIX A. PROPOSED RECIPIENT APPLICATIONS		
APPENDIX B. ADWR EVALUATION PROCESS AND CRITERIA		
APPENDIX C. PUBLIC SCOPING NEWLETTER		
APPENDIX D. PROPOSED RECIPIENT MEETING LETTER AND AGENDA		
APPENDIX E. NOTICE OF AVAILABILITY OF THE DRAFT EA		
APPENDIX F. DRAFT EA COMMENTS AND RESPONSES		

ACRONYMS AND ABBREVIATIONS

ADWR	Arizona Department of Water Resources
AFA	acre-feet annually
AGFD	Arizona Game and Fish Department
AMA	Active Management Area
Apache Junction WUCFD	Apache Junction Water Utilities Community Facilities District
ASM	Arizona State Museum
ASU	Arizona State University
AWSA	Arizona Water Settlements Act
BA	Biological Assessment
BCPA	Boulder Canyon Project Act
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
bls	below land surface
CAGRD	Central Arizona Groundwater Replenishment District
CAIDD	Central Arizona Irrigation and Drainage District
CAP	Central Arizona Project
CAWCD	Central Arizona Water Conservation District
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH	Critical Habitat
Code	Groundwater Code
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
Decree	1964 <i>Arizona v. California</i> decree
DSI	demand and supply imbalance
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act of 1973, as amended
ESRV	East Salt River Valley
FONSI	Finding of No Significant Impact
FR	Federal Register
FWCA	Fish and Wildlife Coordination Act
FWS	U.S. Fish and Wildlife Service
GSF	groundwater savings facilities
IDD	Irrigation and Drainage District
INA	Irrigation Non-Expansion Area

ITAs	Indian Trust Assets
LBDCP	Lower Basin Drought Contingency Plan
Listed species	federally listed species under the ESA, as amended
LTSC	long-term storage credits
MAFA	million acre-feet annually
M&I	municipal and industrial
MDWID	Metropolitan Domestic Water Improvement District
MHI	median household income
MCL	maximum contaminant level
MSIDD	Maricopa Stanfield Irrigation and Drainage District
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIA	Non-Indian Agricultural
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
National Register	National Register of Historic Places
P.L.	Public Law
Reclamation	Bureau of Reclamation
ROD	Record of Decision
Secretary	Secretary of the Interior
SHPO	State Historic Preservation Office
SMCL	secondary maximum contaminant level
USC	United States Code
USF	underground storage facility
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
WRDC	Water Resources Development Commission
WSRV	West Salt River Valley

Chapter 1. Purpose and Need

1.1 Introduction

The Arizona Water Settlements Act (AWSA) of 2004 (Public Law (P.L.) 108-451), Section 104 directed the Director of the Arizona Department of Water Resources (ADWR) to submit to the Secretary of the Interior (Secretary) a recommendation for reallocation of agricultural priority water. The Secretary, through the Bureau of Reclamation, proposes to reallocate 46,629 acre-feet annually (AFA) per year of designated Non-Indian Agricultural (NIA) Priority Central Arizona Project (CAP) water pursuant to AWSA and in accordance with ADWR recommendations.

In compliance with the AWSA, ADWR analyzed the applications for the NIA Priority CAP water and made a recommendation to the Secretary. Reclamation is tasked with completion of the environmental analysis on the recommendation so the Secretary has the necessary information on impacts on the human environment to make an informed decision on the recommendation.

The recommendation distributes NIA Priority CAP water into two pools. The first pool of 34,629 AFA is designated for Municipal Pool water providers. The other pool of 12,000 AFA is designated for Industrial Pool water users. The two pools total 46,629 AFA for use within the CAP service area (Maricopa, Pinal, and Pima Counties). Each pool lists individual applicants and the AFA to be reallocated, with the recommendation that each applicant be offered a CAP water service subcontract.

The AWSA states that, prior to making a decision to accept or reject ADWR's recommendation, the Secretary shall carry out all necessary reviews in accordance with applicable law. Reclamation is the designated Lead Federal Agency as defined in 43 CFR § 46.225-46.230. Cooperating Agencies include the Central Arizona Water Conservation District (CAWCD) and ADWR.

1.2 Background

1.2.1 Groundwater

The Groundwater Management Act became law in 1980, and was implemented as the Groundwater Code (Code) (ADWR c n.d.). The Code requires that ADWR track groundwater withdrawals to manage sources over the long term and during drought (ADWR d n.d.). In turn, ADWR established Active Management Areas (AMAs) in areas where high demand and/or significant overdraft were occurring, or have potential to occur, namely the Phoenix, Tucson, and Pinal AMAs (ADWR a n.d.).

Active Management Areas (AMAs)

AMAs are regulated according to management plans with clearly defined objectives for municipal, industrial, and agricultural water use and groundwater conservation and recharge. The guiding principal or goal of management for most of the AMAs includes achieving or maintaining safe yield. Safe yield results from balancing groundwater use with recharge and the use of renewable water sources, such as surface water and reclaimed water, to reduce or eliminate overdraft of groundwater. Colorado River water delivered through the CAP plays an important role in achieving the AMA objective of safe yield within the Phoenix, Tucson, and Pinal AMAs by reducing groundwater use and providing a renewable source of water for groundwater recharge.

1.2.2 Central Arizona Project

Authorized by Congress under the 1968 Colorado River Basin Project Act, the CAP delivers about 1.5 million acre-feet annually (MAFA) of Colorado River water to Arizona agricultural users, municipalities, industries, and Native American tribes and communities (CAP a n.d.). The CAP is operated by the CAWCD (CAP b n.d.).

Past, Current, and Future Allocations of CAP Water

Following authorization of the CAP, the Secretary requested recommendations from the predecessor agency to ADWR in planning for the distribution of CAP water among the users and potential recipients of CAP allocations. Several modifications were proposed over the years; and in 1983, the Secretary signed a Record of Decision (ROD) published in the *Federal Register* (48 FR 12446) that allocated specific amounts or percentages of CAP water to Indian, Municipal and Industrial (M&I), and NIA uses (ADWR 1983). The 1983 ROD also identified the method by which priorities would be applied to these water use sectors during years of water supply shortage (DOI 2010).

The 1983 ROD outlined that 309,828 AFA are allocated to Indian communities, 638,823 AFA are allocated to non-Indian M&I, and any remaining available CAP water is distributed to NIA users by proportion. Water from Indian, M&I, and NIA pools that was not delivered in any given year is available to be sold as excess CAP water to other users. Excess water is the water that is left after all long-term contract orders have been met. During years of water supply shortfall, M&I and Indian CAP users have first priority on CAP water supplies. Excess water contracts are reduced until eliminated, and then NIA water uses are reduced pro rata until exhausted.

After the initial 1983 allocation, a total of 65,647 AFA of M&I water and 29.3 percent of NIA water was not contracted, and therefore made available for reallocation at a later time. In addition, the NIA priority users had a “take-or-pay” provision in their subcontracts to pay for their annual allocation whether or not it was delivered. Due to this and other factors, the NIA subcontractors experienced financial difficulties. Litigation ensued and was resolved through the 2004 AWSA. The AWSA established a final allocation of CAP water, with additional

allocations of NIA water to Indian entities, a reallocation of the 65,647 AFA of the previously uncontracted M&I priority water to 20 specific M&I entities¹, and the reallocation of certain NIA Priority CAP water (AWSA, 2004). The AWSA directed the Secretary to allocate to ADWR up to 96,295 AFA of NIA Priority CAP water, to be held in trust for future reallocation (71 FR 165, August 25, 2006). At this time, because the 96,295 AFA of NIA Priority CAP water has not been through the reallocation process, it is ordered and used by excess water customers of the CAP. If reallocated through this process, this water would be able to be ordered and used by NIA Priority CAP customers.

1.2.3 ADWR's Reallocation Recommendation Process

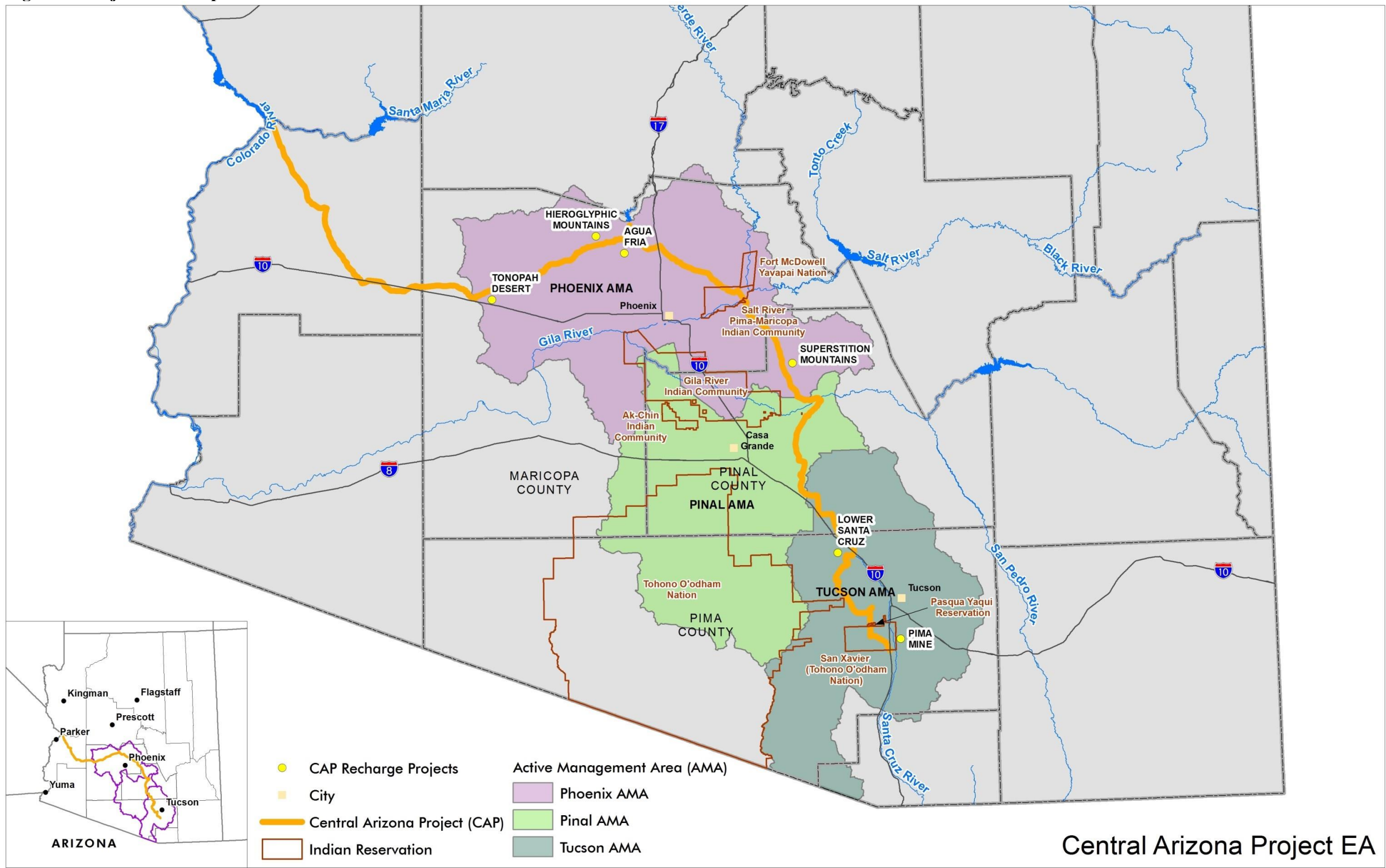
Applications were received for approximately three times the volumes of water available for reallocation in the municipal water provider and industrial water user categories, not including the municipal water provider category within the Central Arizona Irrigation and Drainage District (CAIDD) and Maricopa Stanfield Irrigation and Drainage District (MSIDD) areas. Within the municipal water provider category, 17 applications were received for a total requested amount of 93,879 AFA. A recommendation was made to allocate the full amount identified for this category of 34,629 AFA to 13 applicants (later changed to 12 applicants due to the purchase of H2O Water Company by the Town of Queen Creek). Within the industrial water user category, six applications were received for a total requested amount of 41,248 AFA. A recommendation was made to also allocate the full amount identified for this category of 12,000 AFA to the six applicants. The applications from M&I water users recommended by ADWR for water reallocations (Proposed Recipients) are shown in Appendix A. ADWR's recommendation was submitted to the Secretary on January 16, 2014, and the process for selecting the Proposed Recipients is in Appendix B. For more information on ADWR's reallocation process see <http://www.azwater.gov/AzDWR/PublicInformationOfficer/Non-IndianAgriculturalReallocationProcess.htm>.

1.3 Project Location

The project is located within the CAP service area in the Phoenix, Pinal, and Tucson AMAs (as described in Section 1.2, Background). Figure 1 shows the overall project area, and Figures 3 through 5 show the individual AMAs and Proposed Recipient service areas within each AMA.

¹ Specific entities that received portions of the 65,647 AF allocated by the 2004 AWSA include the Town of Superior, Cave Creek Water Company, Chaparral Water Company, Town of El Mirage, City of Goodyear, H2O Water Company, City of Mesa, City of Peoria, City of Scottsdale, Avra Water Cooperative, City of Chandler, Del Lago (Vail) Water Company, City of Glendale, Community Water Company of Green Valley, Metropolitan Domestic Water Improvement District, Town of Oro Valley, City of Phoenix, City of Surprise, City of Tucson, and Valley Utilities Water Company.

Figure 1. Project Area Map.



1.4 Purpose and Need

The AWSA obligates the Secretary to approve or reject ADWR's recommendation for reallocation. Based on ADWR's recommendation, the project would allow the reallocation of 46,629 AFA of NIA Priority CAP water to M&I users within the Phoenix, Pinal, and Tucson AMAs (Figure 1).

The NIA Priority CAP water reallocation would address the continuing imbalance of water supply and demand, in certain local and service areas of central Arizona by providing renewable water supplies to entities with a projected demand/supply imbalance based on ADWR's evaluation criteria (Appendix B). Although water use has declined or remained constant in recent decades, continued population growth in the state will eventually result in an overall water supply shortfall. The projected statewide water demand will increase to between 8.1 and 8.6 MAFA by 2035, and between 8.6 and 9.1 MAFA by 2060 (Water Resources Development Commission (WRDC) (2011).

In 2014, municipal water demand was 1.4 MAFA, which was 21 percent of Arizona's water demand. The WRDC (2011) estimated that municipal demand will increase to roughly 2.7 MAFA by 2035 and 3.4 MAFA by 2060. In 2014, industrial uses accounted for approximately 6 percent of Arizona's water demand (about 400,000 AFA). Industrial use is expected to increase over time to sustain economic growth. While these projections are based on high estimates of population growth, Arizona's urban populations are anticipated to grow even if economic growth is slower than expected. According to the WRDC, between 0.9 and 3.2 MAFA of water will need to be developed in Arizona over the next 20 years to sustain population growth and meet consumption demands for municipal, industrial, agricultural, and other water uses combined.

If ADWR's recommendation is accepted, some water users within the Phoenix, Pinal, and Tucson AMAs would receive allocations of the NIA Priority CAP water, and be offered subcontracts for such water. The Phoenix and Tucson metropolitan areas account for about 80 percent of Arizona's population and are expected to continue to be the major population centers, while Pinal County is currently dominated by an agricultural economy, and change of that land use is unknown (ADWR 2014a).

Both Phoenix and Pinal AMAs continue to experience annual overdraft of groundwater supplies even when renewable supplies, such as current CAP subcontracts and offsets to groundwater pumping, are considered. Although the Tucson AMA has experienced some recent years at or near safe yield, it is dependent on continued development of renewable supplies such as CAP water to continue to achieve safe yield conditions. The approval of the recommendation would contribute to the ADWR goal of reducing groundwater overdraft by increasing the Proposed Recipients' renewable surface water supplies.

1.5 Public Involvement

Public Scoping

Agency and public scoping for this EA began when Reclamation's scoping newsletter was sent on November 19, 2015 (Appendix C). The scoping newsletter was also posted on Reclamation's website on November 30, 2015. The scoping period was defined as November 19, 2015 to December 18, 2015. The scoping period expired and was later reinitiated at the request of stakeholders and was issued again through a Reclamation press release from January 5 to January 18, 2016 (Appendix C).

The Proposed Recipients of the NIA Priority CAP Water recommendation were invited to an informational meeting on December 7, 2015 (Appendix D). Reclamation presented information on the NEPA EA process and the upcoming public scoping meetings to the Proposed Recipients. There were 29 attendees at the meeting.

The following dates and locations indicate where and when public scoping meetings took place:

- Tuesday, December 8, 2015 in Phoenix, Arizona
- Wednesday, December 9, 2015 in Casa Grande, Arizona
- Thursday, December 10, 2015 in Tucson, Arizona

There were four meeting attendees on December 8, no attendees on December 9, and seven attendees on December 10.

Reclamation received two public responses during the scoping period. The first comment came from Save the Scenic Santa Ritas Association, and stated that Reclamation provided insufficient notice of the scoping process and requested an extension of the comment period. Reclamation honored this request and the comment period was extended by press release to January 18, 2016. The letter also stated that the Rosemont Mine should be analyzed as a connected action to the proposed water reallocation.

The second response came from the Pima County Regional Wastewater Reclamation Department. Pima County requested that the EA address impacts of the additional use of proposed NIA Priority CAP water by M&I recipients on other water users in the Tucson AMA, and address impacts on the natural environment. No tribal or other agency comments were received during the scoping period.

Draft EA Comment Period

The Draft EA was issued for public review and comment in June of 2016. Reclamation mailed Notices of Availability to federal, state, and local agencies, Native American Tribes, organizations, Proposed Recipients, and other interested stakeholders (Appendix E). A public meeting was held on June 22 in Casa Grande, Arizona, and the public comment period closed on July 22, 2016.

Reclamation reviewed and considered public comments received from one business, one public utility, two nongovernmental organizations, and two Tribes. The primary topic raised in the comments was the delivery of water to Proposed Recipients, Rosemont and Resolution Mines. Commenters were also concerned with the construction of water delivery systems by Proposed Recipients, who do not yet have such systems in place to receive their recommended reallocation of NIA Priority CAP water. Responses to comments received are found in Appendix F.

Tribal Consultation

Reclamation initiated consultation with the Ak-Chin Indian Community, Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Pascua Yaqui Tribe, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tonto Apache Tribe, Tohono O'odham Nation, Yavapai-Apache Nation, and the Yavapai-Prescott Indian Tribe in November 2015. Reclamation conducted in-person consultation with the Tohono O'odham Nation on February 17, 2017 and with the San Carlos Apache Tribe on June 16, 2017 at the request of the Tribes. Both Tribes oppose the proposed reallocation of NIA priority CAP water to Resolution Copper Mining and Rosemont Copper Company. Reclamation's responses to the comments received by the San Carlos Apache Tribe and Tohono O'odham Nation are located in Appendix F, and are addressed in Section 3 of this document.

Chapter 2. Proposed Action and Alternatives

2.1 Formulation and Evaluation of Alternatives

The AWSA authorized and directed the Secretary of the Interior to carry out all necessary reviews of the proposed reallocation in accordance with applicable Federal law. The AWSA clearly states that the Secretary may only approve or disapprove ADWR's NIA reallocation recommendation. For the purposes of this NEPA analysis, only two alternatives were considered: The Proposed Action, which is the approval of the ADWR recommendation, and the No Action, which is the rejection of the ADWR recommendation.

2.2 No Action Alternative (Rejection of ADWR Recommendation)

The No Action Alternative is the rejection of ADWR's water reallocation recommendation by the Secretary. Defining the No Action alternative as "the rejection of ADWR's reallocation recommendation" allows the inclusion of a no action alternative in accordance with 40 CFR § 1502.14, and provides a basis with which to compare the Proposed Action.

In accordance with the AWSA, if ADWR's reallocation recommendation was rejected, ADWR would then be required to revise its recommendation and submit it to the Secretary. A new recommendation could potentially require a new reallocation determination process and NEPA analysis. It is not possible to assume what a different recommendation would be; thus, the No Action alternative reflects an uncertain delay in the reallocation process. The NIA Priority CAP water would continue to be sold as "excess CAP water" whenever excess supplies are available.

2.3 Proposed Action (Approval of ADWR Recommendation)

The Proposed Action is the Secretary's approval of ADWR's recommendation for reallocation of 46,629 AFA of NIA Priority CAP water. In compliance with the AWSA, ADWR analyzed the applications for the NIA Priority CAP water and made a recommendation to the Secretary to distribute NIA Priority CAP water into two pools: 34,629 AFA for Municipal Pool water providers and 12,000 AFA for Industrial Pool water users, totaling 46,629 AFA for use within the CAP service area. Although the water would be assigned for M&I purposes, the reallocated water would retain its NIA priority. During periods of shortages on the Colorado River, the Proposed Recipients may not receive all or part of the NIA Priority CAP water due to the low priority of the water within the CAP priority structure. The list of Proposed Recipients and the AFA proposed by ADWR for reallocation to each recipient are shown in Table 1.

Table 1. List of Proposed Recipients and Their Recommended Allocation.

Recipient	Pool	Volume (AFA)	New Infrastructure Required
Apache Junction Water Utilities Community Facilities District (Apache Junction WUCFD)	Municipal	817	No
Carefree Water Company	Municipal	112	No
Central Arizona Groundwater Replenishment District	Municipal	18,185	No
City of Buckeye	Municipal	2,786	No ¹
City of El Mirage	Municipal	1,318	No
EPCOR - Sun City West	Municipal	1,000	No
Freeport-McMoRan - Sierrita Inc.	Industrial	5,678	No
Johnson Utilities	Municipal	3,217	No
Metropolitan Domestic Water Improvement Creek	Municipal	299	No
New Harquahala Generating Company	Industrial	400	No
Resolution Copper Mining	Industrial	2,238	No
Rosemont Copper Co.	Industrial	1,124	No
Salt River Project	Industrial	2,160	No
Town of Cave Creek	Municipal	386	No
Town of Gilbert	Municipal	1,832	No
Town of Marana	Municipal	515	No
Town of Queen Creek*	Municipal	4,162	No
Viewpoint RV and Golf Resort	Industrial	400	No
Total Volume (AFA)		46,629	

*H2O Water Company was acquired by the Town of Queen Creek in November 2013. Therefore, their proposed reallocations have been combined under the Town of Queen Creek (1,000 AFA for H2O plus 3,162 AFA for Town of Queen Creek).

¹ Buckeye 2017.

Under the Proposed Action, the Secretary would accept ADWR's recommendation for NIA Priority CAP Water reallocation, reallocate water in accordance with the recommendation, and offer to enter into subcontracts with the Proposed Recipients. The NIA Priority CAP water would be available based on established CAP water priority standards. All recipients could use existing infrastructure to receive the new allocation; nevertheless, prior to recipients taking and using the NIA Priority CAP Water reallocation, all environmental compliance, including NEPA, would have to be completed. This environmental compliance clause is a standard part of all CAP subcontracts.

Chapter 3. Affected Environment and Environmental Consequences

The consequences of the No Action alternative are described for each of the resources to provide a baseline for the Proposed Action to be analyzed. For each resource, the cumulative effects of the Proposed Action are analyzed. Section 3.8 – Resources Considered But Not Affected summarizes the resources considered for analysis, which were determined not likely to be affected by the project.

The 18 Proposed Recipients recommended by ADWR for the Proposed Reallocation include 12 municipal and 6 industrial users. The discussions on the affected environment and environmental consequences of the Proposed Action include a regional analysis based on the locations of the Proposed Recipients. To understand broad impacts resulting from accepting the Proposed Reallocation, the potential direct, indirect, and cumulative impacts are analyzed with respect to individual Proposed Recipients and their locations.

All recipients could use existing infrastructure to receive the new allocation. For recipients who propose infrastructure in the future to receive or use the NIA Priority CAP Water reallocation, but do not currently have specific plans (see Table 6 in Section 3.6.1), no attempt has been made in this EA to quantify potential impacts from construction and operation of these new facilities, their location, and the resulting land disturbance that would occur. This is because those specifics are unknown at this time and the Proposed Recipients have the option to recharge their allocation through ADWR's Underground Water Storage, Savings & Replenishment Program using existing infrastructure. The water service subcontract for the Proposed Recipients contains language that requires completion of site-specific environmental clearances prior to taking and using the reallocated water.

3.1 Potential Connected Actions

A comment received during the public scoping period indicated an environmental impact statement must be prepared if the Proposed Action included allocation of CAP water to the proposed Rosemont Mine, because the mine would be a connected action. In addition, impacts of the mine would need to be evaluated in the context of the Proposed Action (see Section 1.5 – Public Involvement). This section addresses the Proposed Action and its relationship to the proposed Rosemont Mine, the proposed Resolution Mine, and the active Sierrita Mine.

NEPA regulations (40 CFR § 1508.25) indicate actions are considered connected actions if they: (i) Automatically trigger other actions that may require environmental impact statements; (ii) cannot or will not proceed unless other actions are taken previously or simultaneously; or (iii) are interdependent parts of a larger action and depend on the larger action for their justification.

Final EA Chapter 3. Affected Environment and Environmental Consequences

To evaluate whether the Proposed Action and the proposed Rosemont Mine, Resolution Mine, and the active Sierrita Mine are connected, Reclamation applied the three criteria in the NEPA regulations regarding connected actions:

1. Secretary approval of ADWR's recommendation for the proposed mines to receive NIA Priority CAP water does not automatically trigger development of the proposed mines and would not alter the active mine's operations. The approval of the proposed mines and any conditions that might be required, are not contingent on the Proposed Action. The Secretary's decision to approve or disapprove ADWR's proposal for reallocation is not contingent on the mine's potential use of NIA water. In the absence of the Proposed Action, all of the mines would be more reliant on groundwater pumping to meet their future needs. Under Arizona water law, there is no requirement for a mine to recharge water to offset the groundwater extracted under a mineral extraction and metallurgical processing groundwater withdrawal permit (mineral extraction permit). The NIA CAP allocations under this Proposed Action would provide the mines water they could use to offset water usage, that would otherwise have been supplied by a mineral extraction permit. Therefore, the Proposed Action of providing water to the mines does not trigger mining in the case of the existing mine, nor does it trigger the permitting of the proposed mines, because the mines could receive the amount of water they need for operations regardless of whether or not the Proposed Action is approved.

2. Both the Rosemont and Sierrita Mines have groundwater pumping rights that are sufficient to meet their water needs, but are seeking to supplement their water supplies with NIA Priority CAP water to reduce groundwater pumping. As of June 2013, the proposed Rosemont Mine had accrued 42,593 AFA of long-term storage credits (LTSC) in the Tucson AMA. Rosemont Mine's estimated average water demand is 5,000 AFA. Sierrita Mine has an average water demand of 23,098 AFA, which is supplied by its existing groundwater rights and withdrawal permits.

Resolution Mine's water management plan consists of using CAP water directly, LTSC, groundwater pumping via existing Type II groundwater rights, and a mineral extraction permit it intends to obtain from ADWR. As part of its plan to use renewable water supplies, it would continue to purchase and store excess CAP water as available, and plans to acquire additional water from both long-term and near-term opportunity purchases from other water uses throughout Arizona (Resolution 2013). Resolution Mine has been actively purchasing excess CAP water and has already accrued approximately 312,000 AF of LTSC of the 500,000 AF estimated to be needed for the life of the mine (Resolution 2016). In the absence of any additional CAP water or water storage credits, the groundwater pumping from the existing Type II groundwater rights and the mineral extraction permit would provide the necessary additional water needed for mining operations.

3. The Proposed Action can proceed even if the proposed mines are not permitted prior to or simultaneously with the Secretary's approval. If approved, both proposed mines intend to store their allotment during pre-production to offset future withdrawals during

Final EA Chapter 3. Affected Environment and Environmental Consequences

production. If not approved, the allotments recommended for the proposed mines would be reverted to the pool for the next reallocation process. Regardless of when the mines are permitted and their mineral extraction initiated, the proposed mines' ability to receive and store CAP water as part of the Proposed Action is independent of their mining actions. For the Sierrita Mine, mining operations would continue to proceed regardless of the Proposed Action.

4. Because each proposed mine's receipt of CAP water is not contingent on mine approval, the Proposed Action does not depend upon the proposed mines. Neither of the proposed mines, nor the active mine, depend upon receipt of CAP water to proceed with their mining actions. Therefore, Reclamation believes these actions are not interdependent parts of a larger action, nor do they depend on a larger action for their justification.

Reclamation has determined the Proposed Action and the approval of the mines are not connected actions under the NEPA. Reclamation's decision on the Proposed Action would not remove or restrict discretion to approve or disapprove the proposed mines, or to establish conditions or require mitigation for the proposed mines' Plans of Operation. The U.S. Forest Service issued a Record of Decision (ROD) approving the Rosemont Copper Mine on June 7, 2017, and the Army Corp of Engineers issued a ROD and a Permit under Section 404 of the Clean Water Act on March 8, 2019. Both actions occurred without reliance upon this Proposed Action. Rosemont Mine is currently awaiting final approval of the Mine Plan of Operations. Additionally, litigation over the agency actions approving the Rosemont Mine remains pending, and until a final judgment is entered and rights of appeal are exhausted, the future of the project remains unclear. The U.S. Forest Service issued a Draft Environmental Impact Statement (EIS) for Resolution Copper Mine on August 9, 2019 and is taking public comments through November 7, 2019.

3.2 Cumulative Effects

Potential effects of the Proposed Reallocation could occur in the context of other actions that are likely to occur in the analysis area. Past, present, and potential future actions were identified through public and agency scoping, and available information on known projects under consideration.

3.2.1 Past, Present, and Reasonably Foreseeable Future Actions

Because of the nature of the Proposed Action and the extensive analysis area, only select municipal planning projects or other site-specific actions are included in the cumulative effects analysis. These projects are within the Phoenix, Tucson, and Pinal AMAs, and are associated with CAP.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Lower Basin Drought Contingency Plan Agreement

The Lower Basin Drought Contingency Plan (LBDCP) Agreement, which was signed on May 20, 2019, focuses on implementing management strategies to reduce the risk of reaching critical water elevations in Lake Mead. The LBDCP works in conjunction with the 2007 Colorado River Interim Guidelines for Lower Basin Shortages, and prescribes agreed-upon contributions of additional water to Lake Mead storage at predetermined lake elevations by Arizona, California, and Nevada. It also creates additional flexibility to incentivize voluntary conservation of water to be stored in Lake Mead.

Exchange Agreement of CAP Water from the Gila River Indian Community to Multiple GSFs

This Agreement is for the exchange of CAP water between the Gila River Indian Community (GRIC) and five CAWCD groundwater savings facilities (GSFs): Maricopa- Stanfield Irrigation and Drainage District, Hohokam Irrigation and Drainage District, Central Arizona Irrigation and Drainage District, Roosevelt Water Conservation District, and the Salt River Valley Water Users' Association. This Agreement allows up to 25,000 AFA of GRIC's CAP water to be scheduled and delivered to these GSFs through existing infrastructure in-lieu of pumping groundwater. In exchange for the delivery of in-lieu water, GRIC would earn LTSC that can be recovered or assigned at the GRIC'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 would be executed for a term of approximately 10 years, at which time it would be automatically renewed for an additional period of 10 years, unless otherwise negotiated. A Final EA and Finding of No Significant Impact (FONSI) was issued on May 23, 2019 (Reclamation 2019).

Scottsdale Wheeling Agreement with CAP

This project involves use of the CAP canal to deliver water from groundwater pumping to recipients in the Scottsdale vicinity using a wheeling agreement. The wheeling agreement involves transporting non-CAP project water through the CAP canal. The groundwater pumping would take place on City of Scottsdale property, within the Phoenix AMA. This water would then be delivered, via the CAP canal, to multiple golf courses and the City of Scottsdale as a supplemental water supply.

The intended outcome of the project would be to reduce the amount of potable water used to irrigate the golf courses. The project would transport an estimated 3,000 AFA of groundwater to the Phoenix AMA (City of Scottsdale 2015).

Community Water Company of Green Valley (CWC) Pipeline and Recharge Project

The proposed project would involve construction of an underground storage facility (USF) and a pipeline to transport CAP water to the USF (Figure 5). CWC is one of the only CAP water entitlement holders in the Tucson area with 2,858 AFA. In 2010, the Secretary approved the EA for Project Renew, authorizing CWC to transport and deliver the CAP entitlement. A pipeline would transport CAP water from the CAP terminus at Pima Mine Road and I-19 to a recharge

Final EA Chapter 3. Affected Environment and Environmental Consequences

facility at Old Nogales Highway. The recharge station would be located on a 72-acre State Trust Land parcel near the Town of Sahuarita. The initial phase would recharge 3,000 AFA at this site. The EA completed for the project found no significant negative impacts, and some beneficial impacts on groundwater recharge. The USF would likely be used to store Rosemont's reallocation of NIA CAP water considered under this proposal. The project is expected to be completed in 2020.

Farmers' Investment Company (FICO) Pipeline

FICO proposes to construct a pipeline to deliver CAP water to its pecan groves. The pipeline would parallel the CWC pipeline discussed above, and CAP water transported through it would be used to recharge groundwater. FICO has been designated a groundwater savings facility (GSF) by ADWR, which was adopted by the Santa Cruz town council in 2015. FICO plans to operate the pecan farm for the foreseeable future, and CAP water delivered by the pipeline would be used for agriculture. FICO uses about 25,000 AFA, all of which has come from groundwater. FICO would be able to access about 3,900 AFA from the CAP, which would reduce the need for groundwater. Additionally, the pipeline would enable FICO to accept and store CAP water from other parties who have CAP water allocations (Sahuarita Farms 2016). The Sierrita Mine, which has leased CAP water from the Gila River Indian Community (GRIC) has proposed to enter into an agreement to partially fund the construction of the FICO pipeline, and recharge its leased CAP water in FICO's GSF. A final EA and FONSI was issued on December 21, 2018 (Reclamation 2018).

Pima County Trails Project

The CAP Canal Trail was conceived during the initial construction plan for the CAP canal. Pima County has proposed to construct a 60-mile trail along the CAP canal in Pima County. The CAP Canal Trail has been listed on the National Recreation Trail (National Register). The CAP Canal Trail segment (Tortolita Segment) has been approved for construction, which is planned for October 2019. The 7-mile stretch would be located on the berm along the eastern side of the canal. A final EA and FONSI on the Marana trail segment (Central Arizona Project Canal Trail: Tangerine Road to Pinal County Line EA) were completed in June 2018 (Reclamation 2018).

Pinal County Trails Project

Similar to the Pima County Trails Project, Pinal County has proposed to construct a recreational trail along the CAP canal in Pinal County. Completion of an initial segment (Park Link Segment) of this project extend 10.5 miles north from the Pima County trail segment in Pinal County. The trail is located along 9.8 miles of the CAP canal maintenance road and includes 0.7 miles of new trail to connect existing maintenance roads. A final EA and FONSI (Central Arizona Project Canal Trail: Pinal-Pima County Line to Park Link Drive (Park Link Segment) EA) were completed in October 2018 (Reclamation 2018).

Final EA Chapter 3. Affected Environment and Environmental Consequences

San Xavier Cooperative Farm Extension

The Southern Arizona Water Rights Settlement Act (P.L. 97-293) of 1982 provided Federal funds to rehabilitate the original San Xavier Cooperative Farm (Co-Op), and build a pipeline to deliver CAP water to agricultural fields within the farm. In 2000, a 5.6 mile long pipeline (CAP Link Pipeline) linking the CAP Canal and the Co-Op's original water distribution system was completed, and in 2007, the rehabilitation of the Co-Op was completed. The AWSA of 2004 (P.L. 108-451) directed the Secretary of Interior, through Reclamation, to design and construct an extension of the irrigation system to deliver CAP water to additional lands for the Co-Op, resulting in a system that will serve up to 2,300 net irrigable acres on the San Xavier Reservation. The San Xavier Cooperative Association and the Co-Op have introduced a proposal to extend the existing Co-Op to incorporate approximately 1,094 acres of land proposed for agricultural use, which would put to beneficial use a greater portion of the San Xavier Reservation's available CAP water. Reclamation completed a final EA and FONSI for this project in November 2018 (Reclamation 2018).

Lost Dutchman Heights/Portalis Project

The Portalis Project, formerly known as the Lost Dutchman Heights Project, consists of a master planned community development on Arizona State Trust Land located south of the City of Apache Junction in Pinal County. The concept plan was drafted by Apache Junction in 2014. Apache Junction WUCFD would provide the water utility services for this development.

Southwest Diablo Village Project

The Southwest Diablo Village Project is an approximately 1,609-acre housing development under construction west of Tucson. Water utility services are provided by Metropolitan Domestic Water Improvement District (MDWID).

Rosemont Mine Project

The Rosemont Mine Project is a proposed open-pit copper/molybdenum/silver mine located about 30 miles south of Tucson in the Santa Rita Mountains in Pima County, Arizona. The project would be operated by Rosemont Copper Company. Construction, operation, reclamation, and closure are predicted to occur over a 24.5 to 30-year period. Water consumption for the project would average 5,000 AFA. Water supply for the project would be from wells located in the greater Sahuarita and Green Valley areas of the Tucson AMA from which the permitted 6,000 AFA would be withdrawn (ADWR Permit No. 59-215979.0000). Rosemont would transmit the water via a pipeline to their mine site. To reduce the amount of groundwater consumed by the project, Rosemont has purchased and stored excess CAP water in the Tucson AMA. Stored CAP water would either be recovered during the mine operation phase or extinguished to keep the aquifer whole. Rosemont may also directly use their CAP allocation depending on future infrastructure constructed after the mine is operating. A Final Environmental Impact Statement (FEIS) and draft ROD were prepared for the project in December 2013, an errata to the FEIS was prepared in April 2017, and a final ROD was issued in

Final EA Chapter 3. Affected Environment and Environmental Consequences

June 2017 (USFS, 2017). The Army Corps of Engineers issued a ROD and a Permit under Section 404 of the Clean Water Act on March 8, 2019; however, as identified in Section 3.1, litigation over the agency actions approving the Rosemont Mine remains pending. Rosemont has applied for an allocation of the NIA CAP water considered under this proposal (1,124 AFA) (Section 2.3).

Resolution Mine Project

The Resolution Mine Project is a proposed underground copper mine near Superior, about 65 miles east of Phoenix. A 2014 land exchange allowed the project to move forward. The land exchange consists of Resolution receiving 2,422 acres of National Forest land in exchange for deeding to the federal government 5,344 acres of private land. NEPA review of the combined mine project and land exchange was initiated in March 2016 by the Tonto National Forest (TNF) with a Notice of Intent and associated public scoping process. A draft Alternatives Evaluation Report was issued in November 2017, and a draft EIS was issued on August 9, 2019. Resolution Mine's water management plan consists of using CAP water directly, accruing LTSC, groundwater pumping via existing Type II groundwater rights, and an ADWR mineral extraction permit. The Draft EIS identifies the fresh water fed into the mine as makeup water, which would come from a desert wellfield located in the East Salt River Valley Subbasin (ESRV) of the Phoenix AMA, along the Magma Arizona Railroad Company (MARRCO) corridor. The total quantity of makeup water needed for the life of the mine is estimated to be between 180,000 and 590,000 AF, based on the 6 alternatives in the Draft EIS (U.S. Forest Service, 2019).

Resolution's existing Type II groundwater rights and mineral extraction groundwater withdrawal permits include Permit ID 59-524492 for up to 5,000 AFA, 58-130703 for up to 315 AFA, and 58-117402 for up to 1,490 AFA. In addition, Resolution Mine has acquired approximately 312,000 AF of LTSC (Resolution 2016). Recovery of the stored water along with groundwater from Resolution's Type II groundwater and mineral extraction permits would be from the desert wellfield within the MARRCO corridor (U.S. Forest Service, 2019). The exact location of the wellfield would be determined as part of an environmental impact assessment under the ADWR program. The NIA CAP water considered under this proposal is for a recommended allocation of 2,238 AFA for recharge and storage prior to mine operations, and potential future direct use if the mine is approved.

Water Demands, Population Growth, and Land Use

Water demands in the Tucson and Phoenix AMAs have increased over time and are expected to continue to increase by about 6 percent and 19 percent by 2040, respectively. Water demand in the Pinal AMA is expected to decrease by about 11 percent during the same period due to the reduction of the agricultural sector and increase in residential development, and increasing cost of water in the county (Pinal Comprehensive Plan 2016). The agricultural sectors in all three AMAs are declining, and water use for agriculture is expected to decrease over the next 25 years. By 2040, the population in the AMAs is expected to increase by 57 percent in the Phoenix AMA, 171 percent in the Pinal AMA, and 38 percent in the Tucson AMA (ADWR 2016a).

Final EA Chapter 3. Affected Environment and Environmental Consequences

Climate Change

The potential effects of climate change are being considered as a component of cumulative impacts, and are analyzed for each resource using the best available scientific information.

Global climate change is occurring, as evidenced by increased air and ocean temperatures, widespread melting of snow and ice, and rising global average sea levels (Intergovernmental Panel on Climate Change 2014). These changes, however, are not uniform, and there are regional variations. Climate models predict that the arid regions of the southwestern United States will become increasingly dry and that a transition to a more arid climate is already underway (Lenart et al. 2007; Loehman 2010). Drought will affect important water sources, including the Colorado River Basin. Combined with expected population growth, climate change will exacerbate existing stresses (Garfin et al. 2014). Colorado River flows, which supply water to the CAP, are likely to decrease 5 to 20 percent by 2050 due to climate change (Reclamation 2012).

Changing climate conditions in the Southwest, including increased temperatures, reduced precipitation, lower snowpack, and increased evapotranspiration, are likely to result in significant changes to the hydrologic cycle and water sources, for both human use and ecosystem function. The combined effect of cyclical drought and a changing climate are expected to result in a continued warming and drying trend for Arizona. With Arizona's reliance on CAP water to supply a significant quantity of renewable water supplies to the state, and Arizona's junior water right for Colorado River water, the projected climate changes have the potential to decrease the state's Colorado River water supply while simultaneously increasing water demand.

3.3 Land Use

The analysis area for evaluation of land use impacts is the Phoenix, Pinal, and Tucson AMAs, and, where appropriate to provide a better picture of land use, Maricopa, Pima, and Pinal Counties were included in the analysis. Yavapai County overlaps only a small portion of the Phoenix AMA and is not included in the analysis as none of the Proposed Recipients are located within that county. All of the Proposed Recipients fall within the three AMAs and the three counties listed above. Land ownership within the AMAs includes private, federal, state trust, tribal, county, and municipal. State trust lands are owned by the state of Arizona and are managed to maximize profit for the benefit of the public school system. State law authorizes state trust lands to be sold for private development under specific circumstances. The current land ownership in each of the AMAs includes land managed by Reclamation, related to the CAP, including associated infrastructure and recharge stations.

3.3.1 Affected Environment

Phoenix AMA Land Ownership and Use

The Phoenix AMA includes portions of Maricopa County and Pinal County, and a small portion of southern Yavapai County. This AMA is 5,646 square miles (3.61 million acres) and is

Final EA Chapter 3. Affected Environment and Environmental Consequences

dominated by private land under residential, commercial, and agricultural uses. Table 2 outlines the land ownership and uses in the Phoenix AMA.

TABLE 2. LAND OWNERSHIP AND USES IN THE PHOENIX AMA.

Ownership	Managing Entity	Percent of Ownership	Uses
Private	Various	43.7	Includes residential, industrial, and agricultural lands.
State	State Trust Lands	16.0	Includes lands used for grazing and agriculture.
Federal	BLM	18.3	Includes portions of the Big Horn, Hummingbird Springs, Signal Mountain, Sierra Estrella, North and South Maricopa Mountains Wildernesses, and a portion of the Sonoran Desert National Monument. Land uses include recreation, grazing, and resource conservation.
Federal	U.S. Forest Service (USFS)-Tonto National Forest	10.2	Includes a portion of the Superstition Wilderness. Land uses include recreation, grazing, and resource conservation.
Federal	U.S. Military	0.2	Land uses include Luke Air Force Base and other military activity.
Federal	National Park Service (NPS)	0.1	Includes the Hohokam National Monument. Land uses include resource conservation and recreation.
Tribal	BIA and Tribes	8.0	Includes portions of the Fort McDowell Yavapai Reservation, Salt River Pima-Maricopa Indian Community, and GRIC. Land uses include domestic, commercial, and agriculture.
Other	Reclamation	3.6	Includes land managed for the CAP and its associated facilities, and CAWCD-operated groundwater recharge facilities. Other land uses include resource conservation and recreation.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Ownership	Managing Entity	Percent of Ownership	Uses
Other	Local and County		Includes local and regional parks, including White Tank Mountain Regional Park (30,000 acres), South Mountain Park (16,000 acres), Estrella Mountain Park (19,840 acres), and McDowell Mountain Regional Park (21,099 acres). Land use includes recreation.

Source: ADWR 2010.

Pinal AMA Land Ownership and Use

The Pinal AMA includes portions of Pima, Pinal, and Maricopa Counties. This AMA is 4,100 square miles (2.62 million acres). The Pinal AMA is dominated by tribal lands under agricultural, grazing, residential, and commercial uses. Table 3 outlines the land ownership and uses in the Pinal AMA.

TABLE 3. LAND OWNERSHIP AND USES IN THE PINAL AMA.

Ownership	Managing Entity	Percent of Ownership	Uses
Private	Various	22.5	Includes residential, industrial, mining, and agricultural lands.
State	State Trust Lands	13.0	Includes portions of the Ironwood and Sonoran Desert National Monuments. Land uses include agriculture, grazing, and recreation.
Federal	BLM	10.5	Includes portions of the Coyote Mountain and Sierra Estrella Wildernesses, a portion of the Sonoran Desert, and Ironwood National Monuments. Land uses include recreation, grazing, and resource conservation.
Federal	U.S. Military	1.9	Includes Barry Goldwater Air Force Range, part of which is within the Sonoran Desert National Monument. Land use includes military activity.
Tribal	BIA and Tribes	51.4	Includes portions of the Tohono O'odham Reservation, Ak-Chin Indian Reservation, and GRIC. Land uses include domestic, commercial, agriculture, and grazing.
Other	Reclamation	0.7	Includes land managed for the CAP and its associated facilities, and CAWCD-operated groundwater recharge facilities. Other land uses include resource conservation and recreation.
Other	Local and County		Includes local and county parks. Land use includes recreation.

Source: ADWR 2010.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Tucson AMA Land Ownership and Use

The Tucson AMA includes portions of Pima and Pinal Counties. This AMA is 3,869 square miles (2.48 million acres). The Tucson AMA has a relatively large proportion of land held in state trust, which is used primarily for grazing. Table 4 outlines the land ownership and uses in the Tucson AMA.

TABLE 4. LAND OWNERSHIP AND USES IN THE TUCSON AMA.

Ownership	Managing Entity	Percent of Ownership	Uses
Private	Various	31.2	Includes residential, industrial, mining, and agricultural lands.
State	State Trust Lands	37.8	Primary land use is grazing.
Federal	BLM	6.2	Includes portions of the Baboquivari Peak and Coyote Mountain Wildernesses, and a portion of the Ironwood National Monument. Land uses include recreation, grazing, and resource conservation.
Federal	USFS-Coronado National Forest	11.6	Includes portions of the Pajarita, Pusch Ridge, Rincon Mountain, and Mt. Wrightson Wildernesses. Land uses include recreation, mining, grazing, and resource conservation.
Federal	FWS	4.6	Includes the Buenos Aires National Wildlife Refuge. Land uses include resource conservation and recreation.
Federal	U.S. Military	0.4	Includes Davis Monthan Air Force Base. Land use includes military activity.
Federal	NPS	3.0	Includes Saguaro National Park and Saguaro Wilderness. Land uses include resource conservation and recreation.
Tribal	BIA and Tribes	4.4	Includes portions of the Tohono O’odham Reservation and Pascua Yaqui Indian Reservation. Land uses include agriculture, grazing, domestic, and commercial.
Other	Reclamation	0.8	Includes land managed for the CAP and its associated facilities, and CAWCD-operated groundwater recharge facilities. Other land uses include resource conservation and recreation.
Other	Local and County		Includes local and county parks. Land use includes recreation.

Source: ADWR 2010.

Final EA Chapter 3. Affected Environment and Environmental Consequences

County Level Land Use

Arizona's counties are required by state law to complete comprehensive plans, which outline land use and economic strategies to accommodate projected population growth; noting that development within the counties should happen in areas where services and infrastructure, including access to water, are currently or readily available to meet the needs of residents and businesses. Maricopa, Pima, and Pinal Counties have distinct land use patterns, with zoning for residential, industrial, and commercial uses within incorporated places.

Maricopa County, which falls largely within the Phoenix AMA, is the most densely populated county in the state. Maricopa County's comprehensive plan identifies areas where urban growth should be concentrated based on the availability of infrastructure, including water. About 30 percent of the county is private land and 11 percent is state trust land (Maricopa County Comprehensive Plan 2016).

Pima County is characterized by a mix of rapidly growing urban areas and rural, less-densely populated areas. Pima County identifies in-fill of urban areas that will result in relatively high-density population in urban centers as a land use strategy for the coming decade to accommodate growing population demands without encroaching on open space and wildlife habitat. About 31.2 percent of the land in the county is privately owned and 13 percent is state trust land (Pima County Comprehensive Plan 2015).

Pinal County is characterized by rural, low-density land use patterns, with much of the land under tribal ownership. The Pinal County comprehensive plan identifies a relatively large proportion of land to be designated as open space and trails, to preserve the county's rural character. Pinal County has seen a decrease in agricultural land use and production, while experiencing residential development. About 27 percent of the land in the county is privately owned and 36 percent of the county is state trust land (Pinal County Comprehensive Plan Update 2014).

Industrial Land Use

Industrial development within the AMAs takes place on private, state trust, and federal lands. The industrial Proposed Recipients are located on private and federal lands within the Phoenix and Tucson AMAs, and are within Maricopa, Pima, and Pinal Counties. Industrial development on private land is subject to zoning laws within municipalities and counties, as outlined in the comprehensive plans. Industrial development on federal lands requires a permit and compliance with the NEPA.

3.3.2 Environmental Consequences

No Action Alternative

Under the No Action alternative, land ownership and use, including residential, commercial, and industrial uses, within the Phoenix, Pinal, and Tucson AMAs would continue under the current

Final EA Chapter 3. Affected Environment and Environmental Consequences

patterns. Private land would continue to be developed following state, county, and municipal guidelines and zoning restrictions. Land use patterns would likely change as population growth occurs, and the economies in the AMAs and counties would continue to shift from rural to urban centers. Before development of subdivisions in the AMAs can take place, developers must demonstrate an assured water supply, which verifies the subdivision has available water for the next 100 years (ADWR 2011). If developers were unable to demonstrate an assured water supply, the rate of development of residential areas could be affected, and reliance upon Central Arizona Groundwater Replenishment District (CAGRD) could increase. It is expected in all of the AMAs that population growth would lead to land use change patterns, including more dense population centers and conversion of private agricultural land and state trust land to private residential and commercial land.

Proposed Action

Under the Proposed Action, there would be no impacts on land ownership within the Phoenix, Pinal, and Tucson AMAs. The Proposed Recipients would receive their allocations of water from the CAP, which could result in some minor changes to land use due to reduced groundwater pumping within the project area. Similar to the No Action Alternative, development of private land for residential and commercial use would continue, as would the requirements for an assured water supply.

3.3.3 Cumulative Effects

All recipients could use existing infrastructure to receive the new allocation. For recipients who propose infrastructure in the future to receive or use the NIA Priority CAP Water reallocation, but do not currently have specific plans (see Table 6 in Section 3.6.1), no attempt has been made in this EA to quantify potential impacts from construction and operation of these new facilities, their location, and the resulting land disturbance that would occur; because those specifics are unknown at this time, and the Proposed Recipients have the option to recharge their allocation through ADWR's Underground Water Storage, Savings & Replenishment Program using existing infrastructure.

As discussed in Section 3.2.1, the demands for water across the AMAs are changing from agricultural uses to residential, commercial, and industrial uses. The Proposed Action, taken together with increased population demanding more water, would have a cumulative impact on land use patterns. Agricultural water demand is decreasing across the AMAs, while residential and commercial water demand has been increasing in past years, and will continue to increase. The Proposed Action and CAP water projects described in Section 3.2.1 would provide water that would be used either directly for consumption or to reduce the dependence on groundwater for municipal, residential, commercial, and industrial development. A secure source of renewable water would accommodate economic development, which would likely result in changes to land use patterns and changes to land ownership within the AMAs. Agricultural lands may be converted to municipal, commercial, and industrial lands. State trust lands may be converted to private ownership for development under specific circumstances.

Final EA Chapter 3. Affected Environment and Environmental Consequences

During periods of shortages on the Colorado River, the Proposed Recipients may not receive all or part of the NIA Priority CAP water due to the low priority of the water within the CAWCD pool structure. This could result in impacts on where and how land is used for development, and could affect the types of development and changes in land use patterns. Projected future conditions as a result of climate change would require increased implementation of water conservation measures and increased use of water recycling/reuse programs, which would impact the rate and extent of land use changes and development.

3.4 Biological Resources

The analysis area for impacts on biological resources includes the three AMAs where the Proposed Recipients are located: Phoenix, Pinal, and Tucson. The AMAs overlap large portions of Maricopa, Pima, and Pinal Counties.

3.4.1 Affected Environment

Vegetation/Wetlands

The analysis area contains seven biotic communities – Lower Colorado River Valley Sonoran Desertscrub, Arizona Upland Sonoran Desertscrub, Interior Chaparral, Semidesert Grassland, Madrean Evergreen Woodland, Petran Montane Conifer Forest, and Great Basin Conifer Woodland (Hendricks 1985, Brown 1994, Brown and Brennan 2007, Northern Arizona University 2016). In addition, there are extensive disturbed areas, which are areas that were altered by human activity, such as areas cleared of native vegetation for development or agricultural purposes. Although not a biotic community shown on the Brown 1994 biotic community map (Figure 2), Riparian Deciduous Forests are important because they provide valuable wildlife habitat.

Lower Colorado River Valley Sonoran Desertscrub. Lower Colorado River Valley Sonoran Desertscrub, along with Arizona Upland Sonoran Desertscrub, is the most widespread biotic community in the analysis area. The dominant vegetation community consists of the creosote-cacti association, which is common in sandy or gravelly soils (desert pavement) at lower elevations. Common vegetation species include creosote bush (*Larrea tridentata*), burrobush (*Ambrosia dumosa*), various chollas (*Cylindropuntia* spp.), saguaro (*Carnegiea gigantea*), barrel cactus (*Ferocactus acanthodes*), prickly pear (*Opuntia* spp.), cattle saltbrush (*Atriplex polycarpa*), and ironwood (*Olneya tesota*).

Arizona Upland Sonoran Desertscrub. Arizona Upland Sonoran Desertscrub occurs in higher uplands and foothills. This biotic community generally occurs around the northern, eastern, and southern periphery of the Lower Colorado River Valley Sonoran Desertscrub biotic community. Trees and shrubs tend to occur at a higher frequency in these higher elevations. Common species include yellow paloverde (*Parkinsonia microphylla*), fairy duster (*Calliandra eriophylla*), catclaw acacia (*Senegalia greggii*), ocotillo (*Fouquieria splendens*), and honey

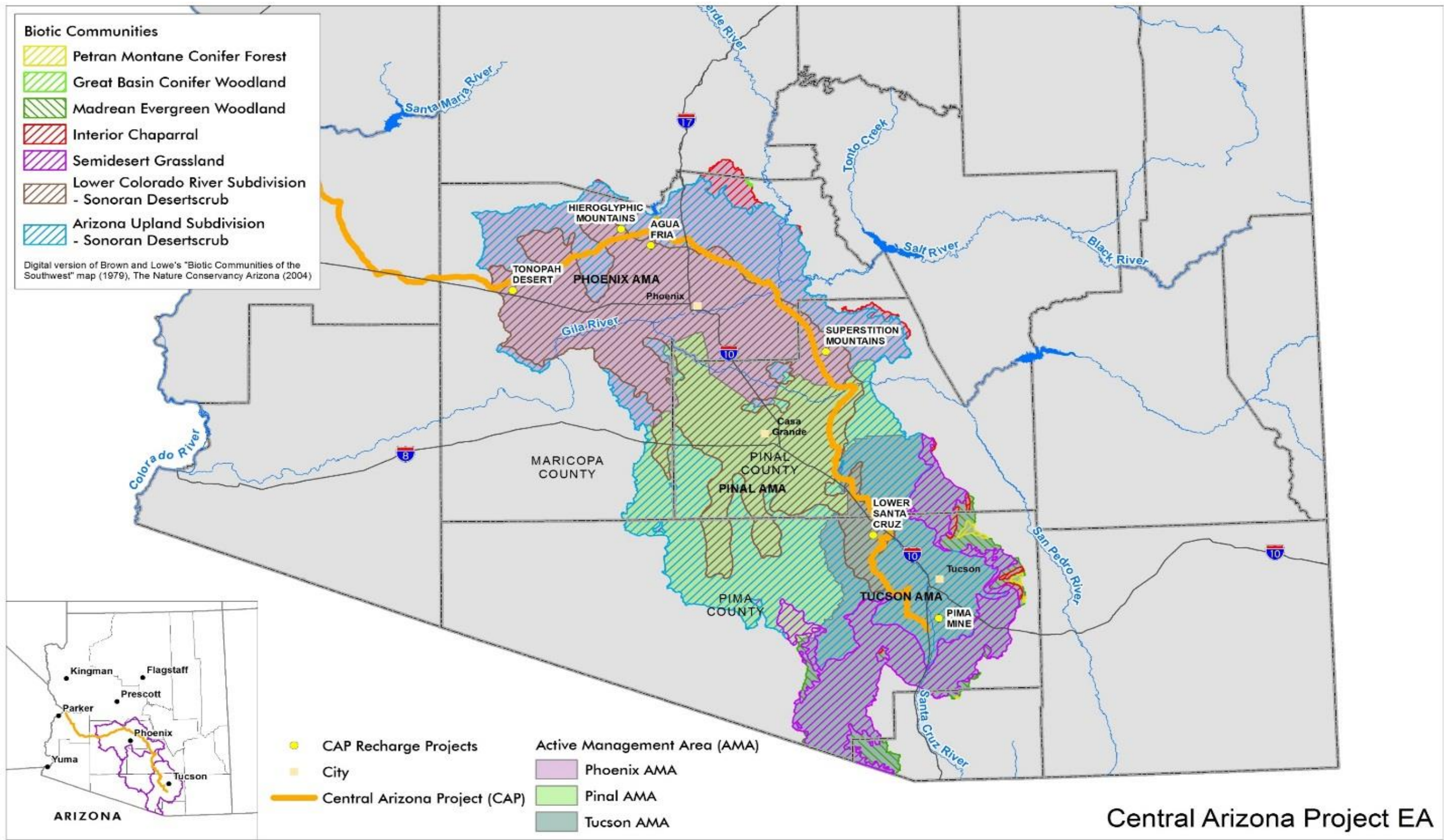
Final EA Chapter 3. Affected Environment and Environmental Consequences

mesquite (*Prosopis glandulosa*). Several different cacti occur in this biotic community including saguaro, teddybear cholla (*Cylindropuntia bigelovii*), buckhorn cholla (*C. acanthocarpa*), jumping cholla (*C. fulgida*), various barrel cacti (*Ferocactus* spp.), and a variety of prickly pears.

Interior Chaparral. Interior Chaparral is a dense shrubland community forming the transition zone between Arizona Upland Sonoran Desertscrub and the coniferous Mogollon Rim, north and east of Phoenix. Common species in this region include Sonoran scrub oak (*Quercus turbinella*), pointleaf manzanita (*Arctostaphylos pungens*), buckthorn (*Rhamnus crocea*), alligator juniper (*Juniperis deppeana*), sugar sumac (*Rhus ovata*), and Arizona cypress (*Hesperocyparis arizonica*).

Semidesert Grassland. The Semidesert Grassland biotic community is most prominent in the southern and eastern sections of the Tucson AMA. This biotic community is a transition area between the Sonoran and Chihuahuan Deserts. Drought-tolerant grasses include sideoats grama (*Bouteloua curtipendula*), black grama (*B. eriopoda*), tobosagrass (*Pleuraphis mutica*), woollygrass (*Dasyochloa pulchella*), and threeawn (*Aristida* spp). Common shrubs and cacti include creosote bush, mesquite, catclaw mimosa (*Mimosa aculeaticarpa*), graythorn (*Ziziphus obtusifolia*), sotols (*Dasyilirion* spp.), and several prickly pear variations.

Figure 2. Biotic Community Map.



Final EA Chapter 3. Affected Environment and Environmental Consequences

Madrean Evergreen Woodland. The Madrean Evergreen Woodland biotic community occurs in the southeastern portion of the state in the mountain areas of the Tucson AMA. The elevation of this community ranges between 4,000 and 7,000 feet above sea level (Hendricks 1985). A mixture of evergreen oak including Mexican blue-oak (*Quercus oblongifolia*) and Emory oak (*Q. emoryi*) occur at the lower elevations of this biotic community, whereas various pines including Mexican pinyon (*Pinus cembroides*), Apache pine (*P. engelmannii*), and Chihuahuan pine (*P. leiophylla*) become more common in higher elevations. Other common tree and shrub species include Arizona white oak (*Quercus arizonica*), mountain mahogany (*Cercocarpus montanus*), Arizona madrone (*Arbutus arizonica*), Mexican cliffrose (*Purshia mexicana*), and skunkbrush (*Rhus trilobata*). Other common plants include prickly pear, Parry's agave (*Agave parryi*), little bluestem (*Schizachyrium scoparium*), blue grama (*Bouteloua gracilis*), and sideoats grama.

Petran Montane Conifer Forest and Great Basin Conifer Forest. These two biotic communities are very limited within the AMAs – the former occurs on the eastern edge of the Tucson AMA and the latter on the northeastern edge of the Phoenix AMA (Figure 2). Petran Montane Conifer Forests are mixed conifer and ponderosa pine (*Pinus ponderosa*) forests, and Great Basin Conifer Forests consist of pinyon pine (*Pinus edulis*) and juniper (*Juniperus* spp.) trees.

Riparian Deciduous Forests. In the analysis area, vegetation along the rivers, including the Santa Cruz, Verde, and Salt (which form the Gila River), and their floodplains would be classified as Riparian Deciduous Forests. Dominant species in the riparian woodland community type include Fremont cottonwood (*Populus fremontii*), Goodding's willow (*Salix gooddingii*), velvet ash (*Fraxinus velutina*), velvet mesquite (*Prosopis velutina*), salt cedar (*Tamarix ramosissima*), and seepwillow (*Baccharis salicifolia*). Dominant wetland plant species include cattail (*Typha* spp.), horsetail (*Equisetum* spp.), bulrush (*Schoenoplectus* spp.), rush (*Juncus* spp.), spikerush (*Eleocharis* spp.), and sedge (*Carex* spp.).

Disturbed Areas. Disturbed lands include areas that have been cleared of native vegetation as a result of human activity. Developed areas, such as commercial, industrial, and residential development, roads, or agricultural lands are classified as disturbed areas.

Wildlife

The analysis area provides habitat for a variety of terrestrial wildlife species typical of the Sonoran Desertscrub, Semidesert Grasslands and riparian habitats in Arizona, as described in Brown 1994. Multiple rivers and creeks provide habitat for a variety of native and nonnative fish species.

Terrestrial Wildlife. The AMAs provide habitat for numerous bird species including cactus wren (*Campylorhynchus brunneicapillus*), curve-billed thrasher (*Toxostoma curvirostre*), Gila woodpecker (*Melanerpes uropygialis*), mourning dove (*Zenaida macroura*), Harris' hawk

Final EA Chapter 3. Affected Environment and Environmental Consequences

(*Parabuteo unicinctus*), red-tailed hawk (*Buteo jamaicensis*), black-throated sparrow (*Amphispiza bilineata*), and roadrunner (*Geococcyx californianus*).

Large mammals typically present in Sonoran Desertscrub and riparian habitats include mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), and javelina (*Pecari tajacu*). Typical small mammal species include black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), white-throated woodrat (*Neotoma albigula*), kangaroo rat (*Dipodomys* spp.), cactus deer mouse (*Peromyscus eremicus*), California leaf-nosed bat (*Macrotis californicus*), and California myotis (*Myotis californicus*). Furbearing species such as beaver (*Castor canadensis*) and raccoon (*Procyon lotor*) occur in riparian areas. The AMAs also provide habitat for a variety of reptiles, such as desert iguana (*Dipsosaurus dorsalis*), tiger whiptail (*Aspidoscelis tigris*), western diamond-backed rattlesnake (*Crotalus atrox*), banded gecko (*Coleonyx variegatus*), Gila monster (*Heloderma suspectum*), and chuckwalla (*Sauromalus ater*).

Aquatic Wildlife. A variety of native and introduced fish species occur in the rivers and creeks within the AMAs. The Tucson AMA contains the perennial Romero Canyon, Sabino Canyon, Cienega Creek, and Sycamore Canyon. Intermittent streams are the Santa Cruz River, Pantano Wash, Rillito Creek, and Sabino Creek. The Phoenix AMA contains the perennial Verde River, intermittent and perennial portions of the Gila and Salt Rivers, the Agua Fria River, and the Hassayampa River; as well as tributaries of these rivers including Skunk Creek, Cave Creek, New River, Waterman Wash, Centennial Wash, and Queen Creek. The Pinal AMA contains the intermittent Gila River, Santa Cruz River, Aguirre Wash, and Santa Rosa Wash. Excluding threatened and endangered species, which are discussed in the next section, common native fish species include desert sucker (*Catostomus clarki*), Gila longfin dace (*Agosia chrysogaster chrysogaster*), and Sonora sucker (*Catostomus insignis*) (AGFD 2016a). Some nonnative species include bluegill (*Lepomis macrochirus*), channel catfish (*Ictalurus punctatus*), common carp (*Cyprinus carpio*), green sunfish (*Lepomis cyanellus*), and largemouth bass (*Micropterus salmoides*).

Threatened and Endangered Species

Table 5 contains the federally listed species (listed species) and designated and proposed critical habitat identified by the FWS as potentially occurring in the Phoenix, Pinal, and Tucson AMAs. The boundaries of the three AMAs were uploaded to AGFD's Online Environmental Review Tool to review Heritage Data Management System (HDMS) species data and potential habitat models. This environmental review, in conjunction with species habitat and distribution descriptions (FWS 2018a; AGFD 2016a), was used to identify which species have potential to occur in the three AMAs (Table 5).

Final EA Chapter 3. Affected Environment and Environmental Consequences

TABLE 5. FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES, DESIGNATED OR PROPOSED CRITICAL HABITATS, WITHIN PHOENIX, PINAL, AND TUCSON AMAS, IN ARIZONA.

Common Name (Scientific Name)	Federal Status Critical Habitat by AMA	Habitat	Potential to Occur in Analysis area by AMA*
MAMMALS			
Jaguar (<i>Panthera onca</i>)	Endangered Critical Habitat (CH)-Pinal and Tucson	Lowland wet habitats and oak- pine woodlands.	Pinal and Tucson
Ocelot (<i>Leopardus pardalis</i>)	Endangered	Subtropical thorn forest, thorn scrub and dense brushy thickets, riparian bottomland, below 4,000 feet.	Phoenix and Tucson
Sonoran pronghorn (<i>Antilocapra americana sonoriensis</i>)	Endangered	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations.	Phoenix and Tucson
BIRDS			
California least tern (<i>Sterna antillarum brown</i>)	Endangered	Open, bare, or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems; known from Highway 101 ponds near Glendale, Arizona.	Phoenix ¹ and Tucson
Masked bobwhite (quail) (<i>Colinus virginianus ridgwayi</i>)	Endangered	Broad valley desert grasslands, 3,090 to 3,720 feet.	Tucson
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Threatened CH-Tucson	Nests in canyons and dense conifer forests with multi- layered foliage structure.	Phoenix, Pinal, and Tucson
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered CH-Phoenix and Pinal	Cottonwood/willow and tamarisk vegetation communities along rivers and streams.	Phoenix, Pinal, and Tucson

Final EA Chapter 3. Affected Environment and Environmental Consequences

Common Name (Scientific Name)	Federal Status Critical Habitat by AMA	Habitat	Potential to Occur in Analysis area by AMA*
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened Proposed CH- Phoenix, Pinal, and Tucson	Nests in multistoried riparian habitat, willow, cottonwood, and sometimes salt cedar.	Phoenix, Pinal, and Tucson
Yuma clapper rail (<i>Rallus longirostris yumanensis</i>)	Endangered	Fresh water and brackish marshes with dense emergent vegetation.	Phoenix, Pinal, and Tucson ²
FISH			
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	Experimental, Non-Essential Population	Experimental, nonessential populations have been introduced in the Salt and Verde Rivers; occur in turbid, deep, strongly flowing waters.	Phoenix ¹
Desert pupfish (<i>Cyprinodon macularius</i>)	Endangered	Shallow springs, small streams, and marshes; tolerates saline and warm water; found below 5,000 feet.	Phoenix, Pinal, and Tucson
Gila chub (<i>Gila intermedia</i>)	Endangered CH-Phoenix and Tucson	Smaller headwater streams, cienegas, and springs/marshes of the Gila River basin.	Phoenix, Pinal, and Tucson
Gila topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	Small streams, springs, cienegas, and vegetated shallows; found below 4,500 feet.	Phoenix, Pinal ¹ , and Tucson
Razorback sucker (<i>Xyrauchen texanus</i>)	Endangered CH-Phoenix	Riverine and lacustrine areas, generally not in fast-moving water; may use backwaters.	Phoenix ¹
Sonora chub (<i>Gila ditaenia</i>)	Threatened CH-Tucson	Large, deep, and permanent pools in Sycamore Creek.	Tucson
Woundfin (<i>Plagopterus argentissimus</i>)	Experimental, Non-Essential Population	Shallow, warm, turbid, fast- flowing water; tolerates high salinity.	Historically Phoenix ¹

Final EA Chapter 3. Affected Environment and Environmental Consequences

Common Name (Scientific Name)	Federal Status Critical Habitat by AMA	Habitat	Potential to Occur in Analysis area by AMA*
AMPHIBIANS AND REPTILES			
Chiricahua leopard frog (<i>Rana chiricahuensis</i>)	Threatened CH-Tucson	Streams, rivers, backwaters, ponds, or stock tanks; between 3,300 to 8,900 feet.	Phoenix, Pinal ¹ , and Tucson
Northern Mexican gartersnake (<i>Thamnophis eques megalops</i>)	Threatened Proposed CH-Phoenix and Tucson	Ponds and cienegas, lowland river riparian forests and woodlands, or upland stream gallery forests.	Phoenix, Pinal ¹ , and Tucson
Sonoyta mud turtle (<i>Kinosternon sonoriense longifemorale</i>)	Endangered	Pond and stream habitats, and Quitobaquito Springs in Organ Pipe Cactus National Monument.	Tucson
PLANTS			
Acuna cactus (<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>)	Endangered Proposed CH-Phoenix and Pinal	Low gravelly hills, bajadas, rocky knolls; between 1,200 to 3,375 feet.	Phoenix ¹ , Pinal, and Tucson ¹
Arizona cliff-rose (<i>Purshia subintegra</i>)	Endangered	Rolling, rocky limestone hills and slopes; between 2,120 to 4,000 feet.	Phoenix ¹
Arizona hedgehog cactus (<i>Echinocereus triglochidiatus</i> var. <i>arizonicus</i>)	Endangered	Rugged steep-walled canyons, boulder-pile ridges and slopes; grows in open areas, narrow cracks between boulders, and in understory of shrubs; between 3,300 to 5,700 feet.	Phoenix and Pinal ¹
Huachuca water-umbel (<i>Lilaeopsis schaffneriana</i> var. <i>recurve</i>)	Endangered	Cienegas or marshy wetlands within Sonoran desertscrub, grassland or oak woodland, and conifer forests; between 2,000 to 6,000 feet.	Tucson
Kearney's blue-star (<i>Amsonia kearneyana</i>)	Endangered	Canyon bottoms and sides in oak woodlands; between 3,685 to 4,500 feet.	Tucson

Final EA Chapter 3. Affected Environment and Environmental Consequences

Common Name (Scientific Name)	Federal Status Critical Habitat by AMA	Habitat	Potential to Occur in Analysis area by AMA*
Nichol's turk's head cactus (<i>Echinocactus horizonthalonius</i> var. <i>nicholii</i>)	Endangered	Open vegetation, gravelly bajadas with limestone clasts at lower elevations; between 2,000 to 3,600 feet.	Pinal and Tucson
Pima pineapple cactus (<i>Coryphantha scheeri</i> var. <i>robustispina</i>)	Endangered	Ridges in semidesert grassland and alluvial fans in Sonoran desertscrub; between 2,300 to 5,000 feet.	Pinal and Tucson

*Potential to occur within an AMA was determined from FWS Information for Planning and Conservation (IPaC) (FWS 2018a) or species information (FWS 2018b), AGFD online review, HDMS data within 3 miles of the analysis area (AGFD 2016b), and AGFD species abstracts and distribution (AGFD 2016a).

¹Potential to occur in an AMA based on FWS IPaC list (FWS 2018a) or species information (FWS 2018b); no AGFD HDMS records within 3 miles of the analysis area.

²Potential to occur in an AMA based on AGFD online review, predicted species range models (AGFD 2016b).

3.4.2 Environmental Consequences

No Action Alternative

Under the No Action alternative, the Secretary would reject the allocation recommendation (i.e., the Proposed Action). Therefore, the No Action alternative for this NEPA analysis reflects an indeterminate delay in the allocation process and, until a future reallocation is approved by the Secretary, no reallocation would occur. Many of the Proposed Recipients would continue to pump groundwater for their water needs. Groundwater pumping may affect biological resources by depleting aquifers, resulting in altered streamflow and altered water availability to groundwater-related vegetation along streams and creeks (Fonseca 2008). Many threatened, endangered, and sensitive species rely on wetland and riparian vegetation for food, shelter, and reproduction. Increases in the depth to groundwater could eventually result in a shift to upland vegetation and loss of riparian and wetland habitat (Fonseca 2008).

Proposed Action

Vegetation/Wetlands

The Proposed Action may result in direct beneficial impacts to vegetation due to reduced groundwater use. Potential indirect impacts of the Proposed Action may include loss of upland Sonoran desertscrub vegetation from residential land development and subsequent land clearing activities within the municipalities. Development could occur in ephemeral drainages, however,

Final EA Chapter 3. Affected Environment and Environmental Consequences

Proposed Recipients are subject to state and federal laws protecting wetlands and waterways, such as Section 401, 402, and 404 of the Clean Water Act. Attempts to quantify impacts from additional development, such as impacts on vegetation that may result from land clearing and construction equipment, is speculative at this time. Potential loss of vegetation or wetlands from installation of new water facilities (e.g., treatment plants or pipelines) are also impossible to quantify, since the need for new facilities and their number or location have not been identified.

There could be an indirect change in riparian habitat through ground disturbance and vegetation clearing if infrastructure developments are needed, but it is currently not possible to quantify these impacts. The Proposed Reallocation would not alter flows of existing surface waters within the AMAs.

Wildlife

Terrestrial Wildlife. Housing and industrial developments are currently underway by the Proposed Recipients and would not be dependent on the Proposed Action to continue, but would indirectly remove wildlife habitat through conversion to residential and urban environments. Potential indirect impacts on wildlife habitat from installation of any new water infrastructure are impossible to quantify, since the specific locations of potential pipelines or USFs have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal or tribal laws and regulations.

Aquatic Wildlife. The Proposed Action would not alter stream flows or surface water quality within the AMAs that might affect habitat for fish and other aquatic wildlife. Therefore, there would be no substantial changes to diversity of river habitat, depth of pools, existence of shallow riffles, or backwater areas that provide aquatic wildlife habitat. No changes in the distribution or abundance of native or nonnative fish are expected from the Proposed Action. The distribution of nonnative fish within local streams, transferred inadvertently through CAP water and within the CAP aqueduct, continues to be monitored by AGFD, Arizona State University (ASU), and Reclamation.

Threatened and Endangered Species

Under Section 7 of the ESA, any proposed action with a federal nexus that may result in an effect (positive or negative) on federally listed or proposed species would require consultation. Potential indirect disturbance or habitat effects for listed species from proposed infrastructure in the future to receive or use the NIA Priority CAP water reallocation (e.g., treatment plants or pipelines) are impossible to quantify in this analysis, since the specific locations have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA. Therefore, any proposal to take and use the reallocated water by the Proposed Recipients would be analyzed under a separate NEPA analysis to ensure effects on listed species are addressed. Land development that is currently unknown would be subject to

Final EA Chapter 3. Affected Environment and Environmental Consequences

Section 10 of the ESA, which regulates take of listed species by non-federal actions, if no federal nexus exists. Without conceptual plans and/or locations of potential future developments, determining effects on listed species from unknown new developments is not currently possible. Table 5 in Section 3.4.1 provides the potential listed species and designated critical habitats present within each AMA.

CAP water diversion from the Colorado River system, where at least 27 threatened, endangered, candidate, and proposed species rely on the river for survival, was previously consulted on with the FWS. FWS issued a Biological and Conference Opinion in 2008 analyzing effects on listed species from storage, delivery, and diversion of water within the Lower Colorado River; new impacts from use of the CAP water would not occur from the Proposed Action (FWS 2008). All recipients could use existing infrastructure to receive the new allocation; therefore, no effect on listed species would occur. Potential effects on listed species would be required as part of subcontract agreements with Reclamation.

3.4.3 Cumulative Effects

Past, present, and reasonably foreseeable future actions and scenarios described in Section 3.2, in combination with the Proposed Action, would result in cumulative effects on biological resources. The broad cumulative effects include increased human water demands in the Phoenix and Tucson AMAs, with a reduced demand in the Pinal AMA; increased human population centers and conversion of agricultural and rural land uses to residential in all three AMAs; and, a decline in agricultural land uses in all three AMAs. Water will likely become increasingly scarce, especially when designated for wildlife benefit versus human development, and management decisions will need to consider what priority wildlife is given in the distribution of water. Groundwater pumping from wells and recharge of water would mostly occur within the same subbasin, yet not always (Table 6).

The drawdown of shallow groundwater aquifers could result in localized loss of riparian and wetland vegetation and wildlife dependent on these habitats, though without specific development locations, this loss cannot be quantified. Proposed Recipients located adjacent to or close to (within 5 miles of) perennial waters with riparian habitat include: The City of Buckeye and Johnson Utilities north of the Gila River; the City of El Mirage and EPCOR – Sun City West, west of the Agua Fria River; SRP and the Phoenix metro area, bisected by the Salt River; the Town of Marana and Freeport-McMoran Sierrita Mine adjacent to the Santa Cruz River; and, Resolution Copper Mine adjacent to Queen Creek. This effect may be greatest in the Tucson AMA, along the Santa Cruz River. Within the Tucson AMA, shallow groundwater exists and groundwater-dependent riparian habitats occur (Fonseca 2008). In addition, water may be recharged into different subbasins than where the water is withdrawn (AGFD 2016c) resulting in greater impacts where the water is not recharged. CAP water may be initially recharged into different subbasins within the Tucson AMA. The use of CAP water to offset groundwater pumping under the Proposed Action, and other CAP water projects, would help slow the drawdown of aquifers locally.

Final EA Chapter 3. Affected Environment and Environmental Consequences

The Portalis subdivision totals 7,700 acres within the Lower Colorado River subdivision of Sonoran desertscrub. The Diablo Village totals 1,609 acres and occurs in Arizona upland subdivision of Sonoran desertscrub. Vegetation communities will be converted to residential housing, streets, sidewalks, and private yards; however, any new ground disturbance related to the Portalis and Diablo Village developments would occur regardless of potentially receiving the NIA CAP water allocation.

Projected increases in drought, wildfire, invasive species, pests, and changes in species' geographic ranges would increase threats to native forests and ecosystems in the Southwest. Warmer, drier conditions, combined with the accumulation of dead trees and other fuel, have contributed to an increase in the size of wildfires in recent decades, resulting in the transformation of ecosystems. In the AMAs, the likely result would be loss of habitat, an increase in invasive species and pests, and increased risk of fire, though it is difficult to determine how soon these effects would occur.

Climate change would likely stress groundwater-based systems and result in decreased groundwater recharge. A reliable water supply is crucial for sustaining ecosystems in this dry region. Increased water demand and reduced water supplies would add new stresses to already strained water resources. The Proposed Reallocation of NIA Priority CAP water to the Proposed Recipients that intend to recharge the water under the Recharge Program to develop LTSC, would help mitigate future water shortages from climate change.

3.5 Cultural Resources

The analysis area for impacts on cultural resources includes the conveyance system and all associated facilities for the CAP project within the three AMAs in which the Proposed Recipients are located: Phoenix, Pinal, and Tucson. The AMAs overlap large portions of Maricopa, Pima, and Pinal Counties.

3.5.1 Affected Environment

Project Research

Previous cultural surveys and mitigation projects for the CAP have been extensive. Identification and mitigation of cultural resources were completed under multiple environmental impact statements prior to the construction of the CAP (Reclamation 1974, 1979, 1982, 1985). Cultural resource studies associated with the CAP began in 1968, when Reclamation provided funds for surveys to the NPS. The NPS divided the entire proposed aqueduct alignment (consisting of the Granite Reef Aqueduct, the Salt-Gila Aqueduct, and the Tucson Aqueduct) into three relatively equidistant segments and awarded survey work to Prescott College, ASU, and Arizona State Museum (ASM). Surveys also included proposed reservoir locations.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Additional resurveys (also routed through the NPS) of the aqueduct alignments were conducted by ASM, ASU, and the Nevada Archaeological Survey at the University of Nevada, Las Vegas in the early 1970s (Rogge 1983). Mitigation of significant sites and surveys of the Orme and Buttes Reservoirs also began at that time. Mitigation of significant sites began in earnest in the late 1970s and early 1980s. Data recovery projects continued into the 1990s. Although some Indian distribution systems either are under construction or remain in the planning process, the majority of construction of the aqueduct and associated dams was completed by 1994. Site assessments of cultural resources associated with different phases of the CAP continue. None of the Indian distribution systems are included in the Proposed Action.

As discussed in Section 3.0, for Proposed Recipients that have indicated potential additional infrastructure could be needed to take and use the reallocated water, but do not currently have specific plans (see Table 6 in Section 3.6), no attempt has been made in this EA to quantify potential impacts from ground disturbances that would occur.

3.5.2 Environmental Consequences

No Action Alternative

Under the No Action alternative, the Secretary would reject the allocation recommendation (i.e. the Proposed Action). Proposed Recipients would continue to pump groundwater for their water needs, which would not impact cultural resources within the AMAs. The No Action alternative would have no impact on cultural resources regardless of any delays to the reallocation process. If eligible, a new development could obtain an assured water supply by joining the CAGRD, which would allow the development to occur regardless of any future reallocation process undertaken. Land-disturbing activities from new housing development would follow state and local ordinances regarding cultural resource investigations, if applicable.

Proposed Action

Under the Proposed Action, all recipients could use existing infrastructure to receive the new allocation, but some recipients may construct infrastructure at some point in the future for delivery and storage of CAP water. Environmental clearances for potential construction of the water delivery system to take and use the CAP water (including Section 106) would be completed pursuant to the terms of the CAP subcontract, which states that CAP water will not be delivered to the subcontractor unless, and until, the subcontractor has performed required surveys and mitigation, if necessary, and obtained final environmental clearance from Reclamation.

3.5.3 Cumulative Effects

New ground disturbance related to the Portalis and Diablo Village developments would occur regardless of receiving the NIA CAP water allocation. Similarly, infrastructure that would deliver reallocated CAP NIA-priority water to the three mines is already planned to be constructed for delivery of other water supplies (CAP or otherwise). Where no federal monies are involved, and/or no federal approval or action is required, environmental compliance

Final EA Chapter 3. Affected Environment and Environmental Consequences

associated with NEPA and the National Historic Preservation Act are not required. With regard to Freeport-McMoRan Sierrita, Inc., this infrastructure is being constructed to deliver other CAP water that has been leased by Freeport-McMoRan Sierrita from the Gila River Indian Community. Due to Reclamation's involvement in the leased CAP water, an Environmental Assessment and FONSI were prepared for this water delivery system in December 2018.

For ongoing construction of developments in the project area where the location and approximate disturbance areas are known, Diablo Village and Portalis, a Class I literature review was conducted at the ASM (ERO 2017) to identify previous project and known cultural resources within the project areas. The Class I literature review demonstrates that almost all of the Diablo Village area has been previously surveyed, with the exception of approximately 173 acres in the southern portion of the area. Thirty-five previous cultural resource projects have been completed in the area and six previously documented cultural resources (sites) were identified. Four prehistoric artifact scatters and two multicomponent sites have been previously recorded. Three of these six sites are considered eligible for inclusion in the National Register of Historic Properties, one is unevaluated, one is ineligible, and one is unknown.

The populations in the AMAs are expected to increase independently of the Proposed Reallocation. Land use is likely to shift from agriculture and grazing uses to residential, commercial, and industrial uses, and therefore, additional ground-clearing activities for development are possible. Cumulative effects on cultural resources have resulted from past land development in the AMAs and also depend on the rate and type of future development in the AMAs, which depends on local development plans and policies. Although the development of Rosemont and Resolution Mines is independent of the Proposed Action, if approved, the mines could potentially impact cultural resources. Cumulative impacts may include loss of surface manifestations of sites through surface collection, and total or partial site destruction. Because of the projected land use shifts, and past and future additional ground-clearing activities, cumulative impacts on cultural resources may occur when the Proposed Action is considered in combination with other reasonably foreseeable actions.

Cultural resources, historic buildings, archaeological sites, and historic landscapes would experience similar effects from climate change as the natural resources that are located in the same area. Cultural resources are individually unique and nonrenewable. Climate change projections indicate these irreplaceable resources would likely be altered, deteriorated, or removed at faster rates than previously observed (NPS 2015).

3.6 Water Resources

For purposes of analyzing water resources, the analysis area is the AMA and subbasin in which the service area for each of the municipal Proposed Recipients and the land areas for each of the industrial Proposed Recipients are located (Figure 3). For recipients proposing to recharge and recover CAP water, the analysis areas are the areas from which they would store and recover.

Final EA Chapter 3. Affected Environment and Environmental Consequences

For example, although Rosemont Mine is located along the southeastern boundary of the Tucson AMA, they would store their allocation in the Tucson AMA, and recover it from a wellfield also located in the Tucson AMA.

For the Proposed Recipient CAGR, the analysis area involves multiple AMAs and subbasins. CAGR uses the following recharge facilities: Aqua Fria, Hieroglyphic Mountains, and Tonopah USFs in the West Salt River Valley Subbasin (WSRV); the Superstition Mountains USF in the ESRV; the Lower Santa Cruz Constructed USF in the Avra Valley Subbasin; and, the Pima Mine Road USF in the Upper Santa Cruz Subbasin. CAGR also could use the following GSFs that are permitted for CAGR storage: New Magma Irrigation and Drainage District (IDD) in the ESRV Subbasin, MSIDD in the Maricopa-Stanfield Subbasin, Queen Creek IDD in the ESRV Subbasin, Tonopah Irrigation District in the WSRV Subbasin, and Kai Farms in the Avra Valley Subbasin. Because of the multiple districts and subbasins, CAGR will be discussed with regard to these subbasins.

3.6.1 Affected Environment

The affected environment is discussed with regard to each AMA and AMA subbasin in which the Proposed Recipients are located. Table 6 summarizes the Proposed Recipients, their Demand and Supply Imbalance (DSI) developed by ADWR, proposed allocation quantity and use, and AMA and subbasin in which the Proposed Recipients are located. Figures 3 through 5 show the location of each Proposed Recipient with regard to the AMAs and AMA subbasins.

Unless otherwise noted, information in this section for each of the AMAs and AMA subbasins was summarized from ADWR 1999a, 1999b, 1999c, and 2010.

Phoenix AMA

The Phoenix AMA is located in central Arizona and covers 5,646 square miles (Figure 3). The Phoenix AMA is in the basin and range physiographic province, which consists of gently sloping alluvial valleys located between north to northwest-trending mountain ranges. Annual precipitation for the AMA averages 7 to 8 inches per year, while the average evapotranspiration rate is about 79 inches per year. Urban and agricultural development is centered in the WSRV Subbasin and ESRV Subbasin. Within the Phoenix AMA, the current distribution of water use is 46 percent by municipalities, 33 percent by agriculture, 12 percent by Native American tribes, and 9 percent by industry (ADWR 2014b). ADWR has prepared and maintains an updated regional groundwater flow model of the Salt River Valley of the Phoenix AMA, which provides a tool for the effective management of water resources within the majority of the AMA subbasins (Freihoefer et al 2009).

Carefree Subbasin

The Carefree Water Company is located in the Carefree Subbasin, which covers about 140 square miles and is located in the northeastern portion of the Phoenix AMA. The Carefree Subbasin is bound to the east by the northernmost McDowell Mountains, to the north by a

Final EA Chapter 3. Affected Environment and Environmental Consequences

mountainous area southwest of New River Mesa, and to the south and west by low-lying hills including Black Mountain. The CAP canal does not flow through the Carefree Subbasin. The aquifers in the subbasin are relatively shallow and unproductive.

Mountain-front recharge is the primary source of recharge in the subbasin and groundwater flow is generally to the west-southwest into the ESRV Subbasin. The estimated groundwater storage was determined in 1994 to be 570,000 AFA to a depth of 1,200 feet below land surface (bls). Depth to groundwater in 1998 ranged from less than 30 feet bls near Cave Creek to more than 390 feet bls in the eastern portion of the subbasin. Due to groundwater pumping, groundwater levels began declining in the 1960s with declines exceeding 10 feet per year. Since the early 1990s, groundwater levels began to stabilize, and then increase, with increased use of CAP water in lieu of groundwater pumping. A groundwater cone of depression (a depression in the groundwater table roughly conical in shape, produced in a water table by the extraction of groundwater) occurs near the Town of Cave Creek, which draws in groundwater from the northwest and southeast.

East Salt River Valley Subbasin

The Proposed Recipients in the ESRV Subbasin of the Phoenix AMA are the Town of Cave Creek, Apache Junction WUCFD, CAGRD, Town of Gilbert, Town of Queen Creek, Viewpoint RV and Golf Resort, Salt River Project, Resolution Copper Mine, and Johnson Utilities. The ESRV Subbasin is the eastern subbasin of the AMA and is about 1,710 square miles. The CAP canal flows through the ESRV Subbasin from north to southeast.

Final EA Chapter 3. Affected Environment and Environmental Consequences

TABLE 6. PROPOSED RECIPIENT SUMMARY.

Pool ¹	Proposed Recipient	Proposed Action			Affected Environment				
		Use of Allocation	ADWR-Verified DSI (AFA)	Allocation Recommendation (AFA)	AMA	AMA Subbasin	Has Used Existing Infrastructure to Receive CAP Water?	Storage and Recovery Information	Recovery in Same Subbasin?
M	Apache Junction WUCFD	Direct use for Portalis Project	2,354	817	Phoenix	East Salt River Valley	Yes	NA	NA
M	CAGRD	Recharge at USFs and storage at GSFs	52,359	18,185	Phoenix and Tucson	East and West Salt River Valleys, Avra Valley, Upper Santa Cruz	Yes	Used to partially meet statutory replenishment obligations of Member Lands and Member Service Areas.	Yes
M	Carefree Water Company	Direct use	112	112	Phoenix	Carefree	Yes	NA	NA
M	City of Buckeye	Storage and recovery	8,022	2,786	Phoenix	Hassayampa and West Salt River Valley	Yes	Storage at Tonopah ID GSF, or Tonopah Desert USF, or Hassayampa USF; Recovery with existing recovery wells.	Yes
M	City of El Mirage	Storage and recovery	3,795	1,318	Phoenix	West Salt River Valley	Yes	Storage at Aqua Fria Managed and Constructed USFs, Hieroglyphic Mountains USF, and Tonopah Desert USF; Recovery with existing recovery wells.	Yes
M	EPCOR - Sun City West	Storage and recovery for Sun City West District	4,155	1,000	Phoenix	West Salt River Valley	Yes	Storage at Maricopa Water District GSF; Recovery with wells located in service area.	Yes
M	Johnson Utilities	Storage at GSF and occasional direct use	9,262	3,217	Phoenix and Pinal	East Salt River Valley and Eloy	Yes	Storage in New Magma IDD or Hohokam IDD; Recovery with existing wells.	Yes
M	Metropolitan Domestic Water Improvement District - Diablo	Storage and recovery for Metro SW-Diablo Village to meet demands	299	299	Tucson	Avra Valley	Yes	Storage at Southern Avra Valley USF; Recovery with existing wells.	Yes
M	Town of Cave Creek	Direct use in Dessert Hills Water System	386	386	Phoenix	East Salt River Valley	Yes	NA	NA
M	Town of Gilbert	Direct use	5,274	1,832	Phoenix	East Salt River Valley	Yes	NA	NA
M	Town of Marana	Storage and recovery	1,483	515	Tucson	Avra Valley and Upper Santa Cruz	Yes	Storage at Lower Santa Cruz USF; Recovery with existing wells located within the service area.	Yes
M	Town of Queen Creek	Direct use first, storage and recovery for balance of allocation	15,827 ²	4,162 ²	Phoenix	East Salt River Valley	Yes	Storage at Superstition Mountain Recharge Facility; Recovery with existing production wells located in service area.	Yes
I	Freeport-McMoRan-Sierra Inc.	Storage and recovery	23,098	5,678	Tucson	Upper Santa Cruz	No	Storage in FICO GSF; Recovery with existing mitigation wells.	Yes, upon completion of FICO GSF
I	New Harquahala Generating Company	Direct use	400	400	NA	NA	Yes	NA	NA
I	Resolution Copper Mining	Storage until mine operational	9,106	2,238	Phoenix	East Salt River Valley	Yes	Storage in New Magma IDD, Roosevelt Water Conservation District GSF, Tonopah Desert USF, Hohokam IDD; Recovery with mine wells.	Storage has occurred in several different subbasins with the majority of the storage within the same subbasin at New Magma IDD
I	Rosemont Copper Co.	Storage until mine operational	4,574	1,124	Tucson	Upper Santa Cruz	Yes	Previous storage in Lower Santa Cruz USF and Pima Mine Road USF. Intent is to store water via Community Water Company pipeline in Upper Santa Cruz subbasin; Recovery with mine wells.	Intent to do so but dependent on CWC pipeline and construction of new recharge facility in Green Valley
I	Salt River Project	Direct use and storage and recovery	8,788	2,160	Phoenix	East Salt River Valley	Yes	NA	NA
I	Viewpoint RV and Golf Resort	Direct use for irrigation	400	400	Phoenix	East Salt River Valley	Yes	NA	NA

¹ M = Municipal; I = Industrial.

² Includes H2O Water Company DSI and recommended allocation.

Figure 3. Proposed Recipients within Phoenix AMA.

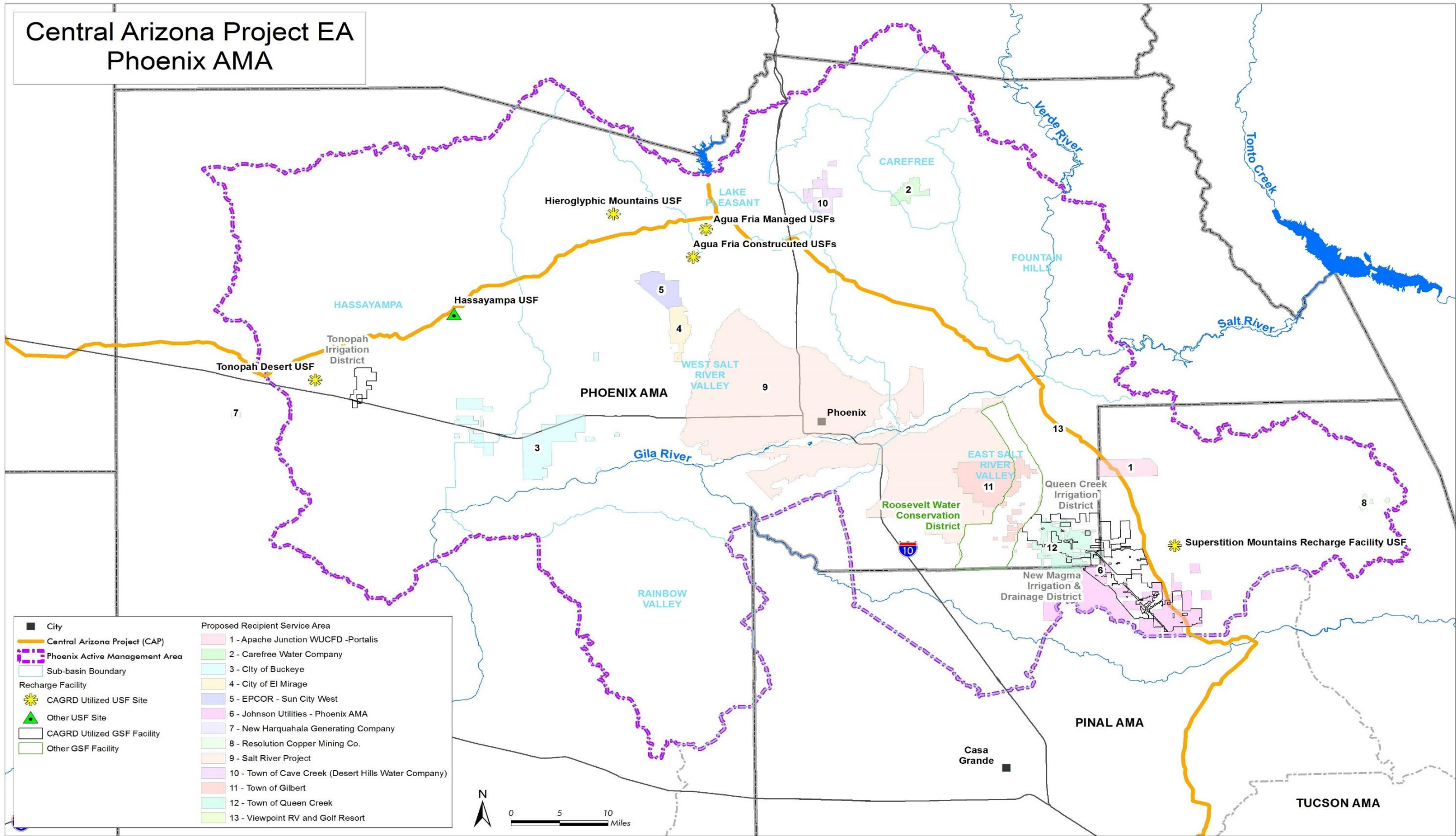


Figure 4. Proposed Recipients within Pinal AMA.

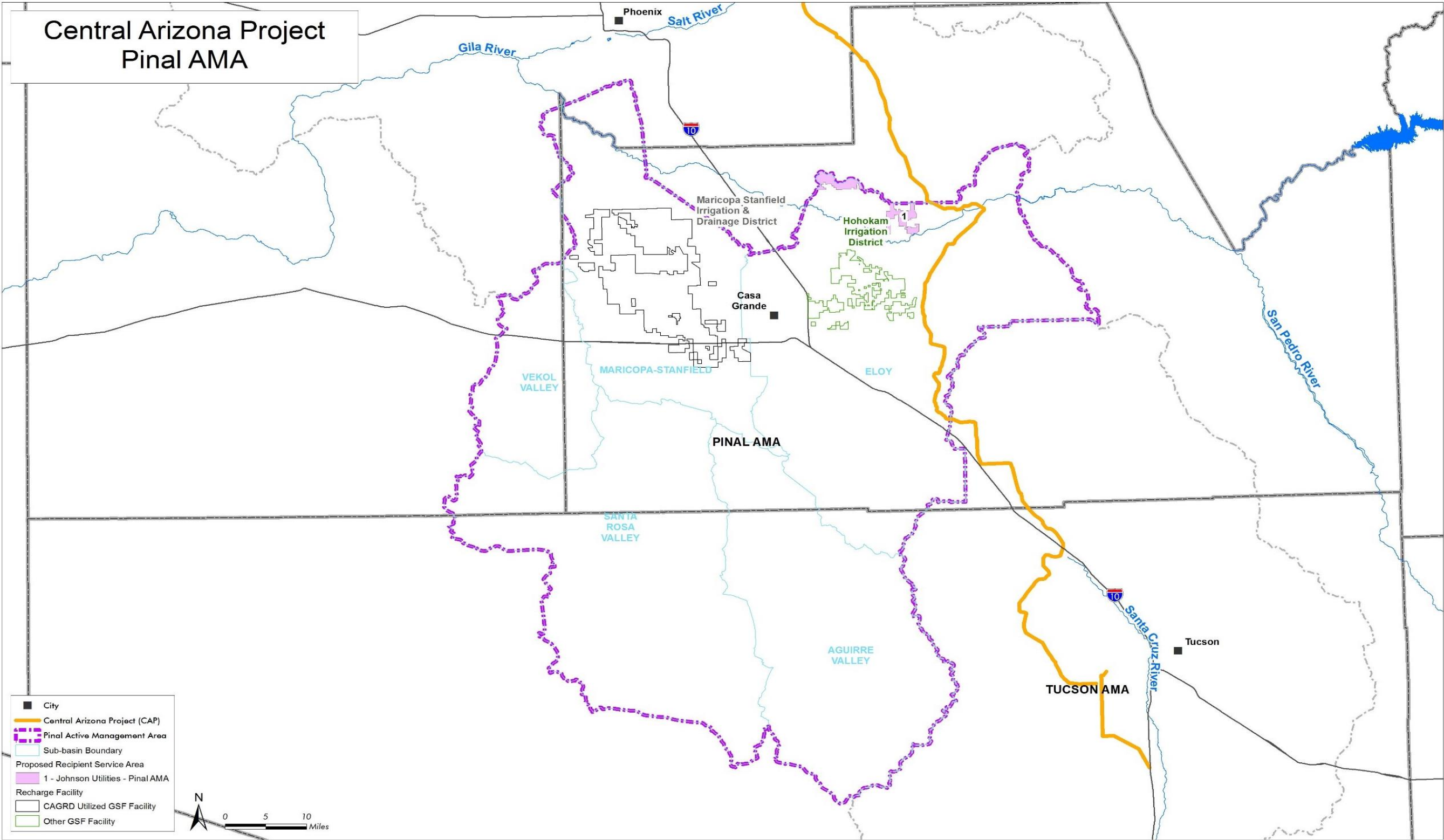
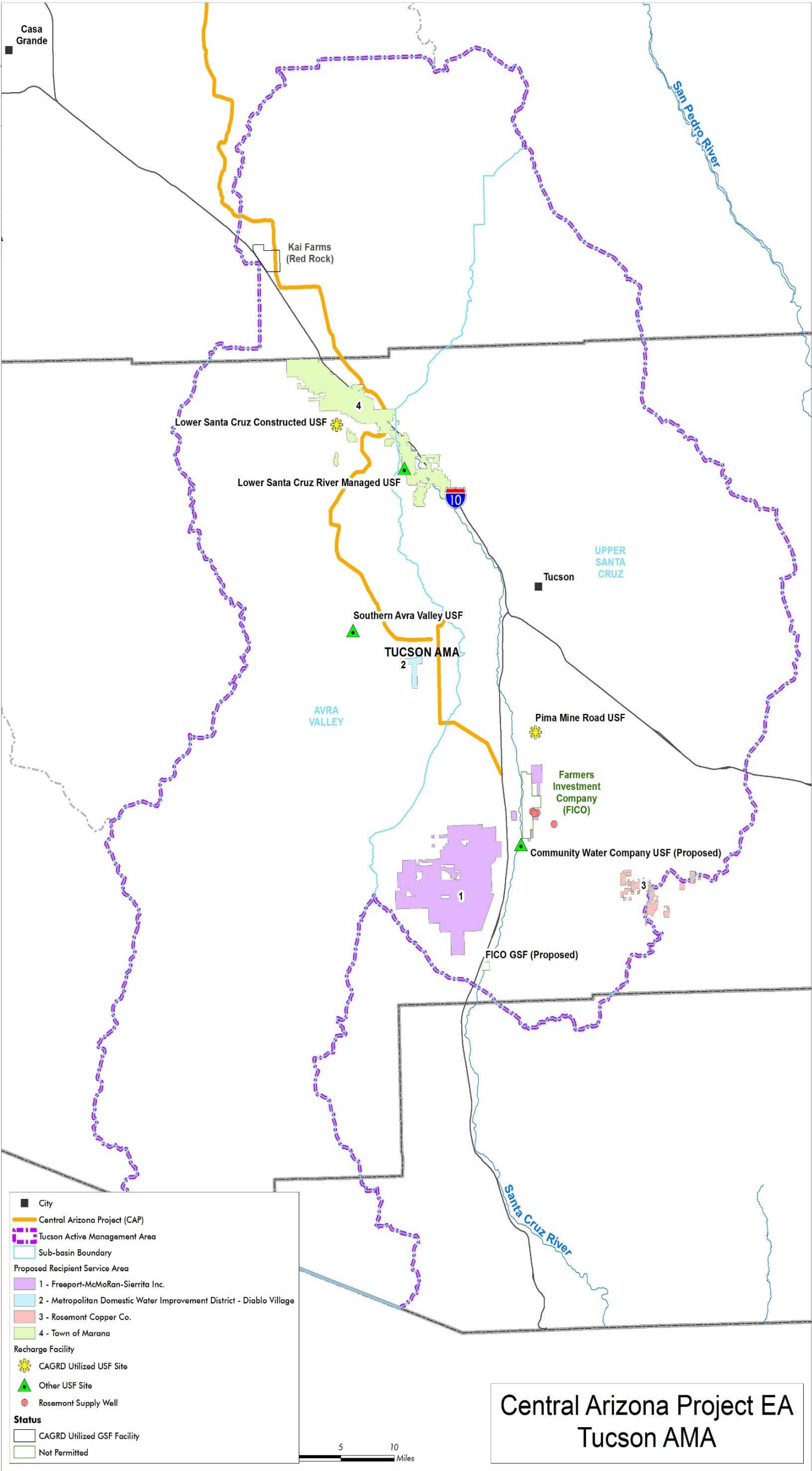


Figure 5. Proposed Recipients within Tucson AMA.



Final EA Chapter 3. Affected Environment and Environmental Consequences

Prior to development of the region, groundwater flowed into the subbasin from the north, south, and southeast and exited the subbasin to the west. Depth to groundwater ranges from 10 feet bls near Superior to 800 feet bls south of Cave Creek, but is highly variable due to three large groundwater cones of depression associated with groundwater pumping beneath Scottsdale, Mesa, and the Santan Mountains. The cones of depression have resulted in groundwater flow directions toward the cones. Earth fissuring (long narrow cracks in the earth) has occurred in the subbasin as a result of localized groundwater pumping near Apache Junction, Queen Creek, North Scottsdale, and Paradise Valley. Although groundwater levels have declined significantly since about 1940, that trend has been reversed recently due to extensive recharge of water to the aquifer; from 1992 to 2002 when groundwater recharge exceeded withdrawal by 2.7 MAFA.

West Salt River Valley Subbasin

The Proposed Recipients in the WSRV Subbasin are CAGR, EPCOR – Sun City West, City of Buckeye, and City of El Mirage. Although part of the Salt River Project service area is located in the WSRV Subbasin, the generating stations where the CAP water would be directly used are located in the ESRV Subbasin. At about 1,330 square miles, the WSRV Subbasin is the second largest in the Phoenix AMA. The subbasin is bounded to the north by the Hieroglyphic Mountains and Hedgpeth Hills; to the east by Union Hills, Phoenix Mountains, and Papago Buttes; to the south by the South Mountains, Estrella Mountains, and Buckeye Hills; and, to the west by the White Tank Mountains. The CAP canal flows through the WSRV Subbasin from west to east through the northern portion of the subbasin. A large underground salt body occurs southeast of Luke Air Force Base (located between the City of Buckeye and the City of El Mirage) at a depth of 880 to more than 6,000 feet bls, which affects groundwater salinity levels.

Groundwater recharge occurs naturally from mountain recharge and from stream recharge, and anthropogenically from irrigation water and effluent discharge. Groundwater enters the WSRV Subbasin from the neighboring Lake Pleasant, the northern Hassayampa ESRV, and Maricopa-Stanfield Subbasins. In 1998, depth to groundwater ranged from less than 50 feet bls near the Salt and Gila Rivers to more than 550 feet bls near Union Hills. Two large groundwater cones of depression within the subbasin control the direction of groundwater flow – one near Luke Air Force Base located near the center of the WSRV Subbasin and one in Deer Valley near Hedgpeth Hills located in the north-central portion of the WSRV Subbasin. Subsidence of up to 17 feet along with earth fissures have occurred in an area of approximately 140 square miles near Luke Air Force Base. Historically, groundwater flow direction was toward and along the Salt and Gila Rivers, and exited the subbasin into the southern portion of the Hassayampa Subbasin.

Hassayampa Subbasin

The Proposed Recipients City of Buckeye and CAGR are located in the Hassayampa Subbasin, and New Harquahala Generating Company is located just to the west. The Hassayampa Subbasin is the westernmost subbasin in the Phoenix AMA and covers approximately 1,200 square miles. The subbasin is bounded on the north by the Vulture and Wickenburg Mountains, on the east by the White Tank Mountains, on the south by the Buckeye Hills and

Final EA Chapter 3. Affected Environment and Environmental Consequences

Gila Bend Mountains, and on the west by the Big Horn and Belmont Mountains and Palo Verde Hills. The CAP canal flows through the Hassayampa Subbasin from west to east.

Depth to groundwater ranges from about 20 feet bls in the southwest portion of the subbasin to more than 600 feet bls in the northern portion. Groundwater enters the subbasin from the northeast and flows south toward the Gila River. Groundwater recharge includes streambed infiltration and mountain front recharge. Groundwater storage north of I-10 is estimated at more than 12 MAFA. Groundwater flows from northeast to southwest toward two groundwater cones of depression – one under Tonopah and one south of Tonopah in the Centennial Wash area. These depressions are a result of groundwater pumping associated with agricultural development beginning in the 1950s.

Pinal AMA

The Pinal AMA covers 4,100 square miles and is south of the Phoenix AMA (Figure 4). The Pinal AMA is in the basin and range physiographic province and consists of gently sloping alluvial valleys located between north to northwest-trending mountain ranges. Within the Pinal AMA, 81 percent of water use is by agriculture, 14 percent by Native American tribes, 3 percent by municipalities, and 2 percent by industry (ADWR 2014b). ADWR has prepared and maintains an updated regional groundwater flow model of the Pinal AMA, which provides a tool for the effective management of water resources within the north two AMA (Liu et al 2014).

Eloy Subbasin

The Proposed Recipient Johnson Utilities' service area is located partially in the ESRV Subbasin of the Phoenix AMA and partially in the Eloy Subbasin of the Pinal AMA. The subbasin is bounded to the east by the Picacho Mountains and to the northwest by the Sacaton Mountains. A groundwater divide separates the Eloy Subbasin and the Maricopa-Stanfield Subbasin to the west. The CAP canal flows into the subbasin from north to south in the northeastern portion of the subbasin. Groundwater flow within the subbasin is generally to the north toward the Gila River into the ESRV Subbasin of the Phoenix AMA.

Historical groundwater use has created a cone of depression in the subbasin along with associated land subsidence. In recent years, groundwater levels have generally increased in the southern portion of the subbasin, but have remained stable or have continued to decline in the northern portion of the subbasin. Depth to groundwater ranges from 532 feet bls in the northeast portion of the subbasin to more than 400 feet bls near Picacho. The estimated groundwater storage is 22.6 MAFA to a depth of 1,000 feet bls.

Maricopa-Stanfield Subbasin

The Proposed Recipient CAGR is permitted to store CAP water in the MSIDD located in the Maricopa-Stanfield Subbasin. The subbasin is bounded to the west by the Top Mountains and to the northeast by the Sacaton Mountains. A groundwater divide separates the Maricopa-Stanfield Subbasin and the Eloy Subbasin to the east. The CAP canal does not flow through the subbasin.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Groundwater flow within the subbasin is generally to the north toward the Gila River and into cones of depression located west of the Towns of Maricopa and Stanfield. In recent years, groundwater levels have generally been recovering and rising due to the use of CAP water in lieu of groundwater pumping. Depth to groundwater ranges from 51 feet bls near the Gila River to more than 600 feet bls near Stanfield. The estimated groundwater storage is 8.6 MAFA to a depth of 1,000 feet bls.

Tucson AMA

The Tucson AMA (Figure 5) covers 3,869 square miles and is east of the Pinal AMA. The Tucson AMA is in the basin and range physiographic province, and consists of gently sloping alluvial valleys located between north to northwest-trending mountain ranges. In the Tucson AMA, municipalities account for 44 percent of water use, 31 percent by agriculture, 18 percent by industry, and 6 percent by Native American tribes (ADWR 2014b).² ADWR has prepared and maintains an updated regional groundwater flow model of the Tucson AMA which provides a tool for the effective management of water resources within the two AMA subbasins (Mason and Hipke 2013).

Avra Valley Subbasin

Proposed Recipients located within the Avra Valley Subbasin are the Town of Marana and the MDWID. The Avra Valley Subbasin is bounded to the east by the Sierrita, Tucson, and Tortolita Mountains, and to the west by the Baboquivari and Silver Bell Mountains. The Avra Valley Subbasin represents the western Tucson AMA subbasin, and is orientated north-south. Groundwater from the Avra Valley Subbasin flows into the Pinal AMA. The CAP canal runs from northwest to southeast through the subbasin.

In 1995, depth to groundwater in the Altar Valley ranged from less than 200 feet bls to more than 700 feet bls, and in the Avra Valley from less than 200 feet bls to more than 500 feet bls. Between 1994-1995 and 2004-2005, groundwater levels rose 30 to 60 feet in the northern portion of the subbasin near the Town of Marana in response to agricultural retirement, use of CAP water in lieu of groundwater pumping, and groundwater recharge activities. In the northern portion of the subbasin, land subsidence has been measured at 1.1 feet (Anderson 1989). In the northern and central portions of the subbasin, the initial decreases in groundwater have stabilized and have begun to recover due to a decrease in agricultural pumpage and recharge from artificial recharge facilities (ADWR 2016b). Groundwater flow is generally from south to north and the estimated storage is 17 to 24 MAFA to a depth of 1,000 feet.

² Totals do not equal 100 percent due to rounding errors.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Upper Santa Cruz Subbasin

The Proposed Recipients located within the Upper Santa Cruz (USC) Subbasin are the Town of Marana, Rosemont Copper Company, and Freeport-McMoRan Sierrita Incorporated. The USC Subbasin is bounded to the east by the Santa Catalina, Rincon, and Santa Rita Mountains, and to the west by the Sierrita, Tucson, and Tortolita Mountains. The USC Subbasin is in the eastern portion of the Tucson AMA and groundwater from the subbasin flows into the Avra Valley Subbasin. The CAP canal enters the subbasin between the Tucson and Sierrita Mountains, and terminates near Green Valley.

Groundwater flow within the subbasin is generally from south to northwest, but extensive pumping in the Tucson Central Wellfield area for municipal water use and the Green Valley/Sahuarita area associated with mining activities have created deflections in the groundwater flow direction and localized cones of depression. Between 1940 and 1995, groundwater levels declined up to 200 feet in the Tucson area and 150 feet in the Green Valley/Sahuarita area. In 1995, depth to groundwater ranged from less than 100 feet bls to more than 600 feet bls. Between 1994-1995 and 2004-2005, groundwater levels have generally declined by more than 15 feet. Land subsidence in the Tucson Central Wellfield area from the early/mid-1990s to 2011 was measured up to 0.9 feet (ADWR 2016b). Groundwater storage is estimated to be 32.9 MAFA to a depth of 1,000 feet (Mason and Hipke 2013). The Fort Lowell Formation supplied most of the water used in the Tucson basin; however, portions of this formation are partially or completely dewatered, and the Tinaja Beds are now the principal water-bearing unit used.

CAP Water

Under the Proposed Action, CAP water would be allocated to the Proposed Recipients for either direct use or recharge to offset groundwater reliance. CAP water is water from the Colorado River that has been transported through the CAP system. CAWCD monitors CAP water quality on a monthly and quarterly basis along the CAP aqueduct by regularly scheduled collection of grab samples and real-time water quality data from installed sensors. In general, CAP water is slightly basic calcium-sulfate-dominant water with total dissolved solids typically measured at concentrations greater than the federal secondary maximum contaminant level (SMCL) of 500 milligrams per liter (mg/L) and sulfate concentrations generally just below the SMCL of 250 mg/L. No exceedances of federal Maximum Contaminant Levels were reported by CAP in the 2014, 2013, 2012, and 2011 water quality reports (CAP 2015, 2014b, 2013, 2012).

NIA Priority CAP water is the lowest priority of long-term project water within the CAP system. During times of shortages, excess CAP water would be the first to be cut back, followed by NIA Priority CAP water. Currently, it is projected that there would be no excess water available after satisfaction of CAP's contractual commitment to the Agricultural Settlement Pool.

Excess CAP water represents the unused portion of Arizona's annual Colorado River entitlement, and it would decrease over time as existing entitlement holders more fully use their

Final EA Chapter 3. Affected Environment and Environmental Consequences

allocation to meet demand. Since 2009, use of CAP water by long-term entitlement holders has increased, which has reduced the amount of excess CAP water available each year. As a result, there has been no availability, or limited availability of excess water in the last 10 years, and those limitations are expected to continue in the future. Except for Freeport-McMoRan Sierrita Inc., all Proposed Recipients have previously purchased CAP water either for direct use or recharge and either under an M&I subcontract or excess water subcontract. Freeport-McMoRan Sierrita Inc. has relied solely on groundwater for its operational needs (Sierrita 2013).

3.6.2 Environmental Consequences

No Action Alternative

Under the No Action alternative, Freeport-McMoRan Sierrita Inc. would continue to pump groundwater from the Tucson AMA to meet its operational needs of 23,098 AFA, and no NIA CAP water would be recharged in the near term to offset its consumption. If Sierrita Mine were to temporarily or permanently stop operations, groundwater would continue to be withdrawn as part of their interceptor and mitigation wellfields, which are needed to mitigate the sulfate impacted groundwater under Mitigation Order on Consent (P-50-06) issued by the Arizona Department of Environmental Quality (ADEQ). In 2016, the mitigation efforts resulted in 17,095 AF of groundwater pumped and averaged 18,488 AF between 2014 and 2016 (Sierrita 2015, 2016, 2017). Currently the groundwater pumped for mitigation purposes is used for mill operations. The groundwater pumping associated with the Mitigation Order represents groundwater depletions that will need to occur for many years until the consent order is terminated by the ADEQ. This will result in the depletion of groundwater in the Tucson AMA and the depression of the groundwater table in the vicinity of the wellfields.

If Rosemont Mine is permitted, they would utilize their permitted groundwater rights to meet water consumption needs of an average of 5,000 AFA from wells located in the greater Sahuarita and Green Valley areas of the Tucson AMA. In the analysis for the Rosemont Mine FEIS, groundwater modeling indicated that after 20 years of active mining, an area up to 4 miles from the Rosemont wellfield would result in groundwater drawdown of 10 feet or more based solely from the mine water supply pumping (USFS 2013).

Resolution Mine plans to utilize their LTSCs (312,000 AF) to meet their operational needs (500,000 AF) until exhausted and then, utilize their existing Type II groundwater rights and the mineral extraction permit rights to provide the necessary additional water needed to finish mining. Groundwater pumping for Resolution Mine would be from a wellfield located in the ESRV Subbasin of the Phoenix AMA near the MARRCO corridor and would result in the depletion of groundwater and the depression of the groundwater table in the vicinity of the wellfield. The effect mining operations would have on the ESRV Subbasin is not currently known but would be determined as part of the NEPA process for the mine.

The remaining Proposed Recipients would likely seek to obtain alternative water supplies, if available, to meet their demand-supply imbalance, or rely on accrued groundwater credits, or

Final EA Chapter 3. Affected Environment and Environmental Consequences

continue groundwater pumping. In the event alternative supplies could not be fully or partially obtained to meet their imbalance, groundwater pumping would result in the depletion of groundwater, and the depression of the groundwater table, in the vicinity of the pumping wells.

Proposed Action

Under the Proposed Action, ADWR's recommendation for NIA Priority CAP water would be allocated by the Secretary and each Proposed Recipient would either enter into a new subcontract with the CAWCD and Reclamation, or amend an existing subcontract to include the additional allocation, and begin receiving their CAP water allocation based on established priority standards. All Proposed Recipients could use existing infrastructure to receive their allocation. For recipients who propose infrastructure in the future to receive or use the NIA Priority CAP Water reallocation, but do not currently have specific plans, the CAP subcontract language requires that CAP water will not be delivered to the subcontractor unless and until the subcontractor has obtained final environmental clearance from Reclamation for the system or systems through which the CAP water is to be conveyed.

Environmental consequences related to the Proposed Action are discussed relative to the Proposed Recipients' planned use of the CAP water, which is either direct use or storage of the water underground, or in some cases both.

Direct Use of CAP Allocation

The following Proposed Recipients intend to directly use their CAP allocation: Carefree Water Company, Town of Cave Creek, Apache Junction WUCFD, Town of Gilbert, Town of Queen Creek, Viewpoint RV and Golf Resort, New Harquahala Generating Company, and the Salt River Project. Each of these recipients have received and used CAP water previously and, based on their proposed direct use of their allocation, no adverse impacts are anticipated because there would be no change from the current uses. All of these Proposed Recipients have been recommended to receive their allocation because their projected water demand is in excess of their projected available water supplies, as verified by ADWR. The action is beneficial and their use of NIA Priority CAP water would help reduce groundwater overdraft in the Phoenix and Tucson AMAs in proportion to the amount they would receive annually. Groundwater modeling, using ADWR models for the AMAs potentially affected by Proposed Recipients intending to directly use their CAP allocation, has not been performed due to the direct use of the Proposed Recipients' CAP allocation.

For municipalities that do not currently receive CAP water (Town of Queen Creek), their customers may notice a change in the taste of their tap water due to the variations in the dissolved minerals between the water they currently receive versus CAP water. This is not anticipated to be a major adverse impact because taste is subjective, and each municipality would be required to treat their customers' water as necessary to meet federal water quality standards.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Recharge of CAP Allocation

The following Proposed Recipients intend to recharge their CAP allocation: MDWID, EPCOR – Sun City West, Town of Marana, Salt River Project, Town of Queen Creek, City of El Mirage, City of Buckeye, Johnson Utilities, CAGR, Rosemont Copper Company, Resolution Copper Mining, and Freeport-McMoRan Sierrita Inc. Except for CAGR, the purpose for recharging the Proposed Recipients' CAP allocation is to offset their groundwater use. In the case of CAGR, it is to meet replenishment obligations incurred as a result of excess groundwater use by CAGR members. Except for Freeport-McMoRan Sierrita Inc., existing infrastructure would be used to convey the water to existing USFs. Based on the use of CAP water to offset groundwater use and the use of existing infrastructure to convey the water, no adverse impacts are anticipated.

Recharge by Freeport-McMoRan Sierrita Inc. would be used to offset groundwater pumped as part of their ongoing mitigation efforts associated with their Mitigation Order on Consent (P-50-06). Freeport-McMoRan Sierrita Inc. has a CAP water lease agreement with GRIC, and an EA was completed for its plans to take and use its leased GRIC CAP water, which include recharging it at the permitted FICO GSF. If construction of the pipeline to the FICO GSF is not completed by the time the NIA Priority CAP water is made available, Freeport-McMoRan Sierrita Inc. would recharge its allocation at an existing recharge facility for LTSC. The City of Buckeye would use existing infrastructure and USFs to initially store their allocation, or they may potentially construct and operate a new USF in the future to store their allocation. Details of the USF and whether it would be constructed or not are unknown. Since the city's service area and water supply wells occur in two subbasins, Hassayampa and West Salt River Valley, Buckeye would have the ability to recover within either (or both) subbasin utilized for storage.

Groundwater modeling, using ADWR models for the AMAs potentially affected by the Proposed Action for Proposed Recipients recharging their allocation, has not been performed because of the small NIA allocation volumes for each subbasin affected, and the net positive benefit to the AMAs from the Proposed Action. This reallocation would slightly benefit other current water users in the same AMA, because the service area substitution of CAP water for groundwater will reduce groundwater overdraft and help to address individual supply and demand imbalances. Except for the proposed mines, which have not currently constructed recovery wells, Proposed Recipients would use existing wells to recover their groundwater. At the subbasin scale, some of the Proposed Recipients may recharge some or all of their CAP water in a different subbasin than they would recover their water from; depending on the timing of the allocation and construction of proposed storage/saving facilities. Because there is no requirement that the entity recharge and recover its allocation in the same subbasin, this is not considered a significant adverse impact on other water users located in the subbasin in which a net reduction in storage may initially occur. The Proposed Recipients would be recharging and recovering their allocation in their respective AMAs so that the overall effect would result in further progress in reaching AMA water management goals.

Final EA Chapter 3. Affected Environment and Environmental Consequences

3.6.3 Cumulative Effects

Water Use

Water uses in the Tucson and Phoenix AMAs have increased over time and are expected to continue to increase by about 6 percent and 19 percent by 2040, respectively, while water demand in the Pinal AMA is expected to decrease by about 14 percent during the same period (ADWR 2016a; Pinal Comprehensive Plan 2016). By 2040, the population in the AMAs is expected to increase by 57 percent in the Phoenix AMA, 171 percent in the Pinal AMA, and 38 percent in the Tucson AMA. These changes would likely result in a water demand-supply imbalance for the Phoenix and Pinal AMAs, and potentially within the Tucson AMA depending on future renewable water supplies. With increased water use, water users of lower priority CAP water, such as the NIA Priority CAP water, would likely experience periods of reduced availability. With decreased availability of CAP water, Proposed Recipients relying on NIA Priority CAP water to meet demand would likely use groundwater to supplement their water supply if other water sources are not or cannot be obtained. Similar to the changes resulting from climate change (discussed below), the increased water use would require increased implementation of water conservation measures and increased use of water recycling/reuse programs. With these cumulative impacts, the need and search for new renewable water supplies for the AMAs would likely need to continue if conservation measures and use of water recycling/reuse programs are not enough to achieve safe yield conditions in the AMAs.

Although the three mines under the Proposed Action are not required to offset their permitted groundwater usage, their allocations would help in achieving or maintaining safe yield conditions in their respective AMAs. Once operational, the proposed Resolution and Rosemont mines would further increase groundwater drawdown in the areas of their respective wellfields. The groundwater withdrawn would be from CAP water LTSCs and existing groundwater rights. The groundwater withdrawals would be concurrent with the start of mine operations, and would last through the life of the mines with groundwater levels around the wellfields rebounding when mine operations ceased. Direct use of the CAP water, if developed, would help to alleviate groundwater decreases around the wellfields.

By 2013, Rosemont had banked 517.91 AF at the Pima Mine Road USF located in the Avra Valley Subbasin of the Tucson AMA and 42,075.11 AF at the Lower Santa Cruz USF located in the Upper Santa Cruz Subbasin of the Tucson AMA (Rosemont 2013). Rosemont Mine would be recovering their allocation from the Upper Santa Cruz Subbasin of the Tucson AMA with their intent to store their CAP allocation in the proposed CWC USF, which would be located near their supply wells (Figure 5). However, a large amount of their LTSC were accrued in the neighboring subbasin of the Tucson AMA. Although this is not considered a significant impact, since the Tucson AMA as a whole would benefit from the Proposed Action and has benefited from the previous LTSC accrual conducted, at the subbasin scale, the Avra Valley Subbasin will have a net gain and the Upper Santa Cruz Subbasin will have a net loss which would result in a decrease in groundwater levels around the recovery wells once operational. However,

Final EA Chapter 3. Affected Environment and Environmental Consequences

Resolution's accrual of LTSC has been a net benefit to the Tucson AMA since they are permitted to withdrawal 6,000 AFA for operations and are not required to accrue any LTSCs.

The Rosemont Mine wellfield would be located about 3 miles downgradient of the proposed CWC recharge basins. As part of the EA for the CWC project (Reclamation 2010), recharge at the site was modeled by Montgomery and Associates (M&A) under the scenario of Rosemont pumping at their wellfield (M&A 2010). The modeling assumed 7,000 AFA of water would be recharged at the recharge basins and between 5,400 and 4,700 AFA would be pumped from the wellfield, both being conducted over the same timeframe of 2012-2031. Based on the modeling results, a net increase in groundwater elevation was predicted to occur. Therefore, assuming the timing of recharge at CWC and pumping at Rosemont's wellfield are coincident, the cumulative effect of Rosemont's groundwater extraction for operations would be offset by recharge occurring at the CWC recharge facility. CWC has agreed to give Rosemont priority for use of CWC's CAP water entitlement of 2,858 AFA for the first 15 to 20 years of the system's operation unless it is needed by CWC (Reclamation 2010). With the addition of 1,124 AFA under the Proposed Action for Rosemont, up to 3,982 AFA could be recharged from these two CAP water sources. If Rosemont were to construct a pipeline for direct use of their CAP water, groundwater drawdown-related impacts from their wellfield would be reduced.

For the Sierrita Mine, there would only be a benefit to groundwater resources under the Proposed Action. Sierrita currently withdraws 23,098 AFA from the Tucson AMA, and would receive 5,678 AFA under the Proposed Action. As part of the Mitigation Order on Consent, the mine is implementing a pump-and-reuse system to control the migration of sulfate impacted groundwater emanating from the mine. Recharge of their 5,678 AFA in the Tucson AMA under the Proposed Action would offset their current groundwater use. Based on the average mitigation pumping of 18,488 AF between 2014 and 2016 and their average annual use of 23,098 AFA for operations, the mine had to pump about 4,600 AF more groundwater from production wells to make up for the groundwater pumped for operations of the mitigation system. The proposed allocation would offset the additional groundwater to be pumped to meet operational demand.

Both the Sierrita Mine wellfield and the Rosemont Mine wellfield are located in the same subbasin (Upper Santa Cruz) of the Tucson AMA. The Proposed Action would reduce groundwater pumping from the Upper Santa Cruz subbasin of up to 6,802 AFA that would have otherwise occurred under the existing groundwater withdrawal permits for both mines. With both the Sierrita Mine and the Rosemont Mine wellfield located in the same subbasin of the Tucson AMA, the cumulative effect of the Proposed Action would be a net benefit in reducing groundwater pumping associated with the two mines.

As of December 31, 2012, Resolution had banked 187,575 AF at the New Magma IDD, 13,300 AF at the Roosevelt Conservation GSF, and 18,544 AF at the Tonopah Desert USF, all of which are located in the Phoenix AMA, and 56,780 AF at the Hohokam IDD located in the Pinal AMA (Resolution 2013). The New Magma IDD is located in the same subbasin from which Resolution would extract groundwater for operations; therefore, at the subbasin scale

Final EA Chapter 3. Affected Environment and Environmental Consequences

Resolution's actions would decrease the effect on groundwater levels that would otherwise have occurred had they only relied on groundwater withdrawal permits for operations. Resolution's accrual of LTSCs in other subbasins of the Phoenix AMA, and within the Pinal AMA, has benefited these groundwater areas since recovery by Resolution will not occur in these areas.

The current recovery wellfield design for Resolution consists of approximately 30 wells with a capacity of approximately 400 gpm each along the MARRCO Corridor between the CAP canal and SR 79 (Resolution 2016). The purpose of the recovery wells is to recover accrued LTSC. Resolution has banked about 70 percent of the total amount of water needed for the life of the mine of renewable LTSC (*Id.*). Resolution currently treats water pumped from its underground mine workings at its water treatment plant constructed in 2007, and then sends the reclaimed water via a 25-mile pipeline for beneficial use to farmers in the New Magma IDD GSF (Figure 3) (*Id.*). Both the Resolution wellfield and New Magma IDD are located in the ESRV subbasin of the Phoenix AMA. Since the Proposed Action under this EA is not a connected action with the development of the mine (Section 3.1), the effect mining operations would have on the ESRV Subbasin is not currently known but would be determined as part of the NEPA process for the mine. Under the Proposed Action, Resolution would receive 2,238 AFA of CAP water that would be used for additional accrual of LTSC until operations begin, and potential direct use once operational. Therefore, accrual of LTSC under the Proposed Action until the mine is operational, or potential future direct use of the allocation once operational, will only benefit the ESRV Subbasin.

Climate Change

Changing climate conditions in the Southwest deserts, including increased temperatures, reduced precipitation, lower snowpack, and increased evapotranspiration, are likely to result in significant changes to the hydrologic cycle and water resources. In the three AMAs, the likely result would be reduced groundwater recharge that would limit groundwater availability for water supply, though the effects may occur over centuries (Hughson et al. 2011). Reduced recharge would result in increased difficulty in achieving and maintaining the AMA goals of the safe yield of groundwater.

Colorado River flows, which supply water to the CAP, are likely to decrease 5 to 20 percent by 2050 due to climate change (Reclamation 2012). With Arizona's reliance on CAP water to supply a significant quantity of renewable water supplies to the state, and Arizona's junior water right for Colorado River water, the projected climate changes have the potential to decrease the state's Colorado River water supply. Arizona has been preparing for the potential effects of future shortages on the Colorado River by storing excess CAP water when available. This action is also helpful in combatting potential impacts associated with climate change. Projected future conditions as a result of climate change would require increased implementation of water conservation measures and increased use of water recycling/reuse programs.

During periods of shortages on the Colorado River, the Proposed Recipients may not receive all or part of the NIA Priority CAP water due to the low priority of the water within the CAWCD

Final EA Chapter 3. Affected Environment and Environmental Consequences

pool structure. This would result in each Proposed Recipient potentially relying on their available groundwater water supplies and increasing their reliance on any groundwater credits accrued if they cannot acquire alternate water supplies to fulfill their needs.

3.7 Socioeconomic Resources

The analysis of social and economic conditions addresses the relationships between the Proposed Action and the communities it may affect. There would be no immediate (i.e., direct) impacts on socioeconomic resources from the Secretary's approval of ADWR's reallocation recommendation. Socioeconomic conditions that may be indirectly affected by the Proposed Action include population, economic characteristics, and residential and commercial development.

The analysis area for impacts on socioeconomic resources includes the three AMAs in which the Proposed Recipients are located: Phoenix, Pinal, and Tucson. Where appropriate, the socioeconomic analysis includes the four counties in which the AMAs are located: Maricopa, Pima, Pinal, and Yavapai. The Phoenix AMA overlaps only a small portion of Yavapai County's southern portion. Yavapai County, therefore, is not discussed in depth as none of the Proposed Recipients are located in that county. Specific information about socioeconomic conditions, the communities in which the Proposed Recipients are located and, when available, the Proposed Recipients themselves, are analyzed. When appropriate, the United States and Arizona are included in the analysis to provide context and comparison for the AMAs, counties, municipalities, and Proposed Recipients.

3.7.1 Affected Environment

Socioeconomics

Population and Demographic Characteristics

Historic, current, and projected population for the socioeconomic environment is analyzed at the AMA and Proposed Recipient level. Demographics, including race and ethnicity, are analyzed by the county and municipality in which the Proposed Recipients are located.

The Phoenix, Pinal, and Tucson AMAs have a combined population of 5.31 million, which is about 80 percent of Arizona's total population. The population of the combined service areas for the municipal Proposed Recipients is about 501,000, which represents about 8 percent of Arizona's population, and about 9.5 percent of the AMAs' population (ADWR 2016a). Arizona's population is growing rapidly. Between 2000 and 2010, the state experienced a population increase of 25 percent, and between 2010 and 2014, a population increase of 4 percent (U.S. Census Bureau (USCB) 2014). Likewise, the AMAs' and municipal Proposed Recipients' service areas have experienced population growth comparable to, and in some cases far exceeding, Arizona's growth. Pinal AMA's growth rate is expected to far exceed Arizona's growth rate over the next 25 years. Johnson Utilities' Pinal service area and the City of Buckeye

Final EA Chapter 3. Affected Environment and Environmental Consequences

are expected to experience an increase in population greater than 300 percent by 2040 (ADWR 2016a). Table 7 provides the historic, current, and projected populations and percent population change for Arizona, the AMAs, and the service areas for the municipal Proposed Recipients of the NIA Priority CAP water under the Proposed Action.

TABLE 7. HISTORIC AND PROJECTED POPULATIONS – AMAS AND PROPOSED RECIPIENTS.

Proposed Recipient	2000	2010	% Change 2000-2010	2016	% Change 2010-2016	2040 (Projected)	% Change 2016-2040
Phoenix AMA	3,118,000	3,959,000	27	4,390,000	11	6,438,000	47
Pinal AMA	99,143	191,518	93	228,000	19	543,000	138
Tucson AMA	835,504	980,988	17	1,044,000	6	1,403,000	34
Apache Junction Water Facilities District	13,598	13,554	0	15,032	11	20,893	39
Carefree Water Company	2,179	2,447	12	2,619	7	3,210	23
Cave Creek Water Company	3,553	5,015	41	5,568	11	8,483	52
City of Buckeye	5,060	27,072	435	40,452	49	195,474	383
City of El Mirage	13,707	35,179	157	36,890	5	54,341	47
EPCOR - Sun City West	26,420	24,212	-8	24,526	1	25,863	5
Johnson Utilities - Phoenix	1,145	55,615	4757	65,747	18	113,186	72
Johnson Utilities - Pinal	NA	2,595	NA	6,553	153	26,453	304
MDWID	445	2,415	443	2,508	4	5,165	106
Town of Gilbert	109,576	210,913	92	244,616	16	320,635	31
Town of Marana	3,423	13,360	290	18,591	39	39,679	113
Town of Queen Creek	10,838	63,718	488	77,009	21	122,806	59

Source: ADWR 2016a.

The populations that would be served by the municipal Proposed Recipients are diverse. Table 8 provides the proportions of populations that are non-White and Hispanic or Latino for the state,

Final EA Chapter 3. Affected Environment and Environmental Consequences

counties, and municipalities in which the Proposed Recipients are located. While Maricopa, Pima, and Pinal Counties have similar Hispanic population proportions as Arizona, the municipalities in which the Proposed Recipients are located vary in their racial and ethnic characteristics. The cities of El Mirage, Buckeye, and Tucson have greater proportions of Hispanic or Latino ethnicity residents than Arizona and the counties. Carefree, Cave Creek, and EPCOR - Sun City West have substantially lower Hispanic or Latino ethnicity population proportions than the state and counties.

None of the Proposed Recipient communities have a substantially greater proportion of the population that identifies as a non-White race overall. Arizona and Pinal County both have a higher proportion of the population that is American Indian or Alaska Native than the United States; however, the Proposed Recipient communities all have a lower proportion of their populations than the United States, Arizona, and Pinal County. Arizona, the counties, and all of the Proposed Recipient communities have a lower proportion of their populations that identify their race as Black or African American, or as Native Hawaiian or other Pacific Islander races, than the country as a whole. Gilbert has a slightly higher proportion of its population that are Asian than the United States, while all of the other Proposed Recipient communities have a comparable or lower proportion of Asian residents than the United States. Buckeye, El Mirage, and Tucson all have a higher proportion of residents that identify as an other non-specified race than Arizona and the United States.

Final EA Chapter 3. Affected Environment and Environmental Consequences

TABLE 8. NON-WHITE AND HISPANIC POPULATIONS FOR THE UNITED STATES, ARIZONA, COUNTIES, AND COMMUNITIES RECEIVING REALLOCATED WATER.

Community	Black or African American (%)	American Indian and Alaska Native (%)	Asian (%)	Native Hawaiian and Other Pacific Islander (%)	Some Other Race (%)	Non-White (%)	Hispanic or Latino (%)
United States	13.7	1.7	5.9	0.4	5.2	26.9	16.9
Arizona	5.1	5.4	3.8	0.4	7.1	21.8	30.1
Maricopa County	6.2	2.7	4.6	0.4	6.7	20.6	29.9
Pima County	4.6	4.2	3.8	0.4	9.2	22.2	35.4
Pinal County	5.4	6.4	2.4	0.7	6.4	21.3	29.0
Yavapai County	1.0	3.0	1.4	0.1	3.0	8.5	13.9
Apache Junction	1.8	3.4	1.7	0.1	3.5	10.5	16.8
Buckeye	8.7	2.4	1.9	0.3	9.2	22.5	37.6
Carefree	0.0	0.0	0.0	0.0	0.1	0.1	3.2
Cave Creek	0.8	2.6	0.5	0.0	2.1	6.0	3.8
El Mirage	6.8	2.6	2.5	0.3	10.6	22.8	47.0
Gilbert	4.5	1.7	7.5	0.4	2.6	16.7	15.6
Marana	4.4	1.4	6.0	0.4	5.4	17.6	20.8
Queen Creek	2.9	1.9	1.8	0.1	6.5	13.2	17.7
Sun City West	0.3	0.3	1.6	0.0	0.4	2.6	0.6
Tucson	6.3	3.8	3.9	0.4	11.6	26.0	42.2

Source: USCB 2014.

Economic Characteristics

The economic characteristics analysis area includes Maricopa, Pima, Pinal, and Yavapai Counties and the municipalities in which the municipal Proposed Recipients are located. Table 9 provides the economic characteristics of Arizona, the counties, and the municipalities in which the Proposed Recipients are located. Economic characteristics analyzed include labor force and employment characteristics, unemployment, and income including poverty rates.

Final EA Chapter 3. Affected Environment and Environmental Consequences

TABLE 9. ECONOMIC ATTRIBUTES FOR THE UNITED STATES, ARIZONA, COUNTIES AND COMMUNITIES RECEIVING REALLOCATED WATER, 2009-2010.

Community	Labor Force (%)	Unemployment Rate (%)	Median Household Income (dollars)	Per Capita Income (dollars)	Families Below Poverty Level (%)	Individuals Below Poverty Level (%)
United States	63.5	5.8	53,482	28,555	11.5	15.6
Arizona	59.7	5.9	49,928	25,537	13.3	18.2
Maricopa County	63.6	5.6	53,689	27,477	12.7	17.1
Pima County	58.8	6.3	46,233	25,524	13.2	19.0
Pinal County	50.9	5.9	50,248	20,983	11.5	16.8
Yavapai County	50.7	5.5	44,000	25,068	11.2	16.1
Apache Junction	45.5	7.4	36,771	15,129	17.0	23.9
Buckeye	53.3	4.8	58,703	20,149	12.8	16.2
Carefree	39.7	1.9	93,130	62,325	12.2	10.4
Cave Creek	58.4	3.7	78,972	46,517	3.8	6.2
El Mirage	63.6	5.8	47,564	17,849	17.2	19.6
Gilbert	73.4	4.6	81,485	31,546	5.3	6.8
Marana	64.5	4.7	74,817	33,649	3.3	4.9
Queen Creek	69.5	2.9	83,809	77,594	7.2	8.6
Sun City West	10.9	0.9	45,157	36,304	2.1	4.6
Tucson	60.80	7.3	37,149	20,437	18.6	25.1

Source: USCB 2014.

The communities in which the Proposed Recipients are located vary in their economic characteristics. The median household income (MHI) in Arizona is estimated at about \$50,000, which is slightly lower than the MHI for the United States. Maricopa County has a nearly identical MHI to the national MHI, while Pinal County has a MHI similar to Arizona, and Pima and Yavapai Counties have a slightly lower MHI than Arizona. Carefree, Cave Creek, Gilbert, Marana, and Queen Creek have substantially higher MHIs than the state and counties, while Apache Junction and Tucson have substantially lower MHIs than the state and counties. El Mirage and Sun City West have lower but comparable MHIs to the state and counties, while Buckeye has a higher but comparable MHI to the state and counties (USCB 2014).

Arizona has slightly higher rates of families and individuals living below the poverty rate than the United States. Apache Junction, El Mirage, and Tucson have higher poverty rates than the United States, while Cave Creek, Gilbert, Marana, Queen Creek, and Sun City West have substantially lower poverty rates than Arizona and the counties. Unemployment rates among the communities are comparable to Arizona, the counties, and the United States, with Tucson having slightly higher unemployment rates, and Carefree, Cave Creek, Queen Creek, and Sun City West having lower unemployment rates (USCB 2014).

Final EA Chapter 3. Affected Environment and Environmental Consequences

Residential Development

Along with population change, the AMAs and Proposed Recipients are experiencing, and are expected to continue to experience, growth in residential development. Analysis of residential and commercial development includes the three dominant counties in which the AMAs are located: Maricopa, Pima, and Pinal.

Residential development in Maricopa County is expected to increase by 1.0 to 1.6 percent annually between 2020 and 2040. The overall number of residential units in Maricopa County is projected to increase 67.7 percent between 2010 and 2040 (Maricopa Association of Governments (MAG) 2013).

In 2014, the estimated number of housing units in Pima County was about 450,000 units. Pima County does not have projections for residential development, but it can be inferred that, because the population of the Tucson AMA (which is mostly in Pima County) is expected to increase by 26 percent between 2016 and 2040, that residential development will also increase (USCB 2014). The MDWID intends to use the proposed reallocated NIA Priority CAP water for the Diablo Village development, which is currently built out to only 6 percent, but is expected to grow.

Pinal County has been experiencing growth in residential development similar to Maricopa County. Between 2000 and 2015, Pinal County experienced a 40 percent increase in housing units. Between 2020 and 2040, the number of housing units in the county is projected to increase by 35.4 percent (Applied Economics 2009). Major drivers of residential development in Pinal County are its proximity to Phoenix and housing affordability (Pinal County Comprehensive Plan Update 2014).

Environmental Justice

Executive Order (EO) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was issued by the President of the United States on February 11, 1994. This order established requirements to address environmental justice concerns within the context of agency operations. For this analysis, the minority race and ethnic populations, and the proportion of residents that fall below the poverty line within the individual Proposed Recipient communities, are compared with Arizona and the United States to determine if they are considered EO 12898 populations.

Race and Ethnicity

Within the analysis area, Buckeye, El Mirage, and Tucson have Hispanic or Latino population proportions that are above Arizona’s and the counties’ Hispanic or Latino population proportions. The communities, however, would not constitute EO 12898 populations as the minority demographic does not exceed 50 percent of the total population, and is not meaningfully greater than the Arizona’s overall demographics. Non-White minority populations in each of the Proposed Recipient communities are below or comparable to Arizona’s and the

Final EA Chapter 3. Affected Environment and Environmental Consequences

counties' non-White minority populations. No individual race represents a disproportionately higher part of the populations, nor does any minority race exceed 50 percent of the population within any of the Proposed Recipient communities (Table 8).

Low-Income Populations

Low-income populations for this analysis are defined as those individuals and families that have fallen below the poverty line within a year of the most recent available census data, which was published in 2014. The poverty threshold in 2014 for a family of four with two children under 18 years of age was about \$28,000 per year in household income. The poverty threshold for an individual under 65 years of age in 2014 was about \$12,000 per year in individual income (USCB 2014). The household poverty rates are between \$18,000 for a household of three and \$49,000 for a household of nine or more.

As outlined in Table 9, Arizona has slightly higher rates of families and individuals living below the poverty rate than the United States. Apache Junction, El Mirage, and Tucson have higher poverty rates than the United States while Cave Creek, Gilbert, Marana, Queen Creek, and Sun City West have substantially lower poverty rates than Arizona and the counties. Apache Junction, El Mirage, and Tucson would not be considered EO 12898 populations because the poverty rates for families and individuals within these communities are not meaningfully higher than state and national rates, nor do they exceed 50 percent of the population (Table 9).

3.7.2 Environmental Consequences

No Action Alternative

Under the No Action alternative, indirect long-term impacts on the socioeconomic environment may include delays or reductions in residential development to meet population growth demands. The municipal Proposed Recipients would likely use available groundwater resources to supply water for residential and commercial development in the short term, which may result in overdraft of groundwater. Overdraft of groundwater may affect water quality, which would affect economic development and the quality of life of residents in the communities. If development continues at its current and projected rates, overdraft of groundwater may lead to reduction in water availability and result in housing shortages, loss of jobs, and reductions in tax revenues. Industrial Proposed Recipients that have groundwater rights would continue to operate, using groundwater sources. There would be no direct impact on income and employment, but an indirect adverse impact may result due to a lack of reliable renewable water sources that would accommodate the communities' economic sectors.

For Proposed Recipients, the potential rejection of ADWR's reallocation recommendation also has the potential to slightly impact the resulting cost of future recipient's NIA Priority CAP water, since the cost of any additional NEPA analysis(es) would be incurred by the recipients as part of the purchase price of the CAP water in order to recapture back capital charges.

Final EA Chapter 3. Affected Environment and Environmental Consequences

Within the Pinal AMA, Diablo Village, which would be the recipient of water allocated to the MDWID under the recommendation, would rely on the CAGRDR for groundwater replenishment services under the No Action alternative. The CAGRDR would also not receive the proposed allocated water under the No Action alternative, thus having less water for replenishment services. Currently, and under the No Action alternative, the Diablo Village development would use groundwater supplied from two wells and an emergency backup interconnect with Tucson Water. The groundwater level below Diablo Village is currently very deep, and the rejection of the recommendation would result in greater groundwater depletions (up to 245 feet) over the next 100 years.

Proposed Action

Under the Proposed Action, each Proposed Recipient would either enter into a new subcontract with the CAWCD and Reclamation or amend an existing subcontract to include the additional allocation and begin receiving their CAP water allocation based on established priority standards.

Socioeconomics

The proposed NIA Priority CAP water reallocations would cost the Proposed Recipients approximately \$161 per AFA of water for the actual cost of delivering the water, to be adjusted annually. A one-time fee of \$4 per AFA would be charged for environmental compliance during the first year. In addition, back capital charges and debt repayment, totaling \$1,300 to \$1,500 per AFA, would be due, payable in up to five annual payments, with interest.

It is likely these costs would be passed along to the users within the municipal Proposed Recipients' service areas, resulting in an increase in water costs for individual users. The increase for industrial Proposed Recipients would likely be absorbed as operating expenses.

Population growth and economic development are expected to continue within the AMAs, the counties, and the communities. The Proposed Action, when added to the beneficial effects of economic growth, would accommodate the overall socioeconomic development within the analysis area. Socioeconomic impacts within the analysis area are also expected to range from minor beneficial to minor adverse impacts. Minor beneficial impacts include a relatively secure water supply, so that communities and industrial recipients could plan economic development and growth while reducing groundwater overdraft. Adverse indirect impacts may result from potential future shortages of CAP water. During periods of shortages on the Colorado River, the Proposed Recipients may not receive all or part of the NIA Priority CAP water due to the low priority of the water within the CAWCD pool structure. While the Proposed Action would not have a direct impact on income and employment, the availability of a stable and affordable water supply would accommodate the economic sectors that form the basis of the communities' economies.

Under the Proposed Action, the municipal Proposed Recipients that are intending to use the reallocated NIA Priority CAP water directly would have additional water supplies to support

Final EA Chapter 3. Affected Environment and Environmental Consequences

population growth and economic development, which are expected to occur independently of the Proposed Action, while reducing groundwater overdraft. The municipal Proposed Recipients that are intending to use the reallocated NIA Priority CAP water for storage and recovery would be able to balance their water needs and demands, and reduce groundwater overdraft.

Environmental Justice

No communities within the analysis area would be considered to have EO 12898 populations. The reallocation of NIA Priority CAP water to the Proposed Recipients may result in economic growth in the AMAs, counties, and communities, including those with a higher ratio of Hispanic or Latino residents and families and individuals that fall below the poverty line.

3.7.3 Cumulative Effects

As discussed in Section 3.2.1, past and future increasing populations within the AMAs and communities have resulted in, and are expected to continue to, result in increased water demand as residential and economic development continues. During periods of shortages on the Colorado River, the Proposed Recipients may not receive all or part of the NIA Priority CAP water due to the low priority of the water within the CAWCD pool structure. In these events, the Proposed Recipients would likely use groundwater to supplement their water supply if other water sources are not or cannot be obtained. The increased water demand would require increased implementation of water conservation measures and increased use of water recycling/reuse programs, which could lead to slower rates of economic growth and increased water costs for the Proposed Recipients. With these cumulative impacts, the need and search for new renewable water supplies for the AMAs under projects such as the Proposed Action and other CAP water projects would likely need to continue if conservation measures and use of water recycling/reuse programs are not enough to achieve safe yield conditions in the AMAs.

With a transition to a more arid climate already underway, population growth in the arid Southwest, for which water is a necessary requirement, would contribute to stresses on the environment and the water resources in the region. Arizona has been preparing for the potential effects of future shortages on the Colorado River by storing excess CAP water when available. The reallocation of NIA Priority CAP water to the Proposed Recipients who intend to store the water would help mitigate future water shortages from climate change, which would be a beneficial impact.

3.8 Resources Considered But Not Affected

Due to the nature of the Proposed Action, the following resource areas are not anticipated to be affected to any measurable degree and, therefore, are not included in the analysis: Air quality, geology and soils, recreation resources, and visual resources. The reasons these resources are not analyzed in detail are described below.

Final EA Chapter 3. Affected Environment and Environmental Consequences

3.8.1 Air Quality

There would be no direct impacts on air quality from the Proposed Action. For recipients who propose infrastructure in the future to receive or use the NIA Priority CAP Water reallocation, but do not currently have specific plans (see Table 6 in Section 3.6.1), no attempt has been made in this EA to quantify potential impacts from construction and operation of these new facilities, their location, and the resulting air quality issues that would occur. This is because those specifics are unknown at this time and the Proposed Recipients have the option to recharge their allocation through ADWR's Underground Water Storage, Savings & Replenishment Program using existing infrastructure. The water service subcontract for the Proposed Recipients contains language that requires completion of site-specific environmental clearances prior to any ground-disturbing activities related to constructing infrastructure necessary to take and use the reallocated water. For this reason, air quality has been dismissed from further analysis in this EA.

3.8.2 Geology and Soils

There would be no direct impacts on geology and soils from the Proposed Action. For recipients who propose infrastructure in the future to receive or use the NIA Priority CAP Water reallocation, but do not currently have specific plans (see Table 6 in Section 3.6.1), no attempt has been made in this EA to quantify potential impacts from construction and operation of these new facilities, their location, and the resulting geology and soil disturbances that would occur. This is because those specifics are unknown at this time and the Proposed Recipients have the option to recharge their allocation through ADWR's Underground Water Storage, Savings & Replenishment Program using existing infrastructure. The water service subcontract for the Proposed Recipients contains language that requires completion of site-specific environmental clearances prior to any ground-disturbing activities related to constructing infrastructure necessary to take and use the reallocated water. For this reason, geology and soils have been dismissed from further analysis in this EA.

3.8.3 Recreation and Visual Resources

There would be no direct impacts on recreation and visual resources from the Proposed Action. For recipients who propose infrastructure in the future to receive or use the NIA Priority CAP Water reallocation, but do not currently have specific plans (see Table 6 in Section 3.6.1), no attempt has been made in this EA to quantify potential impacts from construction and operation of these new facilities, their location, and the resulting recreation and visual disturbances that would occur. This is because those specifics are unknown at this time and the Proposed Recipients have the option to recharge their allocation through ADWR's Underground Water Storage, Savings & Replenishment Program using existing infrastructure. The water service subcontract for the Proposed Recipients contains language that requires completion of

Final EA Chapter 3. Affected Environment and Environmental Consequences

site-specific environmental clearances prior to any ground-disturbing activities related to constructing infrastructure necessary to take and use the reallocated water. For this reason, recreation and visual resources have been dismissed from further analysis in this EA.

3.8.4 Indian Trust Assets (ITAs)

ITAs are legal interests in assets held in trust by the U.S. government for Native American tribes or individual Native Americans. These assets can be real property or intangible rights including lands, minerals, water rights, hunting rights, other natural resources, and money. The trust responsibility requires that all federal agencies take actions reasonably necessary to protect ITAs. The water rights included in the Proposed Reallocation are not ITAs and, therefore, there would be no impact on ITAs from the Proposed Action.

Chapter 4. Agencies, Tribes, and Persons Consulted

Federal

Advisory Council on Historic Preservation
Bureau of Indian Affairs
Bureau of Land Management
National Park Service
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Geological Survey

State

Arizona Department of Environmental Quality
Arizona Game and Fish Department
Arizona State Historic Preservation Office
Arizona State Lands Department
Arizona State Parks
Arizona Department of Transportation

Counties

Maricopa County
Pima County
Pinal County

Native American Tribes

Ak Chin Indian Community
Fort McDowell Yavapai Nation
Gila River Indian Community
Hopi Tribe
Pascua Yaqui Tribe
Salt River Pima-Maricopa Indian Community
San Carlos Apache Agency
San Carlos Apache Tribe
San Xavier Allottee Association, Inc.
Tonto Apache Tribe
Tohono O'odham Nation
Yavapai-Apache Nation
Yavapai-Prescott Indian Tribe

Final EA Chapter 4. Agencies, Tribes, and Persons Consulted

Cooperating Agencies

Arizona Department of Water Resources
Central Arizona Water Conservation District

List of Preparers

Bureau of Reclamation

Sean Heath, Environmental Manager
Sandra Eto, NEPA Specialist
Tab Bommarito, Biologist
Lauren Jelinek, Archaeologist
Kelly Bergin, Environmental Protection Specialist

ERO Resources Corporation (ERO)

Nicole Bauman, Project Manager and NEPA Specialist
Craig Sommers, Technical Advisor
Brian Olmsted, Hydrologist
Emily Thorn, Economic and Natural Resource Planner
Clint Henke, Natural Resource Specialist
Lia Jenkins, Environmental Specialist
Aimee Way, Biologist
Kathy Croll, Archaeologist
David Hesker, Graphics
Kay Wall, Technical Editor

Other Contributors and Reviewers

Arizona Department of Water Resources

Deanna Ikeya
Gerry Walker
Kelly Brown

Central Arizona Water Conservation District

David Johnson
Patrick Dent
Jessica Fox
Glenn Emanuel

Chapter 5. References

- Anderson, S. 1989. *Potential for Aquifer compaction, land subsidence, and earth fissures in the Tucson basin, Pima County Arizona: US Geological Survey Water-Resource Investigations Report*, 87-4190. USGS.
- Applied Economics. 2009. *Pinal Projections Study*. Available at: <http://www.aeconomics.com/caag/MarketAreaAssessment.html>. Last accessed: February 4, 2016.
- Arizona Department of Water Resources (ADWR) a. No date (n.d.). Active Management Areas. Available at: <http://www.azwater.gov/AzDWR/WaterManagement/AMAs/PhoenixAMA/PhxAMAWater>. Last accessed: August 17, 2015.
- Arizona Department of Water Resources (ADWR) b. No date (n.d.). Active Management Area Fourth Management Plan Information. Available at: <http://www.azwater.gov/AzDWR/WaterManagement/AMAs/FourthManagementPlan.htm>. Last accessed: August 17, 2015.
- Arizona Department of Water Resources (ADWR) c. No date (n.d.). History of ADWR. Available at: <http://www.azwater.gov/AzDWR/PublicInformationOfficer/history.htm>. Last accessed: August 17, 2015.
- Arizona Department of Water Resources (ADWR) d. No date (n.d.). Overview of the Arizona Groundwater Management Act. Available at: http://www.azwater.gov/AzDWR/WaterManagement/documents/Groundwater_Code.pdf. Last accessed: August 17, 2015.
- Arizona Department of Water Resources (ADWR) e. No date (n.d.). Non-Indian Agricultural Water Reallocation Process. Available at: <http://www.azwater.gov/AzDWR/PublicInformationOfficer/Non-IndianAgriculturalReallocationProcess.htm>. Last accessed: August 17, 2015.
- Arizona Department of Water Resources (ADWR). 1983. *Record of Decision for the 1983 Allocation of CAP Water*. Available at: <http://www.cap-az.com/documents/departments/water-operations/CAP-allocation-ROD-3-1983.pdf>. Last accessed: August 17, 2015.
- Arizona Department of Water Resources (ADWR). 1999a. *Third Management Plan, 2000-2010 for Phoenix Active Management Area*. Chapter 2 Overview of Water Resources. December 13.
- Arizona Department of Water Resources (ADWR). 1999b. *Third Management Plan, 2000-2010 for Pinal Active Management Area*. Chapter 2 Overview of Water Resources. December 13.

- Arizona Department of Water Resources (ADWR). 1999c. *Third Management Plan, 2000-2010 for Tucson Active Management Area*. Chapter 2 Overview of Water Resources. December 13.
- Arizona Department of Water Resources (ADWR). 2010. *Water Atlas of Arizona*, Volume 8: Active Management Areas. April.
- Arizona Department of Water Resources (ADWR). 2011. Assured and Adequate Water Supply 101 Presentation. Available at: <http://www.azwater.gov/azdwr/WaterManagement/AAWS/default.htm>. Last accessed: February 4, 2016.
- Arizona Department of Water Resources (ADWR). 2014a. *Arizona's Next Century: a Strategic Vision for Water Supply Sustainability*. Available at: http://www.azwater.gov/AzDWR/Arizonas_Strategic_Vision/documents/ArizonaStrategicVisionforWaterResourcesSustainability_May2014.pdf.
- Arizona Department of Water Resources (ADWR). 2014b. *Population Projections for the AMAs, 2000 to 2040*. ADWR Data Management.
- Arizona Department of Water Resources (ADWR). 2016a. *Population Projections for the AMAs, 2000 to 2040*. ADWR Data Management.
- Arizona Department of Water Resources (ADWR). 2016b. *Tucson Active Management Area Fourth Management Plan*. May 13.
- Arizona Game and Fish Department (AGFD). 2016a. Species unpublished abstracts. Available at: http://www.azgfd.gov/w_c/edits/hdms_abstracts.shtml. Last accessed: February 11 2016.
- Arizona Game and Fish Department (AGFD). 2016b. Environmental Review Tool Online. Available at: <http://www.azgfd.gov/hgis/>. Last accessed: March 24, 2016.
- Arizona Game and Fish Department (AGFD). 2016c. *Environmental Review of Arizona Department of Water Resources Recommendation for Reallocation of Priority Central Arizona Project Water*. April 11.
- Arizona Municipal Water Users Association. 2015. *Cities and Gila Indian Community Swap Water*. Available at: <https://amwua.wordpress.com/2015/04/>. Last accessed: April 25, 2016.
- Arizona Water Settlements Act (AWSA), P.L. 108-451, December 2004.
- Brown, D.E. (ed.). 1994. *Biotic communities of the American Southwest United States and Mexico*. University of Utah Press, Salt Lake City.
- Brown, D.E. and T.C. Brennan. 2007. *A digitized Biotic Community Map for Plotting and Comparing North American Plant and Animal Distributions*. *Canotia* 3(1):1-12.
- Central Arizona Project (CAP) a. No date (n.d.). About CAP. Available at: <http://www.cap-az.com/about-us/background>. Last accessed: August 17, 2015.

- Central Arizona Project (CAP) b. No date (n.d.). History of CAP. Available at: <http://www.cap-az.com/about-us/history>. Last accessed: August 17, 2015.
- Central Arizona Project (CAP) c. No date (n.d.). Law of the River. Available at: <http://www.cap-az.com/about-us/law-of-the-river>. Last accessed: August 17, 2015.
- Central Arizona Project (CAP). 2012. *2011 Annual Water Quality Report*. Prepared by Water Control Department. Contributing efforts by Arizona State University. July.
- Central Arizona Project (CAP). 2013. *2012 Annual Water Quality Report*. Prepared by Water Control Department. Contributing efforts by Arizona State University. August.
- Central Arizona Project (CAP). 2014a. Action Brief Board of Directors: Consideration of Action to Approve a CAGRD Member Service Area Agreement Between CAWCD and Metropolitan Domestic Water Improvement District Southwest-Diablo Village. January 9.
- Central Arizona Project (CAP). 2014b. *2013 Annual Water Quality Report*. Prepared by Water Control Department. Contributing efforts by Arizona State University. July.
- Central Arizona Project (CAP). 2015. *2014 Annual Water Quality Report*. Prepared by Water Control Department. Contributing efforts by Arizona State University. August.
- City of Buckeye (Buckeye). 2013. Town of Buckeye Application for Non-Indian Agricultural Priority Central Arizona Project Water. April 24.
- City of Buckeye (Buckeye). 2017. *City of Buckeye 2017 Integrated Water Master Plan Final*. June. Available at: <http://www.buckeyeaz.gov/wp-content/uploads/2017/07/Integrated%20Water%20Master%20Plan%202017.pdf>. Last accessed: February 5, 2018.
- City of Scottsdale. 2015. City Council Report for June 2, 2015 Meeting on Public Services and Facilities. Available at: <http://www.scottsdaleaz.gov/Asset58751.aspx>. Last accessed: April 25, 2016.
- Community Water Company of Green Valley (CWC). 2015. *Pipeline and Recharge Project Update May 2015*. Available at: <http://communitywater.com/pipeline-recharge-project-update-may-2015/>. Last accessed: April 25, 2016.
- Council on Environmental Quality (CEQ). 1997a. *Considering Cumulative Effects Under the National Environmental Policy Act*. January.
- Council on Environmental Quality (CEQ). 1997b. *Environmental Justice*. Guidance Under the National Environmental Policy Act. December 10.
- Freihoefer, A., D. Mason, P. Jahnke, L. Dubas, and K. Hutchinson. 2009. *Regional groundwater flow model of the Salt River Valley Phoenix Active Management Area, Model Update and Calibration: Arizona Department of Water Resources Modeling Report No. 19*. April.
- Fonseca, J. 2008. *Aquifer monitoring for groundwater-dependent ecosystems, Pima County, Arizona*. Pima County Natural Resources, Tucson, AZ.

- Freeport-McMoRan Copper and Gold, Inc. (Sierrita). 2013. Non-Indian Agricultural Priority Central Arizona Project Water Reallocation - Application of Freeport-McMoRan Sierrita Inc. for allocation for the Sierrita Mine, Pima County, Arizona, June 13.
- Freeport-McMoRan Copper and Gold, Inc. (Sierrita). 2015. Mitigation Performance Review for 2014, Mitigation Order of Consent Docket No. P-50-06. April 30.
- Freeport-McMoRan Copper and Gold, Inc. (Sierrita). 2016. Mitigation Performance Review for 2015, Mitigation Order of Consent Docket No. P-50-06. April 28.
- Freeport-McMoRan Copper and Gold, Inc. (Sierrita). 2017. 2016 Freeport – McMoran-Sierrita Inc. - Mitigation Facilities Monitoring Report. March 21.
- Garfin, G., G. Franco, H. Blanco, A. Comrie, P. Gonzalez, T. Piechota, R. Smyth, and R. Waskom. 2014. *Climate Change Impacts in the United States: The Third National Climate Assessment*, Ch. 20: Southwest. U.S. Global Change Research Programs.
- Hendricks, D.M. 1985. *Soils of Arizona*. University of Arizona, Tucson. Available at: <http://www.library.arizona.edu/exhibits/swetc/azso/index.html>. Last accessed: February 2, 2016.
- Hughson, D.L., D.E. Busch, S. Davis, S.P. Finn, S. Caicco, and P.S.J. Verburg. 2011. *Natural resource mitigation, adaptation and research needs related to climate change in the Great Basin and Mojave Desert: Workshop summary*. U.S. Geological Survey Scientific Investigations Report 2011-5103. Available at: <http://pubs.usgs.gov/sir/2011/5103>.
- Hundley, N. 1986. *The west against itself: the Colorado River – an institutional history. New Courses for the Colorado River – Major issues for the next century*. G.D. Weatherford and F.L. Brown, eds., University of New Mexico Press, Albuquerque, NM, 9-49.
- Intergovernmental Panel on Climate Change (IPCC). 2014. *Climate Change 2014: Synthesis Report*. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva, Switzerland. Last accessed: February 1, 2016.
- Johnson, R. 1977. *The Central Arizona Project 1918-1968*. Tucson, AZ: The University of Arizona Press.
- Kharin, V.V., F.W. Zwiers, X. Zhang, and G. Hegerl. 2007. *Changes in temperature and precipitation extremes in the IPCC ensemble of global coupled model simulations*. *Journal of Climate* 20:1419–1444.
- Lenart, M., G. Garfin, B. Colby, T. Swetnam, B.J. Morehouse, S. Doster, and H. Hartmann. 2007. *Global warming in the southwest*. The Climate Assessment Project for the Southwest (CLIMAS). The University of Arizona Institute for the Study of Planet Earth, Tucson, AZ.
- Lui, S., K. Nelson, D. Yunker, W. Hipke, and F. Corkhill. 2014. Regional groundwater flow model of the Pinal Active Management Area, Arizona, Model Update and Calibration: Arizona Department of Water Resources Modeling Report No. 26. February.

- Loehman, R. 2010. *Understanding the Science of Climate Change: Talking Points – Impacts to Arid Lands*. Natural Resource Report NPS/NRPC/NRR—2010/209. National Park Service, Fort Collins, Colorado. Available at:
<http://www.nps.gov/subjects/climatechange/upload/AridLandsTP.pdf>.
- Maricopa Association of Governments (MAG). 2013. *Socioeconomic Data*. Available at:
<https://www.azmag.gov/Projects/Project.asp?CMSID=1132&MID=Information%20Services>.
Last accessed: February 4, 2016.
- Maricopa County Comprehensive Plan. 2016. Available at:
<https://www.maricopa.gov/planning/pdf/vision-2030-plan.pdf>. Last accessed: February 4, 2016.
- Mason, D. and W. Hipke. 2013. Regional groundwater flow model of the Tucson Active Management Area, Arizona, Model Update and Calibration: Arizona Department of Water Resources Modeling Report No. 24. April.
- Montgomery and Associates (M&A). 2010. Technical Memorandum. *Modeling Results for Proposed Community Water Company of Green Valley Recharge*. January 27.
- National Park Service (NPS). 2015. *Cultural Resources Adaptation*. Available at:
<http://www.nps.gov/subjects/climatechange/adaptationforculturalresources.htm>. Last accessed: February 5, 2016.
- Northern Arizona University. 2016. *Native Plants of Arizona: Arizona Biomes*. Available at:
<http://jan.ucc.nau.edu/plants-c/bio414/>. Last accessed: April 18, 2016.
- Pima County Comprehensive Plan. 2015. Available at:
http://webcms.pima.gov/government/pima_prospers/. Last accessed: February 4, 2016.
- Pinal County Comprehensive Plan Update. 2014. Available at:
<http://pinalcountyyaz.gov/CommunityDevelopment/Planning/Documents/CompPlan/00%20Comprehensive%20Plan%202013.pdf>. Last accessed: February 4, 2016.
- Pontius, D. 1997. *Colorado River basin final report to the Western Water Policy Review Advisory Commission*. Springfield, VA.
- Resolution Copper Mining, LLC (Resolution). 2013. Application for Non-Indian Agricultural (NIA) Water Reallocation. Superior, AZ. June 14.
- Resolution Copper Mining, LLC (Resolution). 2016. General Plan of Operations Resolution Copper Mining. May 9.
- Rogge, A.E. 1983. *Little Archaeology, Big Archaeology: The Changing Context of Archaeological Research*. A doctoral dissertation submitted to the Department of Anthropology at the University of Arizona.
- Rosemont Copper Company (Rosemont). 2013. Non-Indian Agricultural Priority Water Reallocation Application for Rosemont Copper Company. June 13.

- Sahuarita Farms. 2016. Resources for the Master Plan for Sahuarita Farms. Available at: <http://www.sahuaritafarms.com/resources/>. Last accessed: April 25, 2016.
- U.S. Bureau of Reclamation (Reclamation). 1974. *Final Environmental Statement Granite Reef Aqueduct: A feature of Central Arizona Project*. Prepared by the Department of Interior Bureau of Reclamation Lower Colorado Region.
- U.S. Bureau of Reclamation (Reclamation). 1979. *Final Environmental Statement Salt-Gila Aqueduct: A feature of Central Arizona Project*. Prepared by the Department of Interior Bureau of Reclamation Lower Colorado Region.
- U.S. Bureau of Reclamation (Reclamation). 1982. *Final Environmental Statement Tucson Aqueduct-Phase A: A feature of Central Arizona Project*. Prepared by the Department of Interior Bureau of Reclamation Lower Colorado Region.
- U.S. Bureau of Reclamation (Reclamation). 1985. *Final Environmental Statement Tucson Aqueduct-Phase B: A feature of Central Arizona Project*. Prepared by the Department of Interior Bureau of Reclamation Lower Colorado Region.
- U.S. Bureau of Reclamation (Reclamation). 2010. *Community Water Company of Green Valley Central Arizona Project Water Delivery System Pima County, Arizona*. July.
- U.S. Bureau of Reclamation (Reclamation). 2012. *Colorado River Basin Water Supply and Demand Study, Study Report*. December.
- U.S. Bureau of Reclamation (Reclamation). 2018. *Final Environmental Assessment for the Construction of a Temporary Project to Reuse up to 7,000 Acre-Feet Annually of Effluent at a Groundwater Savings Facility in Pima County*.
- U.S. Bureau of Reclamation (Reclamation). 2018. *Final Environmental Assessment for the CAP Canal Trail- Town of Marana*.
- U.S. Bureau of Reclamation (Reclamation). 2019. *Final Environmental Assessment for the San Xavier Cooperative Farm Extension*.
- U.S. Bureau of Reclamation (Reclamation). 2019. *Final Environmental Assessment for a proposed exchange of CAP water between the GRIC and 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 the CAP Canal Trail- Town of Marana*.
- U.S. Census Bureau (USCB). 2014. Data from the American Community Survey, American Fact Finder online database. Available at: <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Last accessed: February 4, 2016.
- U.S. Department of Agriculture Forest Service (USFS). 2013. *Final Environmental Impact Statement for the Rosemont Copper Project A Proposed Mining Operation Coronado National Forest Pima County, Arizona*. Coronado National Forest. December.

- U.S. Department of the Interior (DOI). 2010. *The Colorado River Documents 2008*. Washington, D.C.
- U.S. Environmental Protection Agency (EPA). 1999. *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*. EPA 315-R-99-002. U.S. Environmental Protection Agency, Office of Federal Activities (2252A). May.
- USFWS. 2008. *Reinitiated Biological Opinion on Transportation and Delivery of Central Arizona Project Water to the Gila River Basin in Arizona and New Mexico and its Potential to Introduce and Spread Nonindigenous Aquatic Species*.
- U.S. Fish and Wildlife Service (FWS). 2018a. IPaC - Information for Planning and Conservation. Available at: <https://ecos.fws.gov/ipac/>. Last accessed: June 13.
- U.S. Fish and Wildlife Service (FWS). 2018b. Listed species information. Available at: https://ecos.fws.gov/tess_public/.
- Water Resources Development Commission (WRDC). 2011. Available at: http://www.azwater.gov/AzDWR/WaterManagement/WRDC_HB2661/Meetings_Schedule.htm.

Appendix A

Proposed Recipient Water Reallocation Applications

Appendix A consists of the Proposed Recipient Water Reallocation Applications. Because the applications are numerous, oftentimes lengthy, and not in a format suitable for optical character recognition, the applications were not made Section 508 accessible. Therefore, a link to the applications is provided below.

<http://www.azwater.gov/AzDWR/PublicInformationOfficer/Non-IndianAgriculturalReallocationProcess.htm>

Appendix B

ADWR Final Process and Evaluation Criteria

JANICE K. BREWER
Governor



SANDRA A. FABRITZ-WHITNEY
Director

ARIZONA DEPARTMENT OF WATER RESOURCES

Colorado River Management
3550 North Central Avenue, Second Floor
Phoenix, Arizona 85012-2105

Non-Indian Agricultural Priority Central Arizona Project Water Reallocation Final Process and Evaluation Criteria February 2013

Introduction and Goals

On December 10, 2004, the Arizona Water Settlements Act, Public Law 108-451 (Settlements Act), was enacted. The Settlements Act ratified the Arizona Water Settlement Agreement (Agreement) between the United States, the Arizona Department of Water Resources (Department), and the Central Arizona Water Conservation District (CAWCD) and provided for the reallocation of 96,295 acre-feet of Non-Indian Agricultural Priority Central Arizona Project Water (NIA Priority CAP water) for municipal and industrial uses in the state of Arizona

Both the Settlements Act and the Agreement required the Secretary of the Interior (Secretary) to reallocate the 96,295 acre-feet of NIA Priority water to the Department "to be held under contract in trust for further allocation."¹ Both the Settlements Act and the Agreement also specified that the Director of the Department shall submit a recommendation for reallocation to the Secretary, and any reallocation shall be based on the Director's recommendation or revised recommendation.² The Agreement further provided that the Department develop eligibility criteria and make the NIA Priority water available for reallocation "at periodic intervals, starting in 2010."³ On August 22, 2006, the Secretary reallocated the 96,295 acre-feet of NIA Priority water to the Department acknowledging that "before the water may be further allocated the Director of ADWR shall submit to the Secretary of the Interior a recommendation for reallocation."⁴

The Department has identified the following goals for this reallocation:

- 1) Reduce groundwater overdraft,
- 2) Provide an additional source of water to areas with limited physical availability of groundwater, and

¹ Settlements Act § 104(a)(2)(A); see also Agreement Paragraphs 3.1 and 9.3.1.

² Settlements Act § 104(a)(2)(C); see also Agreement Paragraph 9.3.4. The Department has traditionally provided recommendations of allocations of CAP water to the Secretary, consistent with its authority in A.R.S. § 45-107.

³ Agreement Paragraph 9.3.4.

⁴ *Notice of Modification to the Secretary of the Interior's Record of Decision, Publication of a Final Decision of CAP Water Reallocation*, 71 Fed. Reg. 50449, 50451 (Aug. 25, 2006).

- 3) Meet the near-term demands for existing municipal water providers (not including irrigation districts that serve non-irrigation uses) and industrial users of groundwater or Excess Central Arizona Project (CAP) water that have permanent demands.

The Department has received letters of interest for this reallocation water in volumes that exceed the amount available for reallocation and expects that a greater volume will be requested through the application process. Therefore, requested volumes may not be fully met for all applicants in this process.

This reallocation is for NIA Priority water which has a lower priority than Indian and Municipal and Industrial (M&I) Priority CAP water. This water is expected to have reduced availability, especially during times when Arizona is affected by shortage operations on the Colorado River. The Department's analysis of the average availability of this 96,295 af of NIA Priority water predicts that an average of about 64,000 af will be available over the next 100 years, assuming a moderate development schedule on the mainstem of the Colorado River. This availability is expected to reduce to an average of about 58,000 af after 2030 due to projected increases in use for all Colorado River water users. Within this average availability over the next 100 years, it is anticipated that this NIA water supply will be fully available in some years, partially available in other years, and in some years it will not be available at all. Recipients of this reallocation will need alternate water supplies and the necessary infrastructure to use those alternate water supplies in order to meet future firm demands in years of reduced or no availability of this NIA Priority water.

Structure of the Reallocation Process

The reallocation will be structured so that volumes of water will be available at periodic intervals as follows:

1. The Department will offer the 96,295 acre-feet of CAP NIA Priority entitlement to existing non-Indian M&I water providers and industrial water users in a tiered process with phases starting in 2013, 2021 and, if needed, in 2030. The timing will coincide with necessary actions required to meet requirements of the Agreement, as well as other considerations.

Different types of water users are eligible for this reallocation. Several different 'pools' have been created within this reallocation process to acknowledge these different types of water users and to allow applicants to compete more fairly within their own category.

2. First, the reallocation is divided between potential applicants within the three-county CAWCD service area (CAP service area), including the Central Arizona Groundwater Replenishment District (CAGRD), and potential applicants outside the CAP service area. The Agreement provides that the Department "shall make [NIA Priority water] available for reallocation to non-Indian M&I water users *within* the State of Arizona."⁵ Neither the Agreement, to which the State of Arizona, CAWCD, and Reclamation are parties, nor the Settlement Act limit the reallocation to the CAP service area.⁶ Allocating CAP water outside the CAP service area is also consistent with state statute and with previous allocations. Section 48-3707(A), A.R.S. provides that "Water users outside the district may contract for a water supply from the central Arizona project directly with the secretary or with the district on the basis of paying costs allocated by the secretary." In 1983, the Secretary allocated CAP water to 13 entities outside the CAP service area.⁷

⁵ Agreement, Paragraph 9.3.4.2 (emphasis added).

⁶ Compare Agreement, Paragraphs 9.3.4.3 and 9.3.4.4, in which the parties agreed to provide a right of first refusal for a volume of water in each of two specified areas.

⁷ 48 Fed. Reg. 12446, March 24, 1983.

3. The full reallocation volume of 96,295 af has been divided into these two pools. Water demand studies and population projections for 2020 were analyzed with the final assessment indicating that approximately 18% of the state's population will be outside of the CAP service area and 82% will be within the CAP service area. This ratio was applied to the full reallocation volume to derive the distribution of 78,962 af to be available within the CAP service area and 17,333 af available for outside of the CAP service area.
4. A pool of 12,000 af has been identified for Industrial water users within the CAP service area. This volume was determined by applying an average percentage of industrial water demands compared to municipal water demands to the pool of water available for reallocation within the CAP service area. This pool of water will be made available for the 2013 phase of the reallocation and is part of the CAP service area reallocation amount of 78,962 af.
5. A pool of 34,629 af has been identified for M&I water providers within the CAP service area and the CAGR. CAGR member service areas and water providers that serve member lands can compete in the process, as well as the CAGR itself. This pool of water will be made available for the 2013 phase of the reallocation and is part of the CAP service area reallocation amount of 78,962 af.
6. Another pool of 17,333 af has been identified for M&I water providers within the CAP service area and the CAGR and will be made available in the 2021 phase of the reallocation. This pool is also part of the CAP service area reallocation amount of 78,962 af.
7. The amount identified for outside of the CAP service area (17,333 af) will be offered in the 2021 phase of the reallocation. Anticipated applicants in this category have indicated that this timing will allow for the technical, engineering, and financial planning that may be required to utilize this water supply. Whether the resulting acquisition of the entitlement is diverted from the Colorado River or utilized in an exchange for other locally available surface water supplies with an entity that has a right to that water, the acquired entitlement can be used to augment existing M&I water supplies to address near-term water needs. The Department will develop selection criteria and process details in a timeframe closer to the initiation of this phase of the process.
8. The Agreement provides that M&I water providers serving two defined areas in the Pinal AMA (the Central Arizona Irrigation and Drainage District (CAIDD) area and the Maricopa Stanfield Irrigation and Drainage District (MSIDD) area, as defined in Exhibits 9.3.4.3 and 9.3.4.4 in the Agreement) have a right of first refusal to 7.8% of the water in each phase of the reallocation for each area, up to 7,500 af for each area. A total of 15,000 af has been reserved for water providers in the CAIDD area and the MSIDD area, with 4,313 af reserved for each area for the 2013 phase of the reallocation. This total 15,000 af is within the CAP service area and is a segregated pool of water within the CAP service area reallocation amount of 78,962 af.
9. The Agreement provides that beginning in 2021, the remaining amount of the 15,000 af reserved for water providers in the CAIDD and MSIDD areas (6,374 af), plus any of the 4,313 af that had been previously offered to the CAIDD and MSIDD areas separately that has not been contracted, will be offered for reallocation to all water providers within either of those two areas under criteria determined by the Department.
10. The Agreement further provides that beginning in 2030, any water held for first refusal by water providers within the CAIDD and MSIDD areas and not yet contracted will be offered to the Pinal County Water Augmentation Authority consistent with their right of second refusal.
11. If NIA Priority water (other than the 15,000 af held for first refusal by the CAIDD or MSIDD areas) is not contracted during the 2013 and 2021 phases, a second phase of the 2021 reallocation may be initiated. This remaining NIA Priority water and the water management needs of the state will be assessed, and the reallocation process and criteria for this remaining water will be determined at that time. The Department will develop selection criteria and process details at a time closer to the initiation of this phase of the process.

Selection Criteria for 2012 CAP Service Area Reallocation

The following criteria will be used to evaluate all applicants for the 2013 CAP service area reallocation phase of the NIA Priority Reallocation, unless otherwise specified.

1. Qualified applicants can include existing municipal providers (not including irrigation districts that serve non-irrigation uses) located within the CAP service area, industrial water users located within the CAP service area, and the CAGR D.
2. Qualified applicants must be able to demonstrate that the costs associated with acquiring and utilizing this supply have been analyzed and that there exists the ability and intention to meet these financial requirements.
3. Qualified applicants must demonstrate the ability to: (1) directly use this NIA Priority water, (2) store and recover, or (3) replenish this water in a manner consistent with the water management goals for the AMA.
4. Qualified applicants will need to provide a water management plan that demonstrates how they plan to utilize this water supply by 2020, and how they will manage the future shortages associated with this water supply. Applicants should describe the necessary infrastructure used to access this NIA Priority water supply. If an alternate water supply will be used, applicants shall discuss the source of this supply and the infrastructure to be used to access this alternate supply. All financial obligations associated with these water supplies and the necessary infrastructure shall be discussed within the financial analysis.
5. The Department will consider each applicant's Demand and Supply Imbalance projected for 2020 when recommending allocations. Demand and Supply Imbalance will be calculated by subtracting available renewable water supplies for 2020 from projected demands for 2020. Renewable supplies shall include all water supplies available to the applicant except groundwater and Excess CAP water. Applicants will be asked to submit their Demand and Supply Imbalance projections and the Department will substantiate the submittals using previously submitted and other available data commonly used in Department planning studies.
6. If an applicant's Requested Volume exceeds the Demand and Supply Imbalance for 2020, the Requested Volume will be reduced accordingly. For each pool of water identified for this phase of the reallocation, if the sum of all Requested Volumes for reallocation exceeds the available amount, the annual reallocation recommendation for each applicant will be distributed from the available reallocation amount on a pro-rata basis with the Requested Volumes of all qualified applicants in that pool.
7. For the CAIDD and MSIDD Pools (4,313 af each):
 - a. Municipal providers shall provide water to the CAIDD and/or the MSIDD areas identified in the Agreement Exhibits 9.3.4.3 and 9.3.4.4.
 - b. CAGR D is not eligible to compete for this pool of the reallocation.
 - c. Municipal providers serving the CAIDD area and/or the MSIDD area will be evaluated for an annual reallocation recommendation based on all of the criteria described in this document, including their Demand and Supply Imbalances for 2020.
 - d. If the Requested Volumes for these pools of water exceed the available amounts, the remaining Requested Volumes for each applicant will be included for evaluation under the Municipal Pool.

8. For the Industrial Pool (12,000 af):
 - a. Qualified industrial applicants will include currently authorized groundwater users and must demonstrate a Demand and Supply Imbalance for 2020 greater than 400 acre-feet per year.
 - b. Application requests must be for a specific use in a specified location.
 - c. An industrial user that receives water from a municipal provider may apply for this Industrial Pool of water if the requested amount is not also counted under the municipal provider's requested amount.
 - d. Applications will be evaluated based on the demonstration of the replacement of an actual groundwater use.
9. For the Municipal Pool (34,629 af):
 - a. Municipal providers, both public and private, and the CAGRD will be evaluated in the same pool.
 - b. The Demand and Supply Imbalance for the CAGRD will be calculated based on its projected actual 2020 replenishment obligation (not necessarily the Plan of Operation projection), not including its replenishment reserve requirements.
 - c. If a member service area or water provider serving a member land specifies that an allocation of this NIA Priority water will be used to reduce its reported Excess Groundwater use to the CAGRD and is recommended to receive part of this NIA Priority water, CAGRD's Demand and Supply Imbalance will be reduced accordingly.

Appendix C

Public Scoping Newsletter and Mailing List



Scoping Newsletter 1 November 2015

The Bureau of Reclamation (Reclamation), in cooperation with the Arizona Department of Water Resources (ADWR) and the Central Arizona Water Conservation District (CAWCD), is preparing an environmental assessment (EA) to act upon the recommendation by ADWR for the proposed reallocation of 46,629 acre-feet annually (AFA) of non-Indian agricultural (NIA) priority water to municipal and industrial (M&I) users in the Phoenix, Pinal, and Tucson Active Management Areas (AMAs) within the Central Arizona Project (CAP) service area. The Arizona Water Settlements Act of 2004 outlines that this water can be reallocated to M&I users upon approval by the Secretary of the Department of the Interior (Secretary). The reallocation of this water is needed to help AMAs meet their targets for reducing groundwater overdraft, while still developing their economies.

The EA is being prepared to meet the requirements of the National Environmental Policy Act (NEPA). The EA will help Reclamation and the Secretary understand the effects the proposed reallocations will have on the environment and natural resources. The EA, and any public comments received on its adequacy in describing the anticipated effects, will be considered prior to a decision being made whether or not to approve ADWR's recommendation for the proposed reallocations.

Under NEPA, the first phase in preparing an EA is to conduct "scoping." The purpose of scoping is to identify the environmental issues associated with the proposed project. Reclamation is asking the public for comments to help determine the scope of the analysis to be contained in the EA. Please send your thoughts, ideas, and concerns regarding the recommendation for proposed water reallocation and the issues that should be analyzed in the EA to Reclamation by December 18, 2015.

Reclamation is hosting three public meetings and open houses (December 8, 9, and 10, 2015) to provide the public with information on the proposed approval of ADWR's recommendation for water reallocation and an opportunity to submit written and oral comments directly to Reclamation. One meeting will be held in each of the AMAs where proposed recipients are located: Phoenix, Pinal County, and Tucson. The scoping meetings schedule is below. The open house portion of each meeting will be from 4:30 pm to 6:30 pm. Brief presentations from Reclamation regarding the EA process and from ADWR and CAWCD regarding the proposed project will begin at 4:30 pm, followed by the opportunity for the public to provide oral and/or written testimony, to view resource-specific information, and to ask

questions about specific resources and the NEPA process. Oral testimony will be limited to three minutes per person. A court reporter will be on hand to record comments.

We encourage you to attend one of the open houses and to share your scoping comments with Reclamation.

PROJECT DESCRIPTION

Historically, Arizona has relied heavily on groundwater to meet demand, resulting in overdraft of groundwater supplies, particularly in the central and southern parts of the state. Groundwater depletion is a serious issue that impacts drinking water quality, domestic water availability, economic growth, agricultural production, and environmental sustainability. Colorado River water delivered through the CAP plays an important role in reducing groundwater overdraft in the Phoenix, Pinal County, and Tucson communities by reducing groundwater use and providing a renewable source for groundwater recharge.

The CAP canal is 336 miles long, beginning at Lake Havasu on Arizona's western border at the Colorado River and terminating just south of Tucson. The CAP delivers about 1.5 million acre-feet annually (MAFA) of Colorado River water per year to Arizona's cities and towns, agricultural users, industries, and American Indian tribes and communities. An acre-foot (AF) is about the amount of water a family of four consumes in one year. The CAP was authorized by Congress in 1968 and was constructed between 1973 and 1993. The CAP is operated by the CAWCD and is overseen by an elected board of directors from Maricopa, Pima, and Pinal counties.

Since 1968, the Secretary has made multiple recommendations regarding the allocation of water for M&I, NIA, and Indian uses. Notably, in 1983, Secretary James Watt signed a Record of Decision published in the Federal Register (48 Fed. Reg. 12446) that identified specific amounts of CAP water to be allocated to M&I, NIA, and Indian users.

After the 1983 allocation recommendation, a total of 65,647 acre-feet annually (AFA) of M&I priority water, and 96,295 AFA of NIA priority water was not contracted. Therefore, the water was available for reallocation at a later time. The Arizona Water Settlements Act of 2004 (AWSA) was passed by Congress, establishing a final allocation of this available water. Under AWSA, a reallocation of the 65,647 AFA of previously uncontracted M&I priority water went to 20 specific M&I entities. Moreover, the Secretary made available 96,295 AFA of NIA priority water to ADWR to be held in trust for future allocation.

In 2012 ADWR began a reallocation process for 46,629 AFA of NIA priority water held in trust under the AWSA. They held public meetings and accepted applications from M&I users. The applications were reviewed and evaluated under specific criteria, with four primary goals:

- reduce groundwater overdraft
- provide additional water sources to areas with limited physical availability of groundwater
- meet current and future water demands
- meet the near-term demands for existing municipal water providers and industrial users of groundwater or excess CAP water that have permanent demands.

The Secretary will use the information from the NEPA process to make her decision regarding whether to accept or reject the ADWR recommendation.



PURPOSE AND NEED FOR THE PROJECT

Purpose

The AWSA obligates the Secretary to approve or reject ADWR's recommendation for reallocation. The purpose of the EA is to provide all the relevant information to the Secretary in a single, clear, and concise way so she can make an informed decision to accept or reject the recommendation and reallocate the NIA priority water. The purpose of the proposed action is to reallocate NIA Priority CAP water for M&I use pursuant to the AWSA and according to ADWR's recommendation.

Based on ADWR's recommendation, the proposed action would allow the reallocation of 46,629 AFA of NIA Priority CAP water to M&I users within the Phoenix, Pinal, and Tucson AMAs (see map).

Need

The need for the water reallocation is to address the continuing imbalance of water supply and demand in central Arizona, specifically the overdraft of groundwater in the Phoenix and Tucson AMAs. While Arizona's population has increased by 157 percent between 1980 and 2010 (ADWR 2015), statewide water use has either declined or remained constant at approximately 7 MAFA per year. This is attributed to retirement of agricultural lands, reclaimed water use, conservation efforts, and water management initiatives. Although water use has declined or remained constant, continued population growth in the state will eventually result in an overall water supply shortfall. Because of population growth, the projected statewide water demand will increase to between 8.1 and 8.6 MAFA by 2035 and to between 8.6 and 9.1 MAFA by 2060 (Water Resources Development Commission (WRDC) 2011).

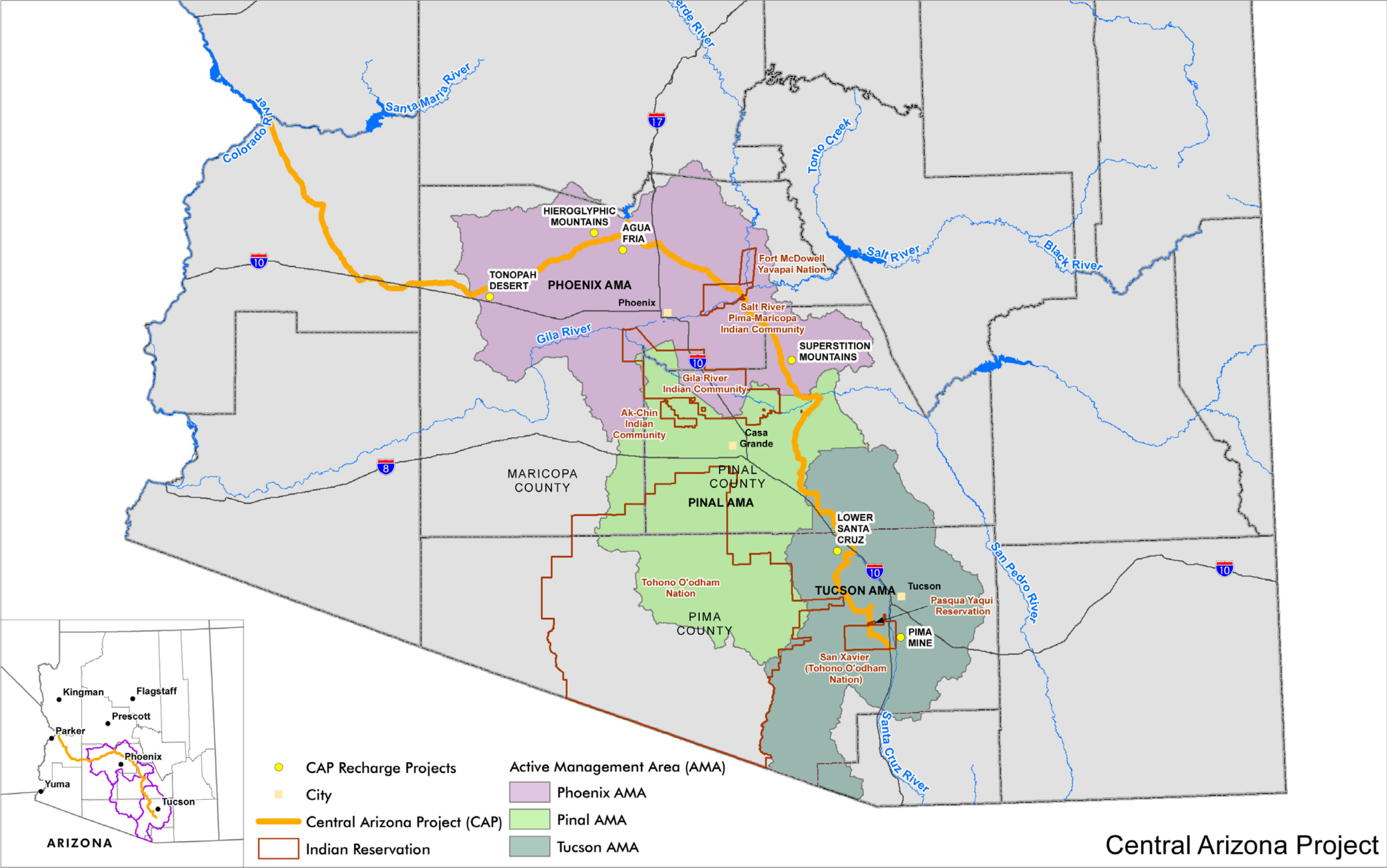
In 2006, municipal water demand was measured at 1.6 MAFA, which was 25 percent of all state water demand. The WRDC (2011) estimates that municipal demand will increase to roughly 2.7 MAFA by 2035 and 3.4 MAFA by 2060. Industrial uses account for approximately 6 percent of Arizona's water supply (about 400,000 AFA) and are also expected to increase over time to sustain economic growth. While these projections are based on high estimates of population growth, Arizona's urban populations are expected to grow even if economic growth is slower than expected. Between 0.9 and 3.2 MAFA of water will need to be developed in Arizona over the next 20 years to sustain population growth and meet consumption demands.



If the proposed action is approved, users within the Phoenix, Pinal, and Tucson AMAs would receive the reallocated NIA priority water. The Phoenix and Tucson metropolitan areas account for about 80 percent of Arizona's population and are expected to continue to be the major population centers, while Pinal County is currently dominated by an agricultural economy (Arizona Department of Economic Security 2012). The primary goal for the Phoenix and Tucson AMAs is to achieve a balance between the pumping and the replenishment of groundwater by 2025, so that groundwater resources are not depleted. The primary goals for the Pinal AMA are to develop nonirrigation uses of water, preserve the agricultural economy, and conserve water for future nonirrigation use.

Both Phoenix and Tucson continue to experience annual overdraft of groundwater supplies after renewable supplies are considered, including water currently allocated from CAP and offsets to groundwater pumping. The proposed action would contribute to the ADWR goal of reducing groundwater overdraft by increasing renewable surface water supplies that can be used for consumption and for recharging groundwater sources.

Project Area Map

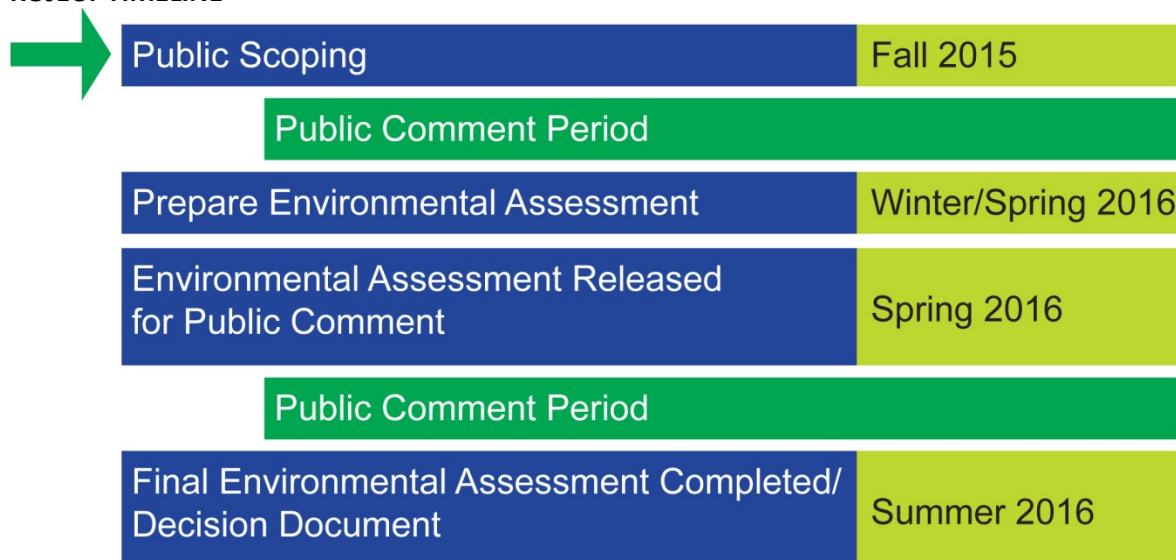


Central Arizona Project

PROPOSED RECIPIENTS

Recipient	Pool	Volume (acre-feet (AFA)/year)
Carefree Water Company	Municipal	112
Metropolitan Domestic Water Improvement District	Municipal	299
Town of Cave Creek	Municipal	386
EPCOR- Sun City West	Municipal	1,000
H ₂ O Water Company-Town of Queen Creek	Municipal	1,000
Town of Marana	Municipal	515
Apache Junction WUCFD	Municipal	817
City of El Mirage	Municipal	1,318
Town of Gilbert	Municipal	1,832
City of Buckeye	Municipal	2,786
Town of Queen Creek	Municipal	3,162
Johnson Utilities	Municipal	3,217
Central Arizona Groundwater Replenishment District	Municipal	18,185
Viewpoint RV and Golf Resort	Industrial	400
New Harquahala Generating Company	Industrial	400
Rosemont Copper Co.	Industrial	1,124
Salt River Project	Industrial	2,160
Resolution Copper Mining	Industrial	2,238
Freeport-McMoRan- Sierrita Inc.	Industrial	5,678
Total Volume (AFA/year)		46,629

PROJECT TIMELINE



HOW TO PROVIDE SCOPING COMMENTS

Reclamation requests your input to identify issues or concerns that should be analyzed in the EA for the proposed reallocation of CAP water. You can provide comments in two ways:

1. Attend one of the scoping open houses and provide written and/or oral comments to Reclamation staff there.
2. Send written comments to:

U.S. Department of the Interior, Bureau of Reclamation
Phoenix Area Office
Attn: Kimberly Musser (PXAO-1500)
6150 West Thunderbird Road
Glendale, AZ 85306-4001
E-mail: cap_NIA@eroresources.com

Please include your address, phone number, and e-mail address in your comment.

You should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. Please submit all comments by December 18, 2015. For questions regarding the EA process, please contact:

Kimberly Musser at (623) 773-6216 or kmusser@usbr.gov.

ADDITIONAL INFORMATION

Additional information regarding the proposed NIA CAP system water reallocation recommendation can be found on or requested through Reclamation's website:

<http://www.usbr.gov/lc/phoenix/>

Information about the background of the CAP can be found at:

<http://www.cap-az.com/>

Information about the Arizona Water Settlements Act of 2004, which provides the legal basis for the proposed project can be found at:

<http://www.azwater.gov/AzDWR/SurfaceWater/Adjudications/AZWaterSettlements.htm>

Information about ADWR's process for making recommendations for the proposed reallocation can be found at:

<http://www.azwater.gov/AzDWR/PublicInformationOfficer/Non-IndianAgriculturalReallocationProcess.htm>

REFERENCES

Arizona Department of Economic Security (ADES) 2012. Employment and Population Statistics: Medium Series Population Projections, 2012-2050. Available at: <https://population.az.gov/population-projections>.

Arizona Department of Water Resources (ADWR). 2014. Arizona's Next Century: A Strategic Vision for Water Supply Sustainability (Strategic Vision) (http://www.azwater.gov/AzDWR/Arizonas_Strategic_Vision/).

Water Resource Development Commission (WRDC). 2011. Final Report. Available at: http://www.azwater.gov/AzDWR/WaterManagement/WRDC_HB2661/documents/WRDCFinalReportVolumel.pdf.

OPEN HOUSE SCHEDULE

Phoenix

December 8, 2015

4:30 to 6:30 PM

Kenilworth Elementary School Auditorium
1210 N 5th Ave
Phoenix, AZ 85003

Casa Grande

December 9, 2015

4:30 to 6:30 PM

Casa Grande Middle School Auditorium
300 W McMurray Blvd
Casa Grande, AZ 85122

Tucson

December 10, 2015

4:30 to 6:30 PM

Valencia Public Library Large Meeting Room
202 W Valencia Rd
Tucson, AZ 85706



U.S. Department of the Interior, Bureau of Reclamation
Phoenix Area Office
6150 West Thunderbird Road
Glendale, AZ 85306-4001

Addressee
National Park Service Department of the Interior 2120 North Central Ave., Suite 120 Phoenix, AZ 85004-1455
Sallie McGuire Chief AZ Section, Regulatory Branch U.S. Army Corps of Engineers 3636 North Central Avenue, Suite 760 Phoenix, AZ 85012-1936
Chief Tucson District U.S. Geological Survey 520 North Park Avenue, Suite 221 Tucson, AZ 85719
Dr. James Leenhouts Water Resources Division U.S. Geological Survey 520 N Park Av Ste 22 Tucson, AZ 85719-5075
District Manager Desert SW Regional Office Western Area Power Administration P.O. Box 6457 Phoenix, AZ 85005
Supervisor Tonto National Forest USDA Forest Service 2324 E. McDowell Rd Phoenix, AZ 85006-2440
Director Raymond Suazo Arizona State Office Bureau of Land Management 1 N. Central Ave Ste 800 Phoenix, AZ 85004-4427
Mr. Jim Rorabaugh U.S. Fish and Wildlife Service 201 N Bonita Ste 141 Tucson, AZ 85745-3053
Mr. Steve Spangle Arizona Ecological Services Field Office U.S. Fish and Wildlife Service 2321 W Royal Palm Rd Ste 103 Phoenix, AZ 85021-4974
Jean Calhoun US Fish & Wildlife Service Tucson Sub-Office 201 N. Bonita, Suite 141 Tucson, AZ 85745
Greg Beatty US Fish & Wildlife Service 2321 W. Royal Palm Road, Suite 103 Phoenix, AZ 85021
David Schweikert

U. S. House of Representatives 10603 N. Hayden Rd Ste 108 Scottsdale, AZ 85260-5571
Honorable Raul Grijalva Congressman 810 East 22nd St., Suite 102 Tucson, AZ 85713
Honorable John McCain Senator 407 West Congress St., Suite 103 Tucson, AZ 85701
The Honorable Jeff Flake Senator 2200 East Camelback Road Suite 120 Phoenix, AZ 85016
Honorable Paul Gosar Congressman Arizona 4 th District 122 N. Cortez Street, Suite 104 Prescott, AZ 86301
Matt Salmon Congressman Arizona 5 th District 207 North Gilbert Road, Suite 209 Gilbert, AZ 85234
Honorable Ruben Gallego Congressman Arizona 7 th District 411 N. Central Ave Suite 150 Phoenix, AZ 85004
Honorable Trent Franks Congressman Arizona 8 th District 7121 West Bell Road Suite 200 Glendale, AZ 85308
Honorable Kyrsten Sinema Congresswoman Arizona 9 th District 2944 N. 44th Street Suite 150 Phoenix, AZ 85018
Director AZ Department of Environmental Quality 1110 West Washington St. Phoenix, AZ 85007
Amanda Stone Director, Southern District AZ Department of Environmental Quality 400 W. Congress, Suite 433 Tucson, AZ 85701
Director AZ Game & Fish Department 5000 West Carefree Highway

Phoenix, AZ 85086-5000
Nongame Branch Chief AZ Game & Fish Department 5000 W Carefree Hwy Phoenix, AZ 85086-5000
Mr. Jeff Sorensen Native Fish and Invertebrates Program Manager AZ Game & Fish Department 5000 W Carefree Hwy Phoenix, AZ 85086-5000
Director AZ State Lands Department 1616 West Adams Phoenix, AZ 85007
Southern Arizona Office AZ State Lands Department 177 North Church Ave., Suite 1100 Tucson, AZ 85701
Governor State of Arizona State Capitol Building 1700 West Washington Phoenix, AZ 85007
State Engineer's Office AZ Dept of Transportation 206 South 17th Ave., Rm 131A, MD102A Phoenix, AZ 85007
State Historic Preservation Officer AZ State Parks 1300 W. Washington St Phoenix, AZ 85007-2828
Mr. Thomas Buschatzke Director AZ Department of Water Resources 3550 N Central Ave Phoenix, AZ 85012-2100
Mr. C. H. Huckelberry County Administrator Pima County 130 West Congress St., 10th Fl. Tucson, AZ 85701
Office of the Mayor and Council Town of Sahuarita 375 West Sahuarita Center Way Sahuarita, AZ 85629
Town Manager Town of Sahuarita P.O. Box 879 Sahuarita, AZ 85629
Michael Ortega City Manager City of Tucson 255 W. Alameda P.O. Box 27210 Tucson, AZ 85726-7210

<p>Greg Stanley County Manager Pinal County 31 N. Pinal Street Florence, AZ 85132</p>
<p>Tom Manos County Administrator Maricopa County 301 W. Jefferson, 10th Floor Phoenix, Arizona 85003</p>
<p>City of Goodyear Mark Holmes, Water Resources Manager PO Box 5100 Goodyear, AZ 85338</p>
<p>City of Goodyear Bob Beckley, Deputy City Manager 190 North Litchfield Road Goodyear, AZ 85338</p>
<p>City of Peoria Robin E. Bain, Environmental Resources Manager 8401 W. Monroe Street Peoria, AZ 85345</p>
<p>City of Peoria Alan R. Dulaney, Water Policy Administrator 8401 W. Monroe Street Peoria, AZ 85345</p>
<p>City of Surprise Angela Lucci 16000 North Civic Center Plaza Surprise, AZ 85374</p>
<p>City of Surprise Christine Nunez 16000 North Civic Center Plaza Surprise, AZ 85374</p>
<p>City of Tempe Eric Kamienski, Water Resources Manager Tempe Public Works Department – Water Utilities 255 East Marigold Lane Tempe, AZ 85281</p>
<p>Water Utilities Community Facilities District Frank Blanco, Water District Director Apache Junction Water District PO Box 4768 Apache Junction, AZ 85178-0014</p>
<p>City of Buckeye Ron Whitler, Water Resources Department 423 Arizona Eastern Avenue Buckeye, AZ 85326</p>
<p>Town of Gilbert Hakon Johanson, Water Resources Manager 50 E. Civic Center Drive Gilbert, AZ 85296</p>
<p>EPCOR-Sun City West Jake Lenderking, Water Resources Manager 2355 W. Pinnacle Peak Road, Suite 300</p>

Phoenix, AZ 85027
Johnson Utilities Daniel Hodges 5320 E. Shea Blvd, Ste. 200 Scottsdale, AZ 85254
Johnson Utilities Copy: Carlos D. Ronstadt The Law Office of Carlos D. Ronstadt, PLLC 7000 N. 16 th St., Suite 120, No. 510 Phoenix, AZ 85020-5547
City of El Mirage Larry Dobrosky, Dep. City Manager/PW Director 12145 NW Grand Avenue El Mirage, AZ 85335
Town of Queen Creek Paul T. Gardner, Utilities Director 50 S. Ellsworth Road Queen Creek, AZ 85142
Town of Marana John Kmiec, Utilities Director 5100 W. Ina Road Marana, AZ 85743
Town of Cave Creek Jessica Marlow, PE, Utilities Manager 37622 N. Cave Creek Road Cave Creek, AZ 85331
Carefree Water Company Greg Crossman, General Manager PO Box 702 Carefree, AZ 85377
General Manager Central Arizona Water Conservation District P.O. Box 43020 Phoenix, AZ 85080-3020
Pima County Regional Flood Control District 97 East Congress St., 3rd Floor Tucson, AZ 85701
Jackson Jenkins Director Pima County Regional Wastewater Reclamation Department 201 N. Stone, 8th Floor Tucson, AZ 85701
Joe Olsen General Manager Metropolitan Domestic Water Improvement District 6265 N. La Canada Tucson, AZ 85704
Suzanne Shields Director Pima County Regional Flood Control District 97 E. Congress, 3rd Floor Tucson, AZ 85701
Dennis Rule Director Central Arizona Groundwater Replenishment District

P.O. Box 43020 Phoenix, AZ 85080-3020
David Bateman General Manager Cortaro-Marana Irrigation District 12253 W Grier Rd Marana, AZ 85653
General Manager Salt River Project PO Box 52025 Phoenix, AZ 85072-2025
Ron McEachern District Manager Central Arizona Irrigation and Drainage Distric (CAIDD) P. O. Box 605 231 S. Sunshine Blvd. Eloy, Arizona 85131
Brian Betcher, P.E. General Manager Maricopa-Stanfield Irrigation & Drainage District 41630 West Louis Johnson Drive Maricopa, AZ 85239
Joe Singleton Executive Director Pinal County Water Augmentation Authority PO Box 12684 Casa Grande, Arizona 85130
Kathleen Ferris Executive Director Arizona Municipal Water Association 3003 N. Central Ave., Suite 1550 Phoenix, AZ 85012
Warren Tenney President Southern Arizona Water Users' Association PO Box 35481 Tucson, AZ 85740-5481
Central Arizona Groundwater Replenishment District Perri Benemelis PO Box 43020 Phoenix, AZ 85080
Metropolitan Domestic Water Improvement District Mark R. Stratton, P.E. PO Box 36870 Tucson, AZ 85740
Metropolitan Domestic Water Improvement District Michael Block PO Box 36870 Tucson, AZ 85740
Center for Biological Diversity P.O. Box 710 Tucson, AZ 85702-0710
Arizona Wildlife Federation P.O. Box 51510 Mesa, AZ 85208

<p>Maricopa Audubon Society PO Box 15451 Phoenix, AZ 85060-5451</p>
<p>Arizona Riparian Council Juile Ann Wrigley Global Institute of Sustainability Arizona State University PO Box 875402 Tempe, AZ 85287-5402</p>
<p>Desert Rivers Audubon 1121 N. Terrace Rd Chandler, AZ 85266-8230</p>
<p>Kendall Kroesen Urban Program Manager Tucson Audubon Society 300 E University Blvd, #120 Tucson, AZ 85705</p>
<p>Emily Brott Sonoran Institute 44 E. Broadway Blvd, Suite 350 Tucson, AZ 85701</p>
<p>Arizona Chapter The Nature Conservancy 1510 East Fort Lowell Tucson, AZ 85719</p>
<p>Defenders of Wildlife 1101 14th Street NW, Suite 1400 Washington, DC 20005</p>
<p>Rincon Group Sierra Club 738 North 5th Ave., #214 Tucson, AZ 85705</p>
<p>Director Western Regional Office Bureau of Indian Affairs 400 North 5th Street Two Arizona Center, 12th Floor, MS100 Phoenix, AZ 85004</p>
<p>Honorable Phyllis Juan Chairperson Schuk Toak District Tohono O'odham Nation P.O. Box 368 Sells, AZ 85634</p>
<p>Honorable Edward D. Manuel Chairperson Tohono O'odham Nation P.O. Box 837 Sells, AZ 85634</p>
<p>Honorable Austin Nunez Chairperson Tohono O'odham Nation San Xavier District 2018 West San Xavier Road Tucson, AZ 85746</p>

Honorable Marla Kay Henry Chairperson Chichut Kuk District Tohono O'odham Nation PO Box 837 Sells, AZ 85634-0837
Honorable Peter Yucupicio Chairperson Pascua Yaqui Tribe 7474 South Camino De Oeste Tucson, AZ 85757
Honorable Delbert W. Ray, Sr. President Salt River Pima-Maricopa Indian Community 10005 E. Osborn Blvd Scottsdale, AZ 85256-4019
Honorable Vivian L. Burdette Chairperson Tonto Apache Tribe Reservation 30 Payson, AZ 85541
Honorable Ernest Jones, Sr. President Yavapai Prescott Indian Tribe 530 E. Merritt St Prescott, AZ 86301-2038
Honorable Ruben Balderas President Fort McDowell Yavapai Nation PO Box 17779 Fountain Hills, AZ 85269-7779
Honorable Thomas Beauty Chairperson Yavapai Apache Nation PO Box 1248 Camp Verde, AZ 85322-1248
Ms. Brenda Astor Superintendent Bureau of Indian Affairs San Carlos Apache Agency PO Box 209 San Carlos, AZ 85550-0209
Maxine Norris-Lopez Acting Executive Director San Xavier Allottee Association, Inc. 325 E. Vamori St. Tucson, AZ 85756
Mr. Charles Lewis Bureau of Indian Affairs Western Region – Environmental Quality Services 2600 N. Central Avenue, Fourth Floor Mailroom Phoenix, AZ 85004
Superintendent Hopi Agency Bureau of Indian Affairs

PO Box 158 Keams Canyon, AZ 80634
Honorable Herman G. Honanie Chairman Hopi Tribe PO Box 123 Kykotsmovi, AZ 86039
Honorable Louis J. Manuel Chairman Ak Chin Indian Community 42507 W. Peters & Nall Rd. Maricopa, AZ 85238
Honorable Gregory Mendoza Governor Gila River Indian Community P.O. Box 97 Sacaton, AZ 85147
Honorable Terry Rambler Chairperson San Carlos Apache Tribe PO Box 0 San Carlos, AZ 85550
Mr. Peter Steere Historic Preservation Officer Tohono O'odham Tribal Council PO Box 837 Sells, AZ 85634-0837
Barnaby V. Lewis Historic Preservation Officer Gila River Indian Community PO Box 2140 Sacaton, AZ 85147
Vernelda Grant, Director Historic Preservation and Arch Department San Carlos Apache Tribe PO Box 0 San Carlos, AZ 85550
Tim Gibson, Water Resources Manager Land and Water Department Freeport Minerals Corporation 333 N. Central Ave., Phoenix, AZ 85004
Ms. Rebecca Wilder Public Involvement Officer Arizona Corporate Commission 1300 West Washington 1 st Floor Phoenix, AZ 85007-2929
Viewpoint RV and Golf Resort Scott Brown 8700 E. University Rd Mesa, AZ 85207
Salt River Project Marc Campbell, Sr. Water Rights Analyst PO Box 52025 PAB 110 Phoenix, AZ 85072-2025

<p>Rosemont Copper Co. James A. Sturgess, Vice President 4500 Cherry Creek Drive South, Suite 1040 Denver, CO 80246</p>
<p>Rosemont Copper Co. Michael J. Pearce Maguire & Pearce PLLC 2999 N. 44th Street, Suite 630 Phoenix, AZ 85018</p>
<p>Resolution Copper Mining David Stanley, Acting Manager of Infrastructure 102 Magma Heights Superior, AZ 85173</p>
<p>New Harquahala Generating Company Tim Wisdom, Plant Manager Ryan DeGraff, Operations Manager 2530 N. 491st Avenue PO Box 727 Tonopah, AZ 80246</p>
<p>New Harquahala Generating Company Rita P. Maguire, Michael J. Pearce Maguire & Pearce PLLC 2999 N. 44th Street, Suite 630 Phoenix, AZ 85018</p>
<p>New Harquahala Generating Company Steven W. Bloch Capitol Strategies, LLC 1702 E. Highland Ave. Ste. 204 Phoenix, AZ 85016</p>
<p>Freeport McMoRan Sierrita Inc. Chad D. Fretz, Sr. Administration Manager 6200 W. Duval Mine Rd. PO Box 527 Green Valley, AZ 85622-0527</p>
<p>Alex M. Richards, Water Resources Manager Freeport-McMoRan Copper & Gold Inc. 333 N. Central Avenue Phoenix, AZ 85004</p>
<p>Shilpa Hunter-Patel, Esq. Senior Counsel – Water Freeport-McMoRan Copper & Gold Inc. 333 N. Central Avenue Phoenix, AZ 85004</p>
<p>Upper Santa Cruz/Providers-Users Group 17400 South Camino Confianza Sahuarita, AZ 85629</p>
<p>Ms. Nancy Freeman Groundwater Awareness League P.O. Box 934 Green Valley, AZ 85622</p>

**Phoenix Area Office
Glendale, Arizona**

Contact: Rose Davis (702) 293-8421

Kimberly Musser (623) 773-6216

For Immediate Release: January 5, 2016

Reclamation Seeking Public Comments on Proposed Reallocation of Non-Indian Agricultural Water within the Central Arizona Project System

Phoenix, Ariz. – The Bureau of Reclamation’s Phoenix Area Office (Reclamation) announced today that it is continuing to seek public comments on the proposed reallocation of non-Indian agricultural water within the Central Arizona Project system. In October 2015, Reclamation, in cooperation with the Arizona Department of Water Resources (ADWR) and the Central Arizona Water Conservation District, began preparing an Environmental Assessment (EA) for a proposed reallocation of 46,629 acres of non-Indian agricultural water for use by municipal and industrial users in the Phoenix, Pinal, and Tucson Active Management Areas (AMAs).

The reallocation of the subject water would be used by the AMA’s to augment their existing water supplies, which are located within the Central Arizona Project service area, and to help these users meet their targets for reducing groundwater overdraft, while still developing their economies. The proposed reallocation is based on a prior recommendation provided by the ADWR.

The Arizona Water Settlements Act of 2004 outlines that this water can be reallocated to municipal and industrial users upon approval by the Secretary of the Interior (Secretary). The EA is being prepared to meet the requirements of the National Environmental Policy Act. The EA will help Reclamation and the Secretary understand the effects the proposed reallocations will have on the environment and natural resources, and will inform the Secretary’s decision on whether to approve the proposed reallocations based on ADWR’s recommendation.

Reclamation is currently seeking public input regarding the potential impacts of the proposed action, the alternatives that should be considered, and other concerns and issues that should be addressed in the EA.

Anyone desiring to submit comments on the proposed recommendations should send them by postal mail to Reclamation’s Phoenix Area Office, 6150 W. Thunderbird Rd., Glendale, AZ 85306, Attn: PXAO-1500, or via facsimile to (623) 773-6486 by January 18, 2016. Submitted comments on the proposed recommendations are available for public review at any time. A public scoping newsletter with additional information on this proposed action is available on the Phoenix Area Office website at: <http://www.usbr.gov/lc/phoenix/>

###

Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits.

Appendix D

Proposed Recipient Scoping Letter and Agenda

November 3, 2015

Name
Title
Address
Address

Dear Proposed Recipient,

The Bureau of Reclamation (Reclamation) invites you to attend a scoping meeting for the proposed recipients of Central Arizona Project (CAP) water to be reallocated from non-Indian agricultural (NIA) use to municipal and industrial (M&I) use under the Arizona Water Settlement Act of 2004 (AWSA). Proposed Recipients, which includes your entity, are the M&I applicants that the Arizona Department of Water Resources (ADWR) has recommended to receive CAP water under the proposed reallocation. The AWSA outlines that this water can be reallocated to M&I users upon approval by the Secretary of the Department of the Interior (Secretary).

As you are aware, ADWR began the process of reallocating 46,629 acre-feet annually (AFA) of the 96,295 AF of NIA priority water held in trust to non-Indian M&I water users within the State of Arizona in 2012, with scoping meetings and the opportunity for stakeholders to comment on the proposed reallocation process. ADWR received applications from M&I entities to receive the reallocated water in 2013 and has drafted its recommendation for the Secretary. This scoping meeting initiates the National Environmental Policy Act (NEPA), compliance with which is necessary for the Secretary to approve the recommendations and for the water to be reallocated to Arizona's cities, towns, and industries.

Reclamation is preparing an environmental assessment (EA) to provide the NEPA compliance needed to act upon the recommendation made by ADWR for the proposed reallocation of NIA water to M&I users in the Phoenix, Pinal, and Tucson Active Management Areas within the CAP service area. The EA will help Reclamation and the Secretary understand the effects the proposed reallocations will have on the environment and natural resources, and will inform the Secretary's decision, or her designee, whether to approve the proposed reallocations based on ADWR's recommendation.

Under NEPA, the first phase in preparing an EA is to conduct "scoping." The purpose of scoping is to identify the environmental issues associated with the proposed project. Reclamation is now asking you, the proposed recipients of the reallocated water, for comments and feedback to help determine the scope of the analysis to be included in the EA.

Meeting details are as follows:

Date: Monday, December 7
Time: 1:30 to 3:30 PM
Location: Burton Central Library, Lecture Hall
1221 N. Central Avenue
Phoenix, Arizona 85004

During the meeting, Reclamation, ADWR, and Central Arizona Water Conservation District will give important information about the recommended reallocations and the environmental compliance process that is ahead. You will also have the opportunity to view exhibits and provide verbal and/or written comments. Please plan on having at least one representative from your entity attend the meeting. **Please RSVP to Kimberly Musser at kmusser@usbr.gov by November 30, 2015.**

Sincerely,

Leslie Meyers, Area Manager
U.S. Department of the Interior, Bureau of Reclamation

**ENVIRONMENTAL ASSESSMENT TO EVALUATE ARIZONA DEPARTMENT OF WATER
RESOURCES RECOMMENDATION FOR THE REALLOCATION OF NON-INDIAN
AGRICULTURE WATER IN ACCORDANCE WITH THE
ARIZONA WATER SETTLEMENTS ACT OF 2004
PROPOSED RECIPIENT SCOPING MEETING AGENDA**

Monday, December 7, 2015

1:30 – 3:30 PM MST

Meeting Purpose: Scoping meeting for the Proposed Recipients of Central Arizona Project (CAP) water to be reallocated from non-Indian agricultural (NIA) use to municipal and industrial (M&I) use, under the Arizona Water Settlement Act of 2004 (AWSA).

- 1. Introductions (Reclamation)**
- 2. Agency Briefing (Reclamation)**
- 3. Overview of NEPA Process (ERO Resources)**
- 4. EA Project Status/Schedule (ERO Resources)**
 - Where we're at in the process
 - Public Scoping Meetings
 - EA development
- 5. What the NEPA Document Covers and Does Not Cover (Reclamation)**
- 6. Proposed Recipient Costs Associated with the NEPA Process (CAWCD)**
- 7. Q&A**

Appendix E

Notice of Availability of the Draft EA for Public Review and Comment



United States Department of the Interior

BUREAU OF RECLAMATION

Phoenix Area Office

6150 West Thunderbird Road

Glendale, AZ 85306-4001

MEMORANDUM

To: All Interested Persons, Organizations, and Agencies

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

Subject: Bureau of Reclamation Seeks Public Comments for Environmental Assessment on Proposed Recommendation for the Reallocation of Non-Indian Agricultural Priority Central Arizona Project Water in Accordance with Arizona Water Settlements Act of 2004 (due date July 22, 2016)

The Bureau of Reclamation, in cooperation with the Arizona Department of Water Resources (ADWR) and the Central Arizona Water Conservation District, has prepared a draft environmental assessment (DEA) to act upon the recommendation made by ADWR for the proposed reallocation of 46,629 acre-feet annually of Non-Indian Agricultural water to municipal and industrial users in the Phoenix, Pinal, and Tucson Active Management Areas (AMAs) within the Central Arizona Project service area. The Arizona Water Settlements Act of 2004 outlines that this water can be reallocated to municipal and industrial users upon approval by the Secretary of the Interior (Secretary). The reallocation of this water is needed to help AMAs meet their targets for reducing groundwater overdraft, while still developing their economies.

The DEA has been prepared to meet the requirements of the National Environmental Policy Act (Public Law 91-190). The DEA evaluates the potential effects the proposed reallocations will have on the human environment, and will inform the Secretary's decision on whether to approve the proposed reallocations based on ADWR's recommendation.

Reclamation seeks public input on the DEA, including the potential impacts of the proposed action and other substantive concerns or comments on the DEA. All comments on the DEA will be considered prior to making a final decision on whether to approve the proposed reallocations. To be most helpful, comments should be as specific as possible.

There will be a public meeting to solicit comments on the DEA. The public may view exhibits, ask questions of agency representatives and resource specialists, and provide verbal and/or written comments at this meeting. The public meeting date, time, and location are as follows:

Casa Grande – June 22, 2016, 4:30 to 6:30 PM

Casa Grande Middle School, Auditorium

300 W McMurray Blvd

Casa Grande, AZ 85122

Hearing impaired, visually impaired, and/or mobility impaired persons planning to attend these meetings may arrange for necessary accommodation by calling or emailing Reclamation at 623-773-6216, kmusser@usbr.gov, prior to the public meeting.

Comments may also be sent by mail to Reclamation's Phoenix Area Office, 6150 W. Thunderbird Rd., Glendale, AZ 85306, Attention: PXAO-1500. You can also fax comments to 623-773-6486, or email them to cap_NIA@erresources.com by July 22, 2016. Comments, including your personal identifying information, may be made publicly available at any time. The DEA is available for download and review on the Phoenix Area Office website at: <http://www.usbr.gov/lc/phoenix/>.

Appendix F

Public Comments Received and Reclamation Responses

Appendix F

Public Comments Received and Reclamation Responses

1.0 Notice of Availability and Public Outreach

On June 8, 2016, Reclamation sent a Notice of Availability to the project mailing list consisting of Federal, state, and local agencies, Native American Tribes, organizations, Proposed Recipients, and other interested stakeholders. The Notice of Availability requested public comments on the environmental analysis and provided information about the availability of the Draft EA, Reclamation website address to access the EA, due date for comments and how to comment, and the date and location for a public meeting to present information about the proposed project and answer questions. The comment period was specified as June 13 through July 13, 2016. The Notice of Availability was available on Reclamation's website at <https://www.usbr.gov/lc/phoenix>.

2.0 Results

2.1 Comments Received

Public comments were submitted as emails or email attachments to cap_NIA@erresources.com and as letters sent by fax or postal mail to the Reclamation Phoenix Area Office. This Appendix F contains copies of all comment letters received during the public comment period in Attachment 1. The letters also include agency responses to substantive comments. Additional documents and attachments that were included with comment letters have not been included in this Appendix F, but are available in the project record. In total, 6 comment letters and emails were received during the public comment period. **Table 1** provides the affiliation of the commenters. Corrections and clarifications to the EA resulting from comments received have been incorporated into the Final EA (June 2018) pursuant to 43 CFR § 46.305(b).

Table 1. Commenter Type or Affiliation.

Commenter Type or Affiliation	Number of Comment Submissions
Individual	0
Business	1
Public utility	1
Nongovernmental organization	2
Tribe	2
Total Comments	6

Attachment 1. Public Comment Letters and Reclamation Responses

Comment	AZ Mining Reform Coalition	Response
	<p>Arizona Mining Reform Coalition ♦ Center for Biological Diversity ♦ Concerned Citizens and Retired Miners Coalition ♦ Concerned Climbers of Arizona ♦ Maricopa Audubon Society ♦ Save the Scenic Santa Ritas ♦ Save Tonto National Forest ♦ Sierra Club – Grand Canyon Chapter ♦ WildEarth Guardians</p> <p>July 22, 2016</p> <p>Bureau of Reclamation (“BOR”) Phoenix Area Office Attn: Kimberly Musser (PXA0-1500) 6150 West Thunderbird Road Glendale, AZ 85306-4001</p> <p>Sent via email: cap_NIA@erresources.com</p> <p>Dear BOR:</p> <p>This letter serves as the comments of the Arizona Mining Reform Coalition (AMRC), Center for Biological Diversity, Concerned Citizens and Retired Miners Coalition, Concerned Climbers of Arizona, Maricopa Audubon Society, Save the Scenic Santa Ritas, Save Tonto National Forest, Sierra Club – Grand Canyon Chapter, WildEarth Guardians [hereinafter collectively AMRC] regarding the Draft Environmental Assessment (DEA) for the Recommendation for the Reallocation of Non-Indian Agriculture Water within the Central Arizona Project (CAP) System in accordance with the Arizona Water Settlements Act of 2004.</p> <p><u>Organizations</u></p> <p>Arizona Mining Reform Coalition works in Arizona to improve state and federal laws, rules, and regulations governing hard rock mining to protect communities and the environment. AMRC works to hold mining operations to the highest environmental and social standards to provide for the long term environmental, cultural, and economic health of Arizona. Members of the Coalition include: Apache – Stronghold, Center for Biological Diversity, Concerned Citizens and Retired Miners Coalition, Concerned Climbers of Arizona, Dagoon Conservation Alliance, EARTHWORKS, Empire Fagan Coalition, Environment Arizona, Groundwater Awareness League, Maricopa Audubon Society, Save the Scenic Santa Ritas, Grand Canyon Chapter of the Sierra Club, Sky Island Alliance, Spirit of the Mountain Runners, Tucson Audubon Society, and the Valley Unitarian Universalist Congregation.</p> <p>The Center for Biological Diversity is a non-profit public interest organization with headquarters located in Tucson, Arizona, representing more than 1 million members and supporters nationwide dedicated to the conservation and recovery of threatened and endangered species and their habitats. The Center has long-standing interest in projects of ecological significance undertaken in the National Forests of the Southwest, including mining projects.</p> <p>The Concerned Citizens and Retired Miners Coalition is a group of citizens who: 1) reside in Superior, Arizona, or do not reside in Superior, Arizona, but are affiliated with relatives who are residents; 2) are retired hard-rock miners who previously worked in the now non-operational mine in Superior, Arizona, and were displaced due to mine closure or personal disability; or 3) are individuals who are concerned that important U.S. public recreational land will be conveyed to a foreign mining company for private use.</p> <p style="text-align: right;">1</p>	

Comment	AZ Mining Reform Coalition	Response
	<p>The Concerned Climbers of Arizona was organized in 2010 for the purpose of preserving climbing access and the climbing environment. The group advocates for continued recreational access to climbing areas that are threatened by development or other forms of encroachment. Based in Phoenix, Arizona, the Concerned Climbers of Arizona is the primary group representing the interests of rock climbers in central Arizona.</p> <p>The Maricopa Audubon Society's Mission is to protect the natural world through public education and advocacy for the wiser use and preservation of our land, water, air and other irreplaceable resources. Maricopa Audubon Society members have led the Superior Christmas Bird Count in and around Oak Flat and Tonto National Forest for years. Our members bird, hike, camp and enjoy other activities in the natural areas which this project proposes to convert to a mine and tailings pile.</p> <p>Save the Scenic Santa Ritas is a non-profit organization that is working to protect the Santa Rita and Patagonia Mountains from environmental degradation caused by mining and mineral exploration activities.</p> <p>Save Tonto National Forest works to protect our National Forest and promote safe and responsible use by all groups of outdoor enthusiasts. We are based in Queen Valley, Arizona and have around 260 members concerned about the direction the Tonto National Forest is going.</p> <p>Sierra Club is one of the nation's oldest and most influential grassroots organizations whose mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." Sierra Club has more than 2.4 million members and supporters with 40,000 in Arizona as part of the Grand Canyon (Arizona) Chapter. Our members have long been committed to protecting and enjoying the Tonto National Forest and have a significant interest in the proposed Resolution Copper Mine and related activities.</p> <p>WildEarth Guardians is a nonprofit conservation organization with offices in seven states. they have more than 160,000 members and activists across the United States and the world. WildEarth Guardians protects and restores wildlife, wild places, wild rivers, and the health of the American West. Toward this end, Guardians and its members work to protect the natural and cultural features of landscapes within national forests and other public lands, including their wildlife.</p> <p>Collectively, AMRC is particularly concerned with the relationship between the BOR's proposed approval of the Allocation Recommendations submitted by the Arizona Department of Water Resources (ADWR) as it relates to the proposed Resolution Copper Mine (one of the proposed recipients of the CAP water). As noted herein, the DEA and proposed approval of ADWR's recommendations violate numerous federal laws including the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), the Arizona Water Settlements Act of 2004, Public Law P.L. 108-451 (AWSA), various laws related to the Central Arizona Project, and the implementing regulations and policies of these laws.</p> <p>At a minimum, the BOR cannot issue a Final EA and Finding of No Significant Impact (FONSI) and must prepare a complete Environmental Impact Statement (EIS) under NEPA before considering whether to approve the ADWR Recommendations. Further, BOR must immediately initiate consultation with the federal Fish and Wildlife Service (FWS) and otherwise comply with the ESA due to the adverse impacts to ESA-listed species that may be affected. Similar consultation with Native American Tribes is required under the NHPA and laws, regulations, and Executive Orders regarding impacts to historical, cultural and other resources that may be</p>	

Comment	AZ Mining Reform Coalition	Response
1	<p>affected by the delivery of the water allocations themselves as well as the various projects that will receive and use the proposed water allocations.</p> <p>Regarding the Resolution Mine, ADWR recommends, and BOR proposes to authorize, 2,238 AFA (acre-feet annually) to be delivered and used by the Mine as part of its proposed operations. DEA at 14 (Table 1). None of the impacts to environmental, cultural, historical, and other resources caused by the proposed Mine have been reviewed, at all, by BOR or its DEA. The same is true for the other activities/projects proposed to receive and use the proposed Allocations listed in DEA Table 1. As detailed below, the failure to analyze these impacts, as well as the failure to fully review the impacts from the removal of water from the Colorado River and construction of all the delivery infrastructure, violates NEPA and the other laws/regulations/policies noted herein.¹</p> <p>The Resolution Mine is a connected action to the proposed BOR project decision(s), thus requiring that the impacts from the Mine be fully analyzed by the BOR.</p> <p>The DEA asserts that the Resolution Mine is not dependent on using the CAP allocation proposed by BOR in this case. DEA at 16-17. That is wrong. As admitted in the DEA, Resolution requires significant amounts of CAP water to support its mine operations near Superior, Arizona. In Resolution's Application to ADWR for the NIA reallocation, dated June 14, 2013, Resolution specifically explains that the NIA reallocation will be used for its mine operations at Superior, because (according to Resolution) it became apparent early on that "the bedrock in the vicinity of the mine was not going to be an efficient or sustainable source of water to supply the Project's water needs." Application at 4. In fact, Resolution makes clear in its Application that, in terms of priority, the first water supply it intends to rely on to operate the Mine is CAP water, including the proposed CAP reallocation. See Table 5.1, Application at 12. Thus, the significant impacts of the Mine must be evaluated as a connected action in the context of the proposed reallocation of CAP water to Resolution.</p> <p>Moreover, in Resolution's own General Plan of Operations (GPO), submitted to the Tonto National Forest Service in November 2013, as amended, Resolution estimates it will need at least 500,000 acre-feet of water for the life of its Mine. See General Mining Plan of Operations (GPO) at 174, available at http://www.resolutionmineeis.us/documents/resolution-copper-gpo (the Plan is incorporated by reference into these comments for consideration by the BOR). The GPO specifically sites to its current request for a reallocation of CAP NIA water as a critically needed source of water for its Mine. <i>Id.</i> at 173-174.</p> <p>It is well known that in examining the scope of the federal action under 40 C.F.R. § 1508.25, all "connected actions" must be considered under NEPA. This is because NEPA requires that the sum of all related components making up a "larger" action be evaluated together. It is unacceptable to divide a large action into a series of smaller actions or to not consider the proposed action in context with other actions taking place, called "connected actions." Here, there can be no doubt that (a) the Mine project justifies and is the exclusive reason for Resolution's request for a</p> <p>¹ At the outset, because the Resolution Mine has yet to be approved by the U.S. Forest Service and other agencies, approval of an allocation for an as-yet-unapproved project may remove available water that could be allocated for other, existing uses and is thus premature and not in compliance with BOR's duty to ensure that the public interest is served by its allocation decisions.</p>	<p>Comment Response 1: In its Non-Indian Agricultural (NIA) Priority Central Arizona Project (CAP) water application submission to the Arizona Department of Water Resources (ADWR) dated June 14, 2013, Resolution Copper Mining, LLC, indicated any shortages of water, needed for operation of the proposed Resolution Copper Mine (RCM), would be supplied by groundwater pumping via a state mineral extraction permit. The NIA Priority CAP water supply is not guaranteed, and will be one of the first CAP allocations that would be reduced during declared shortages of Colorado River water.</p> <p>The U.S. Department of Agriculture, Forest Service, Tonto National Forest (TNF), is the federal agency responsible for issuing the federal approvals/permits that would allow the RCM to proceed. TNF initiated its formal NEPA process for the proposed RCM on March 18, 2016, when it issued a Notice of Intent to prepare an environmental impact statement (EIS) for the proposed Resolution Copper Project and Land Exchange (RCM Project and Land Exchange EIS). [According to its General Plan of Operations (GPO), the RCM Project and Land Exchange EIS would require a total of 500,000 acre-feet to operate over the life of the project; 2,238 acre feet per year is projected to be NIA Priority CAP reallocated water, if approved. Over the 40-year life of the project, this would be approximately 18 percent of the total water supply needs.]</p> <p>Reclamation and TNF met twice in 2017 to discuss what, if any, connection existed between Reclamation's action to approve or disapprove ADWR's proposed NIA Priority CAP water reallocation recommendation, and TNF's actions related to the RCM Project and Land Exchange EIS. Based upon those discussions, Reclamation understands that TNF concluded for the RCM Project and Land Exchange EIS, the EIS would analyze the impacts from utilizing groundwater pumping via a state mineral extraction permit for any water supply needs that were not confirmed as of the date the studies are initiated. This is because Reclamation's decision whether to approve ADWR's recommendations is not yet known, and the delivery of NIA Priority CAP reallocated water is not guaranteed.</p> <p>Regardless of Reclamation's decision regarding ADWR's NIA Priority CAP water reallocation recommendation, TNF's federal approvals/permits that would allow the RCM to proceed, will not depend or be based upon any decision by Reclamation. In that way, the two projects are not connected, for purposes of NEPA compliance. TNF will fully analyze the impacts from the proposed mine in its EIS.</p>

Comment	AZ Mining Reform Coalition	Response
2	<p>reallocation of CAP NIA Water; (b) it is both unreasonable and unwise for Resolution to develop its Mine without having secured the water supplies it needs for the Mine, which includes the CAP NIA reallocation; (c) the Mine undoubtedly triggers the request for reallocation to BOR; and (d) Resolution's acquisition of CAP NIA is committed solely to the use of the Mine. It is therefore a connected action and the significant impacts of the Mine project to be facilitated by the proposed reallocation must be considered in the current NEPA process by BOR.</p> <p>Regarding the other projects/activities that will receive the CAP water as proposed by the BOR, except for a brief discussion of DEA's refusal to review the Rosemont Mine as a connected action (itself unsupported by the facts), the DEA improperly fails to review the impacts from these other projects/activities as connected actions under NEPA.</p> <p>Even if the allocation and delivery of CAP water to the Resolution Mine (and other recipients) are not "connected actions", the BOR must fully review the indirect and cumulative impacts of the Mine (and other recipients' activities/projects)</p> <p>Because the DEA asserted that the Resolution Mine was not a "connected action" under NEPA, BOR believes that it does not have to analyze the impacts from the Mine, (and presumably the other projects/activities proposed to receive water since their impacts were also not reviewed). Yet regardless of whether the Mine and other projects/activities are "connected actions," NEPA and other laws require BOR to review the indirect and/or cumulative impacts from these projects/activities.</p> <p>BOR's NEPA Handbook expressly requires that the indirect and cumulative impacts from actions that are not considered "connection actions" under NEPA still must be fully analyzed, "whether or not" the BOR decision is the principal cause of the impacts.</p> <p>Although indirect impacts are frequently difficult to identify and measure, the indirect impacts that can reasonably be expected to occur, should Reclamation proceed with a given proposal, need to be analyzed. However, such potential indirect effects can only be meaningfully analyzed if they are measurably different from no action conditions.</p> <p>Indirect effects, as defined in the CEQ regulations (40 CFR 1508.8(b)), may include growth-inducing effects, changes in land use, changes in population density, or changes in growth rate and related effects on natural systems. The potential for a Reclamation proposal to cause these types of indirect effects must be examined in light of <i>whether the proposal is the principal cause of these effects (the "but-for" issue) or is incidental (secondary) to effects that are likely to occur anyway because of some other activities.</i></p> <p>BOR NEPA Handbook, at 8-17 (emphasis added). http://www.usbr.gov/ncpa/docs/NEPA_Handbook2012.pdf. See also <i>Great Basin Mine Watch v. Hanks</i>, 456 F.3d 955 (9th Cir. 2006) (actions that were not "connected actions" still had to be reviewed for their cumulative impacts).</p>	<p>Comment Response 2: The EA has evaluated indirect and cumulative impacts associated with the Proposed Action to the degree those impacts are reasonably foreseeable, and not speculative or totally unknown. Where potential future impacts would occur from a Proposed Recipient's construction of infrastructure to take and use its NIA Priority CAP water allocation, but no other details are known about the associated location of, or amount of ground disturbance anticipated by, this infrastructure, environmental clearances cannot be evaluated until those details are known. Each CAP water service subcontract includes a clause that states, in part, "notwithstanding any other provision of this subcontract, Project Water shall not be delivered to the Subcontractor unless or until the Subcontractor has obtained final environmental compliance from the United States..." This is to ensure that site-specific environmental compliance would be completed prior to delivery of any of the reallocated water. Compliance with the National Historic Preservation Act (NHPA) and Endangered Species Act (ESA), as appropriate, would be completed at that time.</p> <p>As mentioned in these comments, Reclamation's NEPA Handbook indicates potential indirect effects are only meaningfully analyzed if they are measurably different from no action conditions. For this proposed action, there is little difference between the No Action and the Proposed Action because Proposed Recipients are anticipated to find other sources of water to fulfill their water demands in the absence of receiving NIA Priority CAP reallocated water. The main difference would be the source of water used under the No Action, and any infrastructure constructed to take and use the NIA Priority CAP reallocated water under the Proposed Action, where none currently exists. For entities that do not yet have detailed plans for such infrastructure, it is not possible to describe or evaluate the impacts resulting from ground-disturbing activities associated with construction; these impacts would be evaluated once those plans have been identified (see above).</p>
3	<p>The DEA illegally limits its cumulative impacts review. "Because of the nature of the Proposed Action and the extensive analysis area, only select municipal planning projects or other site-specific actions are included in the cumulative effects analysis." DEA at 18. This is despite noting that, under NEPA, the agency must review the cumulative impacts of all "reasonably foreseeable future actions": "Reasonably foreseeable future actions" are defined as actions that are not speculative—</p>	<p>Section 3.2.1 of the EA briefly summarized several past, present, and reasonably foreseeable actions that met the following criteria and were included in the cumulative effects analysis:</p> <ul style="list-style-type: none"> • The potential impacts of the future action would occur within the same geographic area (analysis area) and during the same time as the potential impacts of the Proposed Action. • The future action may affect the same environmental resources as the Proposed Action. • There is a reasonable expectation the future action would occur; the future action is not speculative. • There is sufficient information available to define the future action and assess potential cumulative impacts (EPA 1999; Council on Environmental Quality 1997a).

Comment	AZ Mining Reform Coalition	Response
		Comment Response 3: The comments indicate cumulative impacts from all other mining, grazing, recreation, energy development, roads, etc., should be considered. The commenters did not identify any other specific past, present, or reasonably foreseeable future actions they believe have been omitted from the list of projects considered under cumulative effects in the EA. Where known future activities would occur within the same geographic analysis area during the same time as activities from the Proposed Action, the potential cumulative impacts on resources were described (see, for example, Section 3.6.4).

Comment	AZ Mining Reform Coalition	Response
	<p>they have been approved, are included in planning and budget documents prepared by the individual(s), or are likely to occur given trends (Environmental Protection Agency (EPA) 1999).” DEA at 18. In addition to failing to review the cumulative impacts from these actions, some resources are not reviewed at all, based on the BOR’s self-imposed, and improper, decision to limit its scope of review. “Due to the nature of the Proposed Action, the following resource areas are not anticipated to be affected to any measurable degree and, therefore, are not included in the analysis: air quality, geology and soils, recreation resources, and visual resources.” DEA at 59.</p> <p>There is no doubt that the Resolution Mine, and all or almost all of the projects/activities listed in DEA Table 1 are either proposed, ongoing, or approved – i.e., not “speculative.” Further, there is little to no mention of other projects/activities in the area (besides those listed in Table 1) that may have indirect or cumulative impacts to water quality and quantity, air quality, wildlife, recreation, cultural/historic/religious, socioeconomic, and other potentially affected resources. Overall, the BOR’s decision to limit its review to just the immediate impacts from the water delivery facilities (which even here the DEA fails to fully review even these impacts) improperly limits the scope of its NEPA/ESA/NHPA analysis.</p> <p>As just one example, regarding wildlife, in asserting that impacts from these projects need not be considered, the DEA states: “Potential indirect impacts on wildlife habitat from installation of any new water infrastructure are impossible to quantify since the specific locations of potential pipelines or USFs have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal or tribal laws and regulations.” DEA at 33. This rationale is repeated for all or almost all of the other potentially affected resources (e.g., cultural/historical/religious, air and water, soils/land). The DEA makes essentially the same statement for cultural/historical resources, arguing that: “Any attempt to quantify impacts from additional development, such as impacts on cultural resources that may result from land clearing activities, is speculative because the specific location of the infrastructure is unknown at this time.” DEA at 36.</p> <p>Another example, regarding species listed under the ESA, the DEA states that:</p> <p>Potential indirect disturbance or habitat effects for listed species from the installation of new water facilities (e.g., treatment plants or pipelines) are impossible to quantify in this analysis since the specific locations have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA. Therefore, future developments by the Proposed Recipients would be analyzed under a separate NEPA analysis to ensure effects on listed species are addressed. Without conceptual plans and/or locations of potential developments, determining effects on listed species from new developments is not currently possible.</p> <p>DEA at 34. The DEA also states that: “The City of Buckeye and the three mines are proposing to construct infrastructure for delivery and storage of CAP water from the reallocation. These projects would be covered under a separate environmental compliance process, as stated in the terms of their contracts.” DEA at 25.</p> <p>As shown herein, however, the BOR cannot rely on the fact that other agencies may review the impacts from these projects in the future to avoid reviewing them now. First, many of these projects would not involve federal agencies and thus no NEPA, ESA, or NHPA review would</p>	

Comment	AZ Mining Reform Coalition	Response
	<p>occur. The Ninth Circuit has expressly held that a federal agency may not rely on future state or local permitting to avoid its NEPA obligations. "BLM argues that the off-site impacts need not be evaluated because the Goldstrike facility operates pursuant to a state permit under the Clean Air Act. This argument also is without merit. A non-NEPA document - let alone one prepared and adopted by a state government - cannot satisfy a federal agency's obligations under NEPA. <i>Klamath-Siskiyou Wildlands Center v. BLM</i>, 387 F.3d 989, 998 (9th Cir. 2004)." <i>South Fork Band Council v. U.S. Dept. of Interior</i>, 588 F.3d 718, 726 (9th Cir. 2009).</p> <p>One recent case specifically found that the BOR cannot defer NEPA analysis to future analysis, even those currently undergoing NEPA review in other contexts. The court rejected the BOR's argument that such future and current reviews satisfy its duties to review the impacts from the current project under review.</p> <p>Federal Defendants are also correct that NEPA analyses are being prepared in connection with these cases. <i>See id.</i> However, the NEPA analysis associated with these ESA cases is not yet complete. <i>Id.</i> (indicating remand, including completion of NEPA analysis, will not be complete until December 1, 2013 according to current schedule in the Consolidated Delta Smelt Cases and April 29, 2016 in the Consolidated Salmonid Cases). Federal Defendants fail to explain how an EA can tier off of a non-existent EIS.</p> <p><i>Pacific Coast Federation of Fisherman's Associations v. U.S. Dept. of Interior</i>, 929 F.Supp.2d 1039, 1059 (E.D. Cal. 2013)(citations omitted).</p> <p>For projects that may undergo future federal agency review, the BOR cannot defer analysis of the direct, indirect, and cumulative impacts from these projects to future NEPA (or ESA/NHPA/etc.) review. Further, the DEA's conclusion that impacts from these projects "are impossible to quantify in this analysis since the specific locations have not been identified" defies logic, as the "specific location" of many of these projects have been identified and are known by the BOR.</p> <p>For many of these projects, such as the Rosemont and Resolution Mines (and other projects listed in Table 1), specific plans have been submitted to various federal, state, and local agencies – i.e., they are not "speculative" or "impossible" to ascertain as alleged by the DEA. For example, the U.S. Forest Service is currently accepting public comments on the proposed Resolution Mine. 81 Fed. Register 14829-832 (March 18, 2016). The Resolution Mine and Land Exchange is currently undergoing Forest Service consideration. <i>See</i> http://www.resolutionmineeis.us/. As such, these proposed actions must be fully reviewed.</p> <p>The approval or denial by BOR of ADWR's recommended Allocations may result in different operational impacts to environmental and other resources from the facilities proposed to receive the CAP water. For example, for water resources, the DEA states that:</p> <p>Because the current list of Proposed Recipients has forecasted water demand that is greater than their sustainable supply, the No Action alternative of rejecting ADWR's recommendation would have an adverse impact because their water demand would result in continued pumping of groundwater, which is a nonrenewable supply. Under the No Action alternative, Sierrita Mine would continue to pump groundwater from the Tucson AMA to meet its operational needs of 23,098 AFA and no CAP water would be recharged in the near term to offset its consumption. The remaining Proposed Recipients would likely seek to obtain alternative water supplies, if available, to meet their demand-supply imbalance or rely on accrued groundwater credits or continued groundwater pumping.</p>	

Comment	AZ Mining Reform Coalition	Response
	<p>DEA at 47-48. Thus, at a minimum, the DEA's conclusion that "There would be no changes to land ownership and use of federal or tribal lands or to the lands managed by Reclamation for the CAP canal or associated infrastructure as a result of the No Action alternative," DEA at 25, is wrong, as denial of the CAP water allocations to the mines may "change ... use of federal ... land."</p> <p>Under NEPA, BOR must fully review the impacts from all "past, present, and reasonably foreseeable future actions." These are the "cumulative effect/impacts" under NEPA. To comply with NEPA, the USFS must consider all direct, indirect, and cumulative environmental impacts of the proposed action. 40 CFR §§ 1502.16, 1508.8, 1508.25(c). Direct effects are caused by the action and occur at the same time and place as the proposed project. 40 CFR § 1508.8(a). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. 40 CFR § 1508.8(b). Both types of impacts include "effects on natural resources and on the components, structures, and functioning of affected ecosystems," as well as "aesthetic, historic, cultural, economic, social or health [effects]." <i>Id.</i> Cumulative effects are defined as:</p> <p style="padding-left: 40px;">[T]he 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.</p> <p>40 CFR § 1508.7. In a cumulative impact analysis, an agency must take a "hard look" at all actions.</p> <p>An EA's analysis of cumulative impacts must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment ... Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide.</p> <p><u>Te-Moak Tribe of Western Shoshone v. U.S. Dept. of Interior</u>, 608 F.3d 592, 603 (9th Cir. 2010).</p> <p>The NEPA obligation to consider cumulative impacts extends to all "past," "present," and "reasonably foreseeable" future projects. <u>Blue Mountains</u>, 161 F.3d at 1214-15; <u>Kern</u>, 284 F.3d at 1076; <u>Hall v. Norton</u>, 266 F.3d 969, 978 (9th Cir. 2001) (finding cumulative analysis on land exchange for one development failed to consider impacts from other developments potentially subject to land exchanges); <u>Great Basin Mine Watch v. Hanks</u>, 456 F.3d 955, 971-974 (9th Cir. 2006) (requiring "mine-specific ... cumulative data," a "quantified assessment of their [other projects] combined environmental impacts," and "objective quantification of the impacts" from other existing and proposed mining operations in the region). See also <u>Oregon Natural Resources Council Fund v. Brong</u>, 492 F.3d 1120, 1133 (9th Cir. 2007); <u>ONRC v. Goodman</u>, 505 F.3d 884, 893 (9th Cir. 2007). The requirement for a full cumulative impacts analysis is required in an EA, as well as in an EIS. See <u>Te-Moak Tribe of Western Shoshone</u>, 608 F.3d 592, 603 (9th Cir. 2010) (rejecting EA for mineral exploration that had failed to include detailed analysis of impacts from nearby proposed mining operations).</p> <p>The Ninth Circuit has recently and specifically rejected the argument that an EIS for a proposed</p>	

Comment	AZ Mining Reform Coalition	Response
	<p>federally-approved action did not have to fully review the impacts from off-site activities. In <u>South Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of the Interior</u>, 588 F.3d 718, 725 (9th Cir. 2009), the Ninth Circuit found unlawful BLM's FEIS and ROD reviewing and approving a mining PoO because it failed to evaluate the environmental impacts of transporting and processing the ore at a facility 70 miles away. The court noted that "[t]he air quality impacts associated with transport and off-site processing of the five million tons of refractory ore are prime examples of indirect effects that NEPA requires be considered." <u>Id.</u></p> <p>In another recent decision considering a challenge to federal approval of mineral leasing and mining, the court required an agency to look at the impacts from the proposed mill that would process ore from mines/leases, despite the fact that the proposed mill would be on private lands and despite the fact that the mill was not directly associated with the mines/leases being proposed and was not included in the lease/mining proposals. The court held:</p> <p>[The agency's] other two arguments—that the effects of the mill need not be evaluated because (1) it is being built by a company on private land, and (2) approval of the mill is controlled by other governmental entities—lack merit. Regardless of whether an EA or EIS is being prepared, the agency conducting the analysis must consider the "cumulative impacts" of the proposed action. ...</p> <p>Nothing in this regulation suggests that "cumulative impacts" are limited to those occurring on [public] land, or that [the agency] need not consider the impacts from related activities that another federal agency is in charge of approving or disapproving.</p> <p><u>Colorado Environmental Coalition v. Office of Legacy Management</u>, 819 F.Supp.2d 1193, 1212 (D. Colo. 2011). <i>See also</i> <u>Sierra Club v. U.S. Dept. of Energy</u>, 255 F.Supp.2d 1177, 1185 (D. Colo. 2002) (agency must review impacts from "reasonably foreseeable" mine on private land when preparing NEPA document for federal land easement related to the future mine. "The fact that a private company will undertake the mining is irrelevant under NEPA regulations. <i>See</i> 40 C.F.R. § 1508.7 ('regardless of what agency or person undertakes such other actions')").</p> <p>Agencies must analyze all indirect and cumulative adverse environmental effects that are "reasonably foreseeable" if it is sufficiently likely to occur. "The Forest Service says that cumulative impacts from non-Federal actions need not be analyzed because the Federal government cannot control them. That interpretation is inconsistent with 40 C.F.R. § 1508.7, which specifically requires such analysis." <u>Center for Biological Diversity v. National Highway Traffic Safety Administration</u>, 508 F.3d 508, 517 (9th Cir. 2007) (agency must review of impact of greenhouse gases when setting vehicle fuel economy standards), <i>quoting</i> <u>Res. Ltd., Inc. v. Robertson</u>, 35 F.3d 1300, 1306 (9th Cir.1994). "[S]tatements that the indirect and cumulative effects will be minimal or that such effects are inevitable are insufficient under NEPA." <u>Ctr. for Biological Diversity v. U.S. Dept. of Interior</u>, 623 F.3d 633, 640 (9th Cir. 2010).</p> <p>In one leading case, the agency was required to review the impacts from the burning of coal when reviewing the proposed railway access and transportation of the coal. <u>Mid States Coalition for Progress v. Surface Transportation Board</u>, 345 F.3d 520, 548-550 (8th Cir. 2003). This was required even though the power plants using the coal were hundreds of miles away. A similar result was reached in <u>High Country Conservation Advocates v. United States Forest Service</u>, 52 F.Supp.3d 1174, 1196-97 (D. Colo. 2014) (agency violated NEPA by failing to review impacts of burning coal when considering coal leasing proposal). Courts have even required federal agencies to review the environmental impacts occurring in a foreign country related to the approval of projects in the United States. <u>Government of the Province of Manitoba v. Salazar</u>, 691 F.Supp.2d</p>	

Comment	AZ Mining Reform Coalition	Response
	<p>37, 51 (D.D.C., 2010).</p> <p>In addition to the fundamental cumulative impacts review requirements noted above, NEPA regulations also require that the agency obtain the missing "quantitative assessment" information. 40 CFR § 1502.22. "If there is 'essential' information at the plan- or site-specific development and production stage, [the agency] will be required to perform the analysis under § 1502.22(b)." <u>Native Village of Point Hope v. Jewell</u>, 740 F.3d 489, 499 (9th Cir. 2014). Here, the adverse impacts from the Mine and other projects/activities when added to other past, present or reasonably foreseeable future actions, including the BOR's actions, is clearly essential to the BOR's determination (and duty to ensure) that its actions comply with all legal requirements and minimizes all adverse environmental impacts.</p> <p>Thus, in this case, the BOR failed to fully consider the cumulative impacts from all past, present, and reasonably foreseeable future projects in the region on, at a minimum, water and air quality including ground and surface water quantity and quality, recreation, cultural/religious (including its duties under the National Historic Preservation Act), wildlife, transportation/traffic, scenic and visual resources, etc. At a minimum, this requires the agency to fully review, and subject such review to public comment in a revised draft EA or EIS, the cumulative impacts from all other mining, grazing, recreation, energy development, roads, etc., in the region.</p> <p>BOR's attempt to bypass review of these impacts violates NEPA. The fact that other agencies may review these other projects does not mean that their impacts can be ignored. If that was true, then a federal agency would never have to review the cumulative impacts of "proposed" projects since it is possible that every project under review could change somewhat. Such a short-sighted view of NEPA has been consistently rejected by the federal courts.</p> <p>NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done. <i>See Save Our Ecosystems v. Clark</i>, 747 F.2d 1240, 1246 n. 9 (9th Cir.1984) ("Reasonable forecasting and speculation is... implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry,'" quoting <i>Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n</i>, 481 F.2d 1079, 1092 (D.C.Cir.1973)).</p> <p><u>Kern v. U.S. Bureau of Land Management</u>, 284 F.3d 1062, 1072 (9th Cir. 2002).</p> <p>Even projects that have not reached the formal proposal stage (which is not the case here, since as noted herein these projects are already proposed) are considered "reasonably foreseeable" and must be reviewed in this EA or EIS. <u>Northern Plains Resource Council, Inc. v. Surface Transp. Bd.</u>, 668 F.3d 1067, 1078-79 (9th Cir. 2011). <i>See also</i> <u>Center for Biological Diversity v. Bureau of Land Management</u>, 937 F.Supp.2d 1140, 1157 (N.D. Cal. 2013) citing <u>City of Davis v. Coleman</u>, 521 F.2d 661, 676 (9th Cir.1975) and <u>Northern Plains</u>, 668 F.3d at 1079; <u>Conner v. Burford</u>, 848 F.2d 1441 (9th Cir. 1988)(future impacts of drilling must be analyzed when preparing NEPA document for oil and gas lease); <u>Colorado Environmental Coalition v. Office of Legacy Management</u>, 819 F.Supp.2d 1193, 1209-09 (D. Colo. 2011)(impacts from future, as-yet-un-proposed mining must be considered when preparing NEPA document for leasing decision); <u>New Mexico ex rel. Richardson v. Bureau of Land Management</u>, 565 F.3d 683, 718-19 (10th Cir. 2009).</p> <p>The BOR's allocation decision(s) along with the delivery and use of the CAP water also require a</p>	

Comment	AZ Mining Reform Coalition	Response
4	<p>single EIS if they are “cumulative actions” under NEPA. See, e.g., <u>Great Basin Mine Watch</u>, 456 F.3d at 969, 971–72. “Cumulative actions” under NEPA are those that “when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.” 40 C.F.R. § 1508.25(a)(2). The Ninth Circuit has held under “cumulative impacts” that a single EIS is required where individual actions are part of a broader plan, announced simultaneously, reasonably foreseeable, and located in the same region. <u>Earth Island Institute v. U.S. Forest Service</u>, 351 F.3d 1291, 1305 (9th Cir. 2003); <u>Blue Mountains Biodiversity Proj. v. Blackwood</u>, 161 F.3d 1208, 1214–15 (9th Cir. 1998).</p> <p>In a 2016 decision involving a plan for operations of federal dam projects, the federal court noted that:</p> <p style="padding-left: 40px;">Under the principles articulated in Ninth Circuit case law, the Court finds that a single EIS is required for the [plan] actions as “cumulative actions.” Many individual actions of this comprehensive plan do not and will not have any EA or EIS prepared, and others have only narrowly-focused NEPA documents that do not consider the regionwide impacts from the [plan]. These documents do not constitute a “hard look” at the environmental consequences and alternatives of the Action Agencies’ federal action of adopting and implementing the [plan].</p> <p><u>National Wildlife Federation v. National Marine Fisheries Service</u>, 2016 WL 2353647, *62 (D. Or. 2016). The situation is similar here, as many of the activities/projects covered by the BOR’s allocation decision and DEA “do not and will not have any EA or EIS prepared, and others have only narrowly-focused NEPA documents that do not consider the regionwide impacts” from the CAP allocations.</p> <p>The DEA fails to analyze the baseline conditions of the affected environment, including both the resources associated with the water delivery facilities themselves, as well as the resources affected by the projects/activities that may receive the CAP Allocations.</p> <p>The DEA barely discusses, in nothing more than a cursory manner, the “affected environment” (i.e., the baseline conditions of the resources associated with the water delivery facilities themselves, as well as the resources affected by the projects/activities that may receive the CAP Allocations). This includes, at a minimum, the baseline conditions for surface and groundwater water quality and quantity, wildlife, recreation, cultural/historical/religious, air quality, land use, socioeconomic, and other resources.</p> <p>The BOR is required to “describe the environment of the areas to be affected or created by the alternatives under consideration.” 40 C.F.R. § 1502.15. The establishment of the baseline conditions of the affected environment is a fundamental requirement of the NEPA process:</p> <p style="padding-left: 40px;">“NEPA clearly requires that consideration of environmental impacts of proposed projects take place before [a final decision] is made.” <u>Lafamme v. FERC</u>, 842 F.2d 1063, 1071 (9th Cir. 1988) (emphasis in original). Once a project begins, the “pre-project environment” becomes a thing of the past, thereby making evaluation of the project’s effect on pre-project resources impossible. <u>Id.</u> Without establishing the baseline conditions which exist in the vicinity ... before [the project] begins, there is simply no way to determine what effect the proposed [project] will have on the environment and, consequently, no way to comply with NEPA.</p> <p style="text-align: right;">10</p>	<p>Comment Response 4: As noted in Comment Response 2, the EA has identified the baseline conditions and evaluated impacts associated with the Proposed Action to the degree the Proposed Action is known or reasonably foreseeable, and not speculative or totally unknown. Where potential future impacts would occur from a Proposed Recipient’s construction of infrastructure to take and use its NIA Priority CAP water allocation, but no other details are known about the associated location of, or amount of ground disturbance anticipated by, this infrastructure, environmental clearances cannot be evaluated until those details are known. Each CAP water service subcontract includes a clause that states, in part, “notwithstanding any other provision of this subcontract, Project Water shall not be delivered to the Subcontractor unless or until the Subcontractor has obtained final environmental compliance from the United States...” This is to ensure that site-specific environmental compliance would be completed prior to delivery of any of the reallocated water. Compliance with NHPA and ESA, as appropriate, would be completed at that time.</p>

Comment	AZ Mining Reform Coalition	Response
5	<p><u>Half Moon Bay Fisherman's Mark't Ass'n v. Carlucci</u>, 857 F.2d 505, 510 (9th Cir. 1988). "In analyzing the affected environment, NEPA requires the agency to set forth the baseline conditions." <u>Western Watersheds Project v. BLM</u>, 552 F.Supp.2d 1113, 1126 (D. Nev. 2008). "The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process." Council of Environmental Quality, Considering Cumulative Effects under the National Environmental Policy Act (May 11, 1999). "[O]nce a project begins, the pre-project environment becomes a thing of the past and evaluation of the project's effect becomes simply impossible." <u>Northern Plains v. Surf. Transp. Bd.</u>, 668 F.3d 1067, 1083 (9th Cir. 2011). "[W]ithout [baseline] data, an agency cannot carefully consider information about significant environment impacts. Thus, the agency fail[s] to consider an important aspect of the problem, resulting in an arbitrary and capricious decision." <u>Id.</u> at 1085.</p> <p>Such baseline information and analysis must be part of the EA and be subject to public review and comment under NEPA. The lack of an adequate baseline analysis fatally flaws an EA. <u>See Idaho Conservation League v. U.S. Forest Service</u>, 2016 WL 3814021, *10 (D. Idaho 2016)(EA and FONSI violated NEPA because: "The Forest Service cannot know the impact the Project will have, let alone conclude whether or not its impact is significant, without having accurate baseline data for [plant species] in the Project Area."). "Ninth Circuit cases acknowledge the importance of obtaining baseline condition information before assessing the environmental impacts of a proposed project." <u>Gifford Pinchot Task Force v. Perez</u>, 2014 WL 3019165, *28 (D. Or. 2014)(EA for mineral exploration project failed to obtain and analyze baseline water quality data in violation of NEPA).</p> <p>The Ninth Circuit recently reiterated this fundamental NEPA requirement, invalidating an EIS for failure to analyze baseline conditions for a wildlife species potentially impacted by the project under review. <u>Oregon Natural Desert Association v. Jewell</u>, --- F.3d ---, 2016 WL 3033674, *5-6 (9th Cir. 2016) <i>relying upon</i> <u>Northern Plains</u>, and <u>Half Moon Bay</u>.</p> <p>Here, at a minimum, prior to considering or approving the Allocations, BOR must first obtain this required information and subject the information and analysis to public review and comment in a revised environmental review.</p> <p>BOR must fully comply with the Endangered Species Act</p> <p>In addition to failing to fully review all of the direct, indirect, and cumulative impacts from the water delivery facilities themselves and the projects/activities discussed above in violation of NEPA, BOR has failed to comply with the ESA. The DEA does not mention that the required consultation under the ESA for all listed species (see Table 5, DEA at 30-32) has occurred, nor that the substantive protective requirements of the ESA (e.g., no jeopardy to species or adverse modification of critical habitat) have been met.</p> <p>The DEA admits that these requirements will be deferred until the future, despite BOR's proposal to approve the Allocations and deliveries now.</p> <p>The ESA provides protection for plants and animals that are currently in danger of extinction (endangered) and those that may become extinct in the foreseeable future (threatened). Section 7 of this law requires federal agencies to ensure that all federally associated activities do not have adverse impacts on the continued existence of threatened or</p> <p>11</p>	<p>Comment Response 5: Where known developments would occur, the EA has been updated with additional baseline information based on information provided by Proposed Recipients and publicly-available sources. The known developments include two new residential subdivisions—the Apache Junction Water Utilities Community Facilities District-Portalis subdivision in the Phoenix AMA and the Metropolitan Domestic Water Improvement District-Diablo Village in the Tucson AMA. Future development projects that are currently unknown or where no detail is currently available would be subject to federal, state, and/or local regulations.</p>


Comment	AZ Mining Reform Coalition	Response
	<p>endangered species or designated areas (critical habitat) that are important in conserving those species. Because construction of new water diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA, these future developments would be analyzed under a separate NEPA analysis to address effects on listed species as part of subcontract agreements with Reclamation.</p> <p>DEA at 60. As noted above for NEPA, the fact that future analysis may occur (or may not depending on whether a federal agency is involved) does not exempt BOR from its ESA duties in deciding whether to approve or reject ADWR's recommendations.</p> <p>An agency has a duty to consult under Section 7 of the ESA for any discretionary agency action that "may affect" a listed species or designated critical habitat. <i>Turtle Island</i>, 340 F.3d at 974 (citing 50 C.F.R. § 402.14(a)). An agency may avoid the consultation requirement only if it determines that its action will have "no effect" on a listed species or critical habitat. <i>Sw. Ctr. for Biological Diversity v. U.S. Forest Serv.</i>, 100 F.3d 1443, 1447–48 (9th Cir.1996). Once an agency has determined that its action "may affect" a listed species or critical habitat, the agency must consult, either formally or informally, with the appropriate expert wildlife agency. If the wildlife agency determines during informal consultation that the proposed action is "not likely to adversely affect any listed species or critical habitat," formal consultation is not required and the process ends. 50 C.F.R. § 402.14(b)(1). Thus, actions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are "not likely" to do so—require at least some consultation under the ESA.</p> <p>We have previously explained that "may affect" is a "relatively low" threshold for triggering consultation. <i>Cal. ex rel. Lockyer v. U.S. Dep't of Agric.</i>, 575 F.3d 999, 1018 (9th Cir.2009). "'Any possible effect, whether beneficial, benign, adverse or of an undetermined character,'" triggers the requirement. <i>Id.</i> at 1018–19 (quoting 51 Fed.Reg. 19,926, 19,949 (June 3, 1986)) (emphasis in <i>Lockyer</i>). The Secretaries of Commerce and the Interior have explained that "[t]he threshold for formal consultation must be set sufficiently low to allow Federal agencies to satisfy their duty to 'insure' " that their actions do not jeopardize listed species or adversely modify critical habitat. 51 Fed.Reg. at 19,949.</p> <p><i>Karuk Tribe v. Forest Service</i>, 681 F.3d 1006, 1027 (9th Cir. 2012)(En Banc). BOR water delivery decisions are subject to the ESA. See <i>NRDC v. Rodgers</i>, 381 F.Supp.2d 1212 (E.D. CA 2005).</p> <p>Thus, the ESA, together with NEPA, requires that BOR first fully analyze the direct, indirect, and cumulative impacts to all the listed species in Table 5. Then, for any species that "may be" affected, consultation with the FWS is required. After consultation, if jeopardy to any listed species may occur, or if critical habitat of any listed species may be adversely modified, BOR cannot authorize any actions. None of these requirements have been met.</p> <p>The DEA admits that there will be impacts to listed species from the No-Action Alternative:</p> <p>Many of the Proposed Recipients would continue to pump groundwater for their water needs. Groundwater pumping may affect biological resources by depleting aquifers.</p>	

Comment	AZ Mining Reform Coalition	Response
6	<p>resulting in altered streamflow and altered water availability to groundwater-related vegetation along streams and creeks (Fonseca 2008). Many threatened, endangered, and sensitive species rely on wetland and riparian vegetation for food, shelter, and reproduction. Increases in the depth to groundwater could eventually result in a shift to upland vegetation and loss of riparian and wetland habitat (Fonseca 2008).</p> <p>DEA at 33. The same is true for the Proposed Action:</p> <p>Under Section 7 of the ESA, any proposed action with a federal nexus that may result in an effect (positive or negative) on federally listed or proposed species would require consultation. Potential indirect disturbance or habitat effects for listed species from the installation of new water facilities (e.g., treatment plants or pipelines) are impossible to quantify in this analysis since the specific locations have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA. Therefore, future developments by the Proposed Recipients would be analyzed under a separate NEPA analysis to ensure effects on listed species are addressed. Without conceptual plans and/or locations of potential developments, determining effects on listed species from new developments is not currently possible. Table 5 in Section 3.4.2.2 provides the potential listed species and designated critical habitats present within each AMA.</p> <p>DEA at 34. As noted herein, however, BOR's decision to avoid any specific analysis of impacts to listed species/habitat is based on the illegal positions that these projects/activities are speculative and "impossible" to review and that these impacts can be reviewed in the future long after the CAP water allocation decision is made.</p> <p>This is true not only for the water delivery facilities themselves, and the project/activities receiving the CAP water, but also the longer-term operation and maintenance of the CAP facilities. <u>NRDC v. Rodgers</u>, 381 F.Supp.2d 1212, 1235-37 (ED CA 2005).</p> <p>BOR failed to comply with the National Historic Preservation Act</p> <p>It is a violation of the NHPA and NEPA to complete the public review process before consultation and a complete review of cultural/historical resources has been completed. This includes full review of all properties eligible for listing on the National Register of Historic Places, including eligible Native American sites. <u>Te-Moak Tribe of Western Shoshone v. U.S. Department of the Interior</u>, 608 F.3d 592, 609 (9th Cir. 2010).</p> <p>The DEA discusses BOR's NHPA responsibilities:</p> <p>The NHPA protects buildings, sites, districts, structures, and objects that have significant scientific, historic, or cultural value. The act established affirmative responsibilities of federal agencies to preserve historic and prehistoric resources. Effects on properties that are listed on, or that are eligible for listing on, the National Register must be taken into account in planning and operations. Any property that may qualify for listing on the National Register must not be inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate.</p>	<p>Comment Response 6: Where known developments would occur, the EA has been updated to include a Class I literature review to identify previous project and known cultural resources within the project areas. The known developments include two new residential subdivisions—the Apache Junction Water Utilities Community Facilities District-Portalis subdivision in the Phoenix AMA and the Metropolitan Domestic Water Improvement District-Diablo Village in the Tucson AMA. New ground disturbance related to the Diablo Village and Portalis developments would need to comply with all federal, state, and local laws as applicable. Potential effects on cultural resources in the area of potential effect would need to be assessed and consulted on with stakeholders, and any adverse effects would need to be mitigated prior to construction.</p>

Comment	AZ Mining Reform Coalition	Response
7	<p>Section 306108 (formerly Section 106) of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. The Advisory Council on Historic Preservation (ACHP) is then afforded a reasonable opportunity to comment. The historic preservation review process is outlined in regulations issued by the ACHP. Revised regulations, known as "Protection of Historic Properties" (36 CFR Part 800), were updated on August 5, 2004.</p> <p>In addition to considering the effects of their undertakings on historic properties, Section 306102 (formerly Section 110) of the NHPA requires federal agencies to establish a historic preservation program to identify and protect historic properties under their management or control. The plans must include a process for evaluating historic properties for listing on the National Register.</p> <p>DEA at 61. Yet no mention is made of what eligible properties may be affected by the water deliveries themselves, as well as may be affected by the projects/activities receiving the CAP water – in violation of NEPA and the NHPA. At most, the DEA simply lists the various Tribes that were sent the DEA. DEA at 61. That certainly does not satisfy the review and consultation requirements of the NEPA and the NHPA.</p> <p>The DEA failed to consider all reasonable alternatives</p> <p>The DEA only considered two alternatives, the no-action and proposed action. "For the purposes of this NEPA analysis, only two alternatives were considered – the Proposed Action, approval of the ADWR recommendation, and the No Action, or rejection of the ADWR recommendation." DEA at 13.</p> <p>In so truncating its alternatives review, the BOR improperly failed to consider reasonable alternative(s) that involve allocating CAP water in different amounts to the recipient activities/projects, or to alternative(s) that grant the full amount recommended by ADWR to some recipients, but not others. Each of these alternatives would result in different delivery and/or use of water, and thus different related impacts to the region and in site-specific locales.</p> <p>NEPA requires the agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(F); 40 CFR § 1508.9(b). It must "rigorously explore and objectively evaluate all reasonable alternatives" to the proposed action. <i>City of Tenakee Springs v. Clough</i>, 915 F.2d 1308, 1310 (9th Cir. 1990). The alternatives analysis is considered the heart of a NEPA analysis. 40 C.F.R. § 1502.14. The alternatives analysis should present the environmental impacts in comparative form, thus sharply defining important issues and providing the public and the decisionmaker with a clear basis for choice. <i>Id.</i> The lead agency must "rigorously explore and objectively evaluate all reasonable alternatives" including alternatives that are "not within the [lead agency's] jurisdiction." <i>Id.</i></p> <p>Even if an EA leads to a FONSI, it is essential for the agency to consider all reasonable alternatives to the proposed action. One of the Ninth Circuit's leading EA alternatives decisions states:</p> <p>NEPA requires that federal agencies consider alternatives to recommended actions whenever those actions "involve[] unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E) (1982). The goal of the statute is to ensure "that federal agencies infuse in project planning a thorough consideration of environmental</p> <p>14</p>	<p>Comment Response 7: The Arizona Water Settlements Act of December 10, 2004, Public Law 108-451 (AWSA), authorized and directed the Secretary of the Interior to carry out all necessary reviews of the Proposed Reallocation in accordance with applicable Federal law. The AWSA clearly states Reclamation may only approve or disapprove ADWR's NIA Priority CAP water reallocation recommendation. The law does not allow for other alternatives to be evaluated. The EA text has been revised to clarify this point.</p>


Comment	AZ Mining Reform Coalition	Response
	<p>values.” The consideration of alternatives requirement furthers that goal by guaranteeing that agency decisionmakers “[have] before [them] and take [] into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit balance.” NEPA’s requirement that alternatives be studied, developed, and described both guides the substance of environmental decisionmaking and provides evidence that the mandated decisionmaking process has actually taken place. Informed and meaningful consideration of alternatives-- including the no action alternative-- is thus an integral part of the statutory scheme.</p> <p>Moreover, consideration of alternatives is critical to the goals of NEPA even where a proposed action does not trigger the EIS process. This is reflected in the structure of the statute: while an EIS must also include alternatives to the proposed action, 42 U.S.C. § 4332(2)(C)(iii) (1982), the consideration of alternatives requirement is contained in a separate subsection of the statute and therefore constitutes an independent requirement. See id. § 4332(2)(E). The language and effect of the two subsections also indicate that the consideration of alternatives requirement is of wider scope than the EIS requirement. The former applies whenever an action involves conflicts, while the latter does not come into play unless the action will have significant environmental effects. An EIS is required where there has been an irretrievable commitment of resources; but unresolved conflicts as to the proper use of available resources may exist well before that point. Thus the consideration of alternatives requirement is both independent of, and broader than, the EIS requirement.</p> <p><u>Bob Marshall Alliance v. Hodel</u>, 852 F.2d 1223, 1228-1229 (9th Cir. 1988) (citations omitted). “While a federal agency need not consider all possible alternatives for a given action in preparing an EA, it must consider a range of alternatives that covers the full spectrum of possibilities.” <u>Ayers v. Espy</u>, 873 F.Supp. 455, 473 (D. Colo. 1994).</p> <p>In refusing to consider any other alternatives, the BOR apparently believes that because in the AWSA Congress did not specifically order it to consider other alternatives, this means that its duties under NEPA were somehow eliminated. That is wrong. First, as noted above, the AWSA specifically required full compliance with NEPA. Secondly, the lack of congressional direction or authorization does not excuse the failure to consider all reasonable alternatives.</p> <p>Under NEPA, action alternatives in a NEPA analysis need not be under the jurisdiction or control of the lead agency, and thus a comprehensive NEPA analysis needs to include such a reasonable alternative. See 40 C.F.R. § 1502.14(c) (an EIS “shall” “[i]nclude reasonable alternatives not within the jurisdiction of the lead agency”). The BOR’s NEPA Handbook requires that its NEPA review shall: “Include reasonable alternatives not within the jurisdiction of the lead agency.” BOR NEPA Handbook at 8-7.</p> <p>The Council on Environmental Quality, which promulgates the NEPA regulations that are binding on the federal agencies, specifically requires the agencies to fully consider alternatives “beyond what Congress authorized”:</p> <p>2b. Q. Must the EIS analyze alternatives outside the jurisdiction or capability of the agency or beyond what Congress has authorized?</p> <p>A. An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered.</p>	

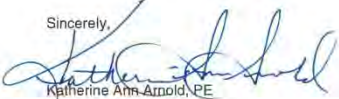
Comment	AZ Mining Reform Coalition	Response
8	<p>Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies. Section 1500.1(a).</p> <p><u>CEQ, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations</u>, 46 FR 18026-011981, at 18027, WL 149908 (March 23, 1981). <i>See also National Wildlife Federation v. National Marine Fisheries Service</i>, 2016 WL 2353647, *60-61 (D. Or. 2016).</p> <p>Thus, here, the revised DEA (or more appropriately the Draft EIS) must consider, at a minimum, the reasonable alternatives that involve allocating CAP water in different amounts to the recipient activities/projects, and to alternative(s) that grant the full amount recommended by ADWR to some recipients, but not others.</p> <p>Relatedly, because the BOR believed it had no authority or responsibility to review these alternatives, the DEA's "purpose and need" discussion is improperly limited and unnecessarily limits the scope of the project and project review, and alternatives review. "Obviously, an applicant cannot define a project in order to preclude the existence of any alternative sites and thus make what is practicable appear impracticable." <u>Sylvester v. U.S. Army Corps of Engineers</u>, 882 F.2d 407, 409 (9th Cir.1989). "No decision is more important than that delimiting what these 'reasonable alternatives' are ... One obvious way for an agency to slip past the structures of NEPA is to contrive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence) ... If the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role." <u>Simmons v. United States Army Corps of Engineers</u>, 120 F.3d 664, 660 (7th Cir. 1997).</p> <p>Failure to review fully mitigation and mitigation effectiveness</p> <p>The DEA contains little to no discussion of mitigation measures to reduce the impacts from the delivery and use of the CAP water as proposed by BOR. This is despite the fact that even the limited review of impacts in the DEA acknowledges the potential for impacts to various resources.</p> <p>Under NEPA, the agency must have an adequate mitigation plan to minimize or eliminate all potential project impacts. NEPA requires the agency to: (1) "include appropriate mitigation measures not already included in the proposed action or alternatives," 40 CFR § 1502.14(f); and (2) "include discussions of: . . . Means to mitigate adverse environmental impacts (if not already covered under 1502.14(f));" 40 CFR § 1502.16(h). NEPA regulations define "mitigation" as a way to avoid, minimize, rectify, or compensate for the impact of a potentially harmful action. 40 C.F.R. §§1508.20(a)-(e). "[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." <u>Robertson v. Methow Valley Citizens Council</u>, 490 U.S. 332, 353 (1989). NEPA requires that the agency discuss mitigation measures, with "sufficient detail to ensure that environmental consequences have been fairly evaluated." <u>Methow Valley</u>, 490 U.S. at 352, 109 S.Ct. 1835.</p> <p>An essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective. Compare <u>Neighbors of Cuddy Mountain v. U.S. Forest Service</u>, 137 F.3d 1372, 1381 (9th Cir.1998) (disapproving an EIS that lacked such an assessment) with <u>Okanogan Highlands Alliance v. Williams</u>, 236 F.3d</p> <p>16</p>	<p>Comment Response 8: As noted in Comment Responses 2 and 4, the EA has evaluated impacts of the Proposed Action to the degree the Proposed Action is known or reasonably foreseeable, and not speculative or totally unknown. Where potential future impacts would occur from a Proposed Recipient's construction of infrastructure to take and use its NIA Priority CAP water allocation, but no other details are known about the associated location of, or amount of ground disturbance anticipated by, this infrastructure, environmental clearances cannot be evaluated until those details are known. Once those details are known and impacts quantified, potential mitigation measures may be developed. This will ensure that site-specific environmental compliance would be completed prior to delivery of any of the reallocated water.</p>

Comment	AZ Mining Reform Coalition	Response
9	<p>468, 477 (9th Cir.2000) (upholding an EIS where “[e]ach mitigating process was evaluated separately and given an effectiveness rating”). The Supreme Court has required a mitigation discussion precisely for the purpose of evaluating whether anticipated environmental impacts can be avoided. <u>Methow Valley</u>, 490 U.S. at 351–52, 109 S.Ct. 1835(citing 42 U.S.C. § 4332(C)(ii)). A mitigation discussion without at least some evaluation of effectiveness is useless in making that determination.</p> <p><u>South Fork Band Council v. Dept. of Interior</u>, 588 F.3d 718, 727 (9th Cir. 2009) (rejecting EIS for mining project for failure to conduct adequate review of mitigation and mitigation effectiveness in EIS). An EA violates NEPA if it “fails to address the effectiveness of the mitigation measures.” <u>Gifford Pinchot Task Force v. Perez</u>, 2014 WL 3019165, *39 (D. Or. 2014). “The comments submitted by [plaintiff] also call into question the efficacy of the mitigation measures and rely on several scientific studies. In the face of such concerns, it is difficult for this Court to see how the [agency’s] reliance on mitigation is supported by substantial evidence in the record.” <u>Wyoming Outdoor Council v. U.S. Army Corps of Eng’rs</u>, 351 F. Supp. 2d 1232, 1251 n. 8 (D. Wyo. 2005). See also <u>Dine Citizens v. Klein</u>, 747 F.Supp.2d 1234, 1258-59 (D. Colo. 2010) (finding “lack of detail as the nature of the mitigation measures” precluded “meaningful judicial review”).</p> <p>The proposed FONSI is not supported by the required analysis and thus cannot be issued.</p> <p>BOR’s deficient EA renders its FONSI inadequate. As the federal courts have held: “[I]f the EA is deficient under NEPA in one of the ways Plaintiff has previously argued, then the [agency’s] DN/FONSI is necessarily arbitrary and capricious because it relied on the 2012 EA.” <u>Gifford Pinchot</u>, 2014 WL 3019165, *40. This follows a line of well-established Ninth Circuit precedent. See <u>Native Ecosystems Council v. Tidwell</u>, 599 F.3d 926, 937 (9th Cir. 2010) (USFS violated NEPA in issuing FONSI based on inadequate analysis); <u>Ctr. for Biological Diversity v. NHTSA</u>, 508 F.3d at 1223-24 (When an EA fails to comply with NEPA requirements, it “do[es] not constitute a ‘hard look’ at the environmental consequences of the action as required by NEPA. Thus, the FONSI is arbitrary and capricious.”).</p> <p>Thus, BOR’s decision not to prepare an EIS was made without the critical information regarding connected actions, cumulative impacts, baseline conditions and other requirements detailed above. The FONSI is consequently invalid.</p> <p>Conclusion</p> <p>Thank you in advance for your consideration of these comments. We look forward to further participation in this important NEPA process.</p> <p>Roger Featherstone</p>  <p>Director Arizona Mining Reform Coalition PO Box 43565 Tucson, AZ 85733-3565 (520) 777-9500 roger@AZminingreform.org</p>	<p>Comment Response 9: Your comment is noted.</p>

Comment	AZ Mining Reform Coalition	Response
	<p><u>On behalf of:</u></p> <p>Randy Serraglio Center for Biological Diversity PO Box 710 Tucson, AZ 85702 (520) 623-5252 x 321 rserraglio@biologicaldiversity.org</p> <p>Roy Chavez Concerned Citizens and Retired Miner Coalition 104 Palo Verde Drive Superior, AZ 85273 (520) 827-9133 Rcchavez53@yahoo.com</p> <p>Manny Rangel Concerned Climbers of Arizona 10460 E. Trailhead Court Gold Canyon, AZ 85118</p> <p>Mark Horlings Maricopa Audubon Society 334 W. Palm Lane Phoenix, AZ 85003 mhorlings@cox.net</p> <p>Gayle Hartmann President Save the Scenic Santa Ritas 8987 E. Tanque Verde #309-157 Tucson, AZ 85749</p> <p>John Krieg Save Tonto National Forest 1073 E. Queen Valley Dr. Queen Valley AZ 85118 (907) 699-6756 krieg@mosquitonet.com</p> <p>Sandy Bahr Chapter Director Sierra Club - Grand Canyon Chapter 514 W. Roosevelt St., Phoenix, AZ 85003 (602) 253-8633 sandy.bahr@sierraclub.org</p> <p style="text-align: right;">18</p>	

Comment	AZ Mining Reform Coalition	Response
	<p>John Horning Executive Director WildEarth Guardians 516 Alto Street Santa Fe, NM 87501 (505) 988-9126 jhorning@wildearthguardians.org</p>	

Comment	Hudbay	Response
<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p>	<p></p> <p>July 13, 2016</p> <p>Bureau of Reclamation Phoenix Area Office 6150 West Thunderbird Road Glendale, AZ 85306 Attn: PXAO-1500</p> <p>RE: Comments on the Draft Environmental Assessment – Proposed Recommendation for the Reallocation of Non-Indian Agricultural Water within the Central Arizona Project System, in Accordance with the Arizona Water Settlements Act of 2004</p> <p>To whom it may concern:</p> <p>Rosemont Copper Company (Rosemont) would like to acknowledge the work that went into the Draft Environmental Assessment (DEA) regarding Proposed Recommendations for the Reallocation of Non-Indian Agricultural Water within the Central Arizona Project System. As one of the applicants, we would also like to thank you for your consideration of our request. We know that water management, particularly in the desert southwest, is vital to our company's future and for other economic opportunities.</p> <p>Rosemont has reviewed the DEA and respectfully submits the following comments and corrections for your consideration:</p> <ul style="list-style-type: none"> • In Section 3.1 (pp.16-18), we agree with the Bureau's analysis of whether the Rosemont Mine is a connected action to the Proposed Action and the conclusion that it is not. • Also in Section 3.1 (Third paragraph in Criteria #1, p. 17), in the description of Resolution Copper's water needs and plans, there are three instances where Rosemont is cited instead of Resolution. • In Section 3.2.1.1.2 (p.19), CWC's service area is in the Tucson AMA, not the Santa Cruz AMA. • In Section 3.2.1.1.2 (p.19) the sentence reads, "The Project would be funded by Augusta Resources, the parent company of Rosemont Mine." To clarify, the Rosemont Mine is owned by Rosemont Copper Company. The current parent company of Rosemont Copper Company is Hudbay Minerals, Inc. via an acquisition of Augusta Resources in 2014. • Figure 5 (p.42) does not show the CWC USF discussed in Section 3.2.1.1.2. Further, Figure 5 should be referenced in Section 3.2.1.1.2. • In several places (i.e., Sections 3.3.1, 3.3.2.5, 3.3.6.2, 3.5.1, and 3.7.1), the DEA refers to Rosemont as being "in the Tucson AMA". We believe this refers to Rosemont's water production wellfield, which is located in the Tucson AMA, but the Rosemont Mine itself is located on the east side of the Santa Rita Mountains, just outside of the Tucson AMA, as shown on Figure 5. We suggest either (A) modifying the language throughout the DEA to refer to Rosemont's production wellfield as being within the Tucson AMA; or (B) editing Figure 5 to show Rosemont's wellfield properties rather than the mining properties. <p>Arizona Business Unit 5255 E. Williams Circle, Suite 1065 Tucson, Arizona 85711-7407 tel. 520-495-3500 hudbayminerals.com</p> <p>Page 1 of 2</p>	<p>Comment Response 1: Comment noted.</p> <p>Comment Response 2: The Final EA was corrected accordingly.</p> <p>Comment Response 3: The Final EA was corrected accordingly.</p> <p>Comment Response 4: The Final EA was updated accordingly.</p> <p>Comment Response 5: The CWC USF was added to Figure 5 and a reference to the figure added.</p> <p>Comment Response 6: The Final EA was updated to reflect that the analysis areas referred to in the discussion for recipients proposing to recharge and recover CAP water are the areas from which the water would be withdrawn.</p>


Comment	Hudbay	Response
7	<p>Rosemont supports the determination and recommendation made in the DEA to reallocate portions of the Non-Indian Agricultural Water to municipal and industrial users. This will allow users to reduce their dependency on groundwater or recharge CAP water into the aquifer. These actions will help reach the stated management goals for the Tucson AMA of safe groundwater yield by 2025.</p>	Comment Response 7: Comment noted.
8	<p>Additionally, Rosemont recognizes that it is within the Secretary's right to make a "No Action" decision on this Environmental Assessment. However, we believe that a timely, positive decision on this recommendation is incredibly important. A decision of "No Action" will require the Bureau of Reclamation to complete another Environmental Assessment, delay implementation, and reduce any benefits provided by groundwater savings.</p> <p>Again, thank you for your time and effort at drafting this DEA. Rosemont looks forward to working with the Bureau of Reclamation and the Arizona Department of Water Resources in the future.</p> <p>Sincerely,</p>  <p>Katherine Ann Arnold, PE Director of Environment</p> <p>Doc. No. 051/16CA/11.1</p>	Comment Response 8: Comment noted.

Comment	Mike Block	Response
1	<p>From: Musser, Kimberly To: Nicole Bauman; Gerry L. Walker; David Johnson; Kelly Brown Subject: Fwd: Draft NIA EA Date: Friday, June 24, 2016 7:12:21 AM Attachments: CH01 TAMA 4MP draft.pdf CH02 TAMA 4MP draft.pdf</p> <hr/> <p>FYI, this is an official comment on the NIA EA. Since the first portions are regarding the background, I thought you all might want to see it so we can address it. Reclamation will ultimately put together the final response, but input on the specifics is requested.</p> <p>----- Forwarded message ----- From: Mike Block <mblock@metrowater.com> Date: Thu, Jun 23, 2016 at 3:31 PM Subject: Re: Draft NIA EA To: "Musser, Kimberly" <kmusser@usbr.gov> Cc: "Joseph Olsen, P.E." <jolsen@metrowater.com></p> <p>Hi Kimberly,</p> <p>I was chatting yesterday with Brian and Emily about certain sections of the draft EA and found the reference materials to document the edits that I discussed with them.</p> <p>The first topic was in the EA on Page 5 and the Tucson AMA state as not being in Safe-Yield. Please also acknowledge that ADWR's Draft Fourth Management Plan in the attached Introduction chapters states (Page 1-2) that the Tucson AMA achieved Safe-Yield in 2011, 2012, and 2013. On Page 1-4, the draft plan states the AMA has been at or near Safe-Yield goal in recent years, but acknowledges additional work will be need to fully achieve and maintain the Safe-Yield goal.</p> <p>The reference to continued groundwater overdraft on Pages 5 and 12 should also acknowledged that the groundwater withdrawals have decreased in the Tucson AMA (see Section 2.5.1, 2.5.2, and 2.5.3, and Figure 2-5 of ADWR Draft 4th Management Plan) and as mentioned before groundwater withdrawals in recent years have been less than natural and artificial recharge.</p> <p>On Page 30 in the Aquatic Wildlife section, most of the Santa Cruz River is designated as ephemeral by the U.S. Geological Survey. The same for Pantano Wash and Rillito Creek. Section 2.3 of ADWR's Draft Fourth Management Plan also characterizes most of the streams in the Tucson AMA as ephemeral. Please confirm with the USGS for the proper designation for the streams cited in the draft EA.</p> <p>On Page 35, the shallow groundwater discussion should also characterize whether the locations of shallow groundwater in the Tucson AMS occur in proximity to where the potential recipients will be directly using or storing and recovering the NIA water.</p> <p>Last sentence of the last paragraph of Section 3.6.2.3.1, please change "decrease" to "recover." See Section 2.6.3 of the ADWR Draft Fourth Management Plan.</p> <p>Please delete "MDWID" from Section 3.6.2.3.2 on Page 46. MDWID SW Diablo Village the recipient of the NIA water is located wholly in the Avra Valley Subbasin.</p>	<p>Comment Response 1: The Final EA was corrected accordingly.</p> <p>Comment Response 2: The Final EA was corrected accordingly.</p> <p>Comment Response 3: The Final EA was corrected accordingly.</p> <p>Comment Response 4: The Final EA was corrected accordingly.</p> <p>Comment Response 5: The sentence was updated to reflect ADWR's Draft Fourth Management Plan from the Tucson AMA.</p> <p>Comment Response 6: The Final EA was corrected accordingly.</p>

Comment	Mike Block	Response
<p>6 cont.</p>	<p>MDWID Main, MDWID Hub, and MDWID SW E&T are located in the Upper Santa Cruz Subbasin, but are not eligible for NIA water for this reallocation process and were not part of MDWID's NIA application.</p> <p>Thank you for this opportunity to provide comments on the draft EA.</p> <p>Sincerely, Mike</p> <p>On Wed, Jun 22, 2016 at 9:04 AM, Musser, Kimberly <kmusser@usbr.gov> wrote: you will be able to record those with the court reporter when you are there. It won't be necessary to write a formal letter if you do it that way.</p> <p>On Wed, Jun 22, 2016 at 7:36 AM, Mike Block <mblock@metrowater.com> wrote: Hi Kimberly,</p> <p>Yes, I have a meeting in Phoenix today and was going to attend on drive back to Tucson.</p> <p>I did find some minor edits and some other corrections, plus a couple of clarification questions that I can put in a letter.</p> <p>Mike</p> <p>On Wed, Jun 22, 2016 at 6:36 AM, Musser, Kimberly <kmusser@usbr.gov> wrote: Thank you Mike, we will save your comment, and make the change. I appreciate your input. And truthfully, I'm glad I'm not the only person who read it. Thanks again. We will make sure your changes are annotated. Will you be able to attend the public meeting this evening in Casa Grande? It's at the junior high school, and I'd really love to meet you, you do so many things, and you're so efficient, I would really love to put a face with a name.</p> <p>On Tue, Jun 21, 2016 at 10:58 AM, Mike Block <mblock@metrowater.com> wrote: Kimberly,</p> <p>I think I found the reference you mentioned on Page 49 at the end of Section 3.6.3.2.2</p> <p>In that regards, Metro noticed the last column in Table 2 for MDWID that the report has MDWID's storage and recovery for Diablo not within the same subbasin. The MDWID Diablo water system is in the same subbasin as the City of Tucson's SAVSARP. Figure 5 depicts all of MDWID's six service areas. MDWID requested NIA water in its NIA water application only for MDWID Diablo to conform with ADWR's application guidelines. Figure 2 and Table 6 incorrectly portrays Metro using the NIA water at its other 5 service areas.</p> <p>I have attached an updated service area map for Diablo that was used in our most recent Designation of Assured Water Supply Modification. Please remove from Figure 2 MDWID's other service areas or note that only Diablo is the applicable service area and update the Diablo service area boundary. Lastly, please change Table 2 by adding Diablo after MDWID's name and changing the last column to Yes.</p>	<p>Comment Response 7: The Final EA was corrected accordingly.</p> <p>Comment Response 8: Figure 5 in the EA has been updated accordingly.</p> <p>Comment Response 9: The Final EA was corrected accordingly.</p>

Comment	Mike Block	Response
	<p>Mike</p> <p>On Tue, Jun 21, 2016 at 7:41 AM, Musser, Kimberly <kmusser@usbr.gov> wrote: The EA answers all of their questions. As an aside, we did public scoping, but it is not required on an EA. We did it to make sure the public was informed of the process.</p> <p>On Tue, Jun 21, 2016 at 7:37 AM, Mike Block <mblock@metrowater.com> wrote: Hi Kimberly,</p> <p>My apologies, I meant the comment letter referred to in the draft NIA EA received from Pima County during the scoping process.</p> <p>Mike</p> <p>Sent from my iPhone</p> <p>On Jun 21, 2016, at 7:00 AM, Musser, Kimberly <kmusser@usbr.gov> wrote:</p> <p>We don't have a comment letter on the draft NIA EA. The only comment we have from them is the one on the SAWRSA project, which should be published very soon. We haven't received any comments on the NIA EA yet.</p> <p>On Mon, Jun 20, 2016 at 5:10 PM, Mike Block <mblock@metrowater.com> wrote: Hi Kimberly,</p> <p>Could you please send me a copy of the comment letter from Pima County Regional Wastewater Reclamation Department mentioned in the draft NIA EA from the scoping comment period.</p> <p>Metro is hoping the letter will more fully elaborate how Pima County Regional Wastewater Reclamation Department derived that impacts would occur from the additional use of NIA Priority CAP water by M&I recipients on other water users in the Tucson AMA.</p> <p>Best regards, Mike</p> <p>— Kimberly Musser Environmental Protection Specialist U.S. Department of the Interior, Bureau of Reclamation Phoenix Area Office 6150 West Thunderbird Road Glendale, AZ 85306-4001</p>	

Comment	Mike Block	Response
	<p>623-773-6216 (office)</p> <p>-- Kimberly Musser Environmental Protection Specialist U.S. Department of the Interior, Bureau of Reclamation Phoenix Area Office 6150 West Thunderbird Road Glendale, AZ 85306-4001 623-773-6216 (office)</p> <p>-- Kimberly Musser Environmental Protection Specialist U.S. Department of the Interior, Bureau of Reclamation Phoenix Area Office 6150 West Thunderbird Road Glendale, AZ 85306-4001 623-773-6216 (office)</p> <p>-- Kimberly Musser Environmental Protection Specialist U.S. Department of the Interior, Bureau of Reclamation Phoenix Area Office 6150 West Thunderbird Road Glendale, AZ 85306-4001 623-773-6216 (office)</p> <p>-- Kimberly Musser Environmental Protection Specialist U.S. Department of the Interior, Bureau of Reclamation Phoenix Area Office 6150 West Thunderbird Road Glendale, AZ 85306-4001 623-773-6216 (office)</p>	

Comment	San Carlos Apache Tribe	Response
1	<p style="text-align: center;">SAN CARLOS APACHE TRIBE</p> <p style="text-align: center;">San Carlos Avenue P.O. Box 0 San Carlos, Arizona 85550 Phone (928) 475-2361 Fax (928) 475-2560</p> <p>Terry Rambler Tribal Chairman</p> <p style="text-align: right;">Tao Elpison Vice-Chairman</p>  <p style="text-align: center;">July 22, 2016</p> <p><i>Via U.S. Mail, Facsimile and Electronic Mail</i></p> <p>Leslie Meyers, Area Manager Kimberly Musser Bureau of Reclamation Phoenix Area Office U.S. Department of Interior 6150 W. Thunderbird Rd. Glendale, AZ 85306 Attention: PXAO-1500 E-Mail: cap_NIA@erowresources.com Facsimile: 623-773-6486</p> <p>Re: San Carlos Apache Tribe's Comments on the Draft Environmental Assessment for the Proposed Arizona Department of Water Resources Recommendation for the Reallocation of Non-Indian Agricultural Priority Central Arizona Project Water in Accordance with the Arizona Water Settlements Act of 2004</p> <p>Dear Area Manager Meyers:</p> <p>The San Carlos Apache Tribe ("Tribe") submits the following comments in response to the Draft Environmental Assessment for the Proposed Arizona Department of Water Resources Recommendation for the Reallocation of Non-Indian Agricultural Priority Central Arizona Project Water in Accordance with the Arizona Water Settlements Act of 2004 ("EA").</p> <p>It is with profound disappointment and disillusionment that the Tribe submits these comments on the draft EA proposed by the United States Bureau of Reclamation ("BOR"). The Tribe opposes the draft EA for a number of reasons, but foremost is the utter failure of BOR to engage in government-to-government consultation with Tribe in compliance with applicable</p>	<p>Comment Response 1: Your comments are noted. Reclamation has initiated and continues to engage in government-to-government consultation meetings with the San Carlos Apache Tribe regarding the Arizona Department of Water Resources' (ADWR) Non-Indian Agricultural (NIA) Priority Central Arizona Project (CAP) water reallocation recommendation.</p>


Comment	San Carlos Apache Tribe	Response
1 cont.	<p>Leslie Meyers Re: SCAT Comments on Draft EA NIA CAP Water July 22, 2016 Page 2 of 7</p> <hr/> <p>federal laws, Executive Orders, regulations and BOR policies and procedures. At a bare minimum, on behalf of the Tribe I urge and request that the draft EA process be discontinued until such time as BOR has engaged in meaningful government-to-government consultation with the Tribe and other stakeholder tribes.</p> <p>The draft EA proposes that Resolution Copper Mining ("RCM") be allocated 2,238 acre-feet annually ("AFA") out of a total of 46,629 AFA designated as Non-Indian Agricultural ("NIA") Priority Central Arizona Project ("CAP") Water, pursuant to the Arizona Water Settlements Act ("AWSA") of 2004 (Public Law (P.L.) 108-451, Section 104) and in accordance with Arizona Department of Water Resources ("ADWR") recommendations. The draft EA purports to comply with the requirement that the USBOR, as the lead federal agency, has complied with the National Environmental Policy Act of 1969, as amended ("NEPA"). It does not.</p> <p>First, the Tribe disputes that it ever received any notice of the initial public involvement and scoping process scoping notice identified in Section 1.2.3.2 of the draft EA. Unlike other BOR federal actions related to CAP Waters¹, no scoping notice was published in the Federal Register for this particular EA. The Tribe never received a scoping notice. The draft EA fails to adequately document that any scoping notice was provided to any Arizona tribe.</p> <p>Even if the Tribe had received a scoping notice, as the application process progressed, BOR was under an obligation to consult with the Tribe once BOR and ADWR, as a cooperating agency, became aware that RCM was an applicant for NIA reallocation. The Tribe has openly opposed RCM's mining project for over a decade, and the Tribe's opposition to the project simply cannot be a surprise to either BOR or ADR. The Tribe has regularly presented testimony before congressional committees in both the Senate and House of Representatives.² The Tribe's opposition to RCM's mining project has garnered local, national and international newsprint, social media and television coverage.³</p> <hr/> <p>¹ 37 FR 28082, December 20, 1972; 40 FR 17297, April 18, 1975; 41 FR 45883, October 18, 1976; 45 FR 52938, August 8, 1980; 45 FR 81265, December 10, 1980; 48 FR 12446, March 24, 1983; 56 FR 28404, June 20, 1991; 56 FR 29704, June 28, 1991; 57 FR 4470, February 5, 1992; 57 FR 48388, October 23, 1992; 65 FR 39177, June 23, 2000; 65 FR 43037, July 12, 2000; 67 FR 38514, June 4, 2002; 68 FR 36578, June 18, 2003; and 69 FR 9378, February 27, 2004; 71 FR 50499, August 25, 2006.</p> <p>² Transcripts of congressional testimony are available upon request.</p> <p>³ Examples of media coverage are available upon request.</p>	

Comment	San Carlos Apache Tribe	Response
<p>1 cont.</p> <p>2</p>	<p>Leslie Meyers Re: SCAT Comments on Draft EA NIA CAP Water July 22, 2016 Page 3 of 7</p> <hr/> <p>The Tribe has opposed RCM's mining project on multiple grounds.⁴ The Tribe disputes RCM's claims to a sustainable water supply. The Tribe disputes RCM's claim that the mining project will not impact local aquifers. The Tribe disputes that RCM's project will not adversely impact surface and groundwater quality. The Tribe disputes RCM's claims that the mining project will provide sustainable economic benefits to the region or particularly to the Tribe. The Tribe disputes the claim that RCM's project will not impact endangered and special status species.</p> <p>Most importantly, the Tribe vehemently disputes the determination that RCM's project will not negatively impact cultural resources and sites which are sacred to the Apache people. Recently, Chi'chil Bildagoteel (Oak Flats) Historic District, Pinal County was listed as a Traditional Cultural Property on the National Register of Historic Places. Innumerable sacred sites and cultural resources will be destroyed by RCM's mining project.</p> <p>Once BOR and ADWR were aware that RCM was an applicant for NIA reallocation CAP waters, it was incumbent upon BOR to engage in meaningful government-to-government consultation. A host of federal laws, Presidential Executive Orders, regulations and policies mandated the initiation of government-to-government consultation with the Tribe, as soon as possible in the EA process.⁵ BOR's Protocol Guidelines: Consulting with Indian Tribal Governments, along with a number of other legal authorities, mandated that consultation with Tribe should have been initiated by BOR. It was BOR's responsibility to institute these consultations and, very simply, it has so far failed to meet that obligation.</p> <p>The draft EA's casual claim that RCM's proposed mine is not a connected action within the meaning of NEPA defies a common sense, plain reading of the statute and the regulations.⁶ Draft EA at Section 3.1. The Tribe strongly disagrees with the draft EA determination that the proposed reallocation is not an integral part of the future development of the RCM mine; it is.</p> <hr/> <p>⁴ In appropriate government-to-government consultation, the Tribe will provide BOR and its cooperating agencies with its evidence that RCM's mining project is unsustainable on multiple levels. However, the Tribe is strongly of the judgment that sharing the Tribe's information and data is precisely why government-to-government consultation should have occurred before the draft EA was published.</p> <p>⁵ See e.g., National Historic Preservation Act ("NHPA") and its implementing regulations; American Indian Religious Freedom Act ("AIRFA"); Archaeological Resources Protection Act ("ARPA"); Native American Graves Protection and Repatriation Act ("NAGPRA"); NEPA and its implementing regulations; Presidential Memorandum of April 29, 1994; Executive Order ("EO") 13175; Secretarial Order ("SO") 3206.</p> <p>⁶ See 40 C.F.R. 1508.25 for definition of Connected Actions.</p>	<p>Comment Response 2: According to Resolution Copper Mine's (RCM) application to ADWR for a portion of the NIA Priority CAP reallocation water, and as indicated in its General Plan of Operation (GPO) (http://www.resolutionmineeis.us/documents/resolution-copper-gpo), the mine would utilize a mineral extraction and metallurgical processing groundwater withdrawal permit to supply all mining operation water needs that are not supplied by a renewable source. The amount of water RCM would receive, if the Proposed Action is approved and NIA Priority CAP water is available every year of the mine life, amounts to 18 percent of RCM's total water needs for the 42-year mine life of the project.</p> <p>An environmental impact statement (EIS) must be prepared by the Tonto National Forest (TNF) for the RCM project to proceed. The TNF EIS will address what, if any, impacts would result from the mining project on local aquifers, surface and groundwater quality, and endangered and special status species. It also will evaluate the socioeconomic impacts from the proposed mine including whether or not it provides sustainable economic benefits to the region or to the Tribe. That EIS is the appropriate process to engage in discussions regarding impacts from the proposed mine on the Tribe's religious and cultural values and practices.</p> <p>Reclamation's decision regarding whether to approve ADWR's NIA Priority CAP water reallocation recommendation will have no bearing on the TNF's Record of Decision regarding approval of the RCM's GPO. The two federal actions are not connected, for purposes of NEPA compliance. See also Comment Response 1. The EA has been revised to better reflect this position.</p>

Comment	San Carlos Apache Tribe	Response
2 cont.	<p>Leslie Meyers Re: SCAT Comments on Draft EA NIA CAP Water July 22, 2016 Page 4 of 7</p> <hr/> <p>Without a proven water supply⁷ to meet the demands⁸ of the mine, the mine is not a sound economic project. It no way can it be assured that RCM can lawfully withdraw groundwater to meet its requirements, because any withdrawal by RCM would cause a reduction of ground water in the Pinal AMA. Beyond this obvious observation, it is sophistry or worse for BOR and ADWR to argue that because the mine may never be permitted, RCM should be entitled to an NIA allocation. The Draft EA further posits that:</p> <p>2. The Proposed Action can proceed even if the proposed mines are not permitted prior to or simultaneously with the Secretary's approval. If approved, both proposed mines intend to store their allotment during pre-production to offset future withdrawals during production. If not approved, the allotments recommended for the proposed mines would be reverted to the pool for the next reallocation process. Regardless of when the mines are permitted and mineral extraction initiated, the proposed mines' ability to receive and store CAP water as part of the Proposed Action is independent of their mining action.</p> <p>Draft EA, Section 3.1 at 17. This statement is simply absurd and not rational. <i>But for</i> RCM's mining action, it would have no reason to apply for an allocation of NIA water. The mining activity is an integral part of RCM's water supply requirements and thus, its resulting application for an NIA allotment. To contend as BOR does, that the RCM mine is not connected to a CAP water allotment is simply wrong and misleading to both the federal government and the public at large.</p> <hr/> <p>⁷ RCM hopes to secure an adequate supply of water from the CAP – along with groundwater from mine dewatering—to supply its needs for ore processing. The Mining Plan of Operations ("MPO") describes pumping water from banked CAP recovery wells located in the vicinity of the MARRCO/Filter Plant and Loadout Facility. The MARRCO corridor extends 28 miles to the southwest, far into the valley. This shows that there will be groundwater impacts from this project many miles away from the actual mine site. The draft Tonto National Forest ("TNF") Environmental Impact Statement ("EIS") needs to evaluate hydrogeological impacts of this valley pumping program. RCM has also stated that it would utilize Type II water rights to make up the difference if insufficient CAP water is available in future years. It is not clear where this groundwater would actually come from and the draft TNF EIS would evaluate the potential environmental impacts of extracting this groundwater.</p> <p>⁸ The Tribe and its experts dispute that RCM's water demands are known at that time. The MPO has significant deficiencies and basic data must still be developed by RCM. The Tonto National Forest has just started its environmental analysis of the mine and any draft EIS is years away.</p>	

Comment	San Carlos Apache Tribe	Response
<p>2 cont.</p> <p>3</p>	<p>Leslie Meyers Re: SCAT Comments on Draft EA NIA CAP Water July 22, 2016 Page 5 of 7</p> <hr/> <p>Similarly, the draft EA statement at Section 3.1, p. 17, does not withstand scrutiny. The statement reads:</p> <p>3. Because each proposed mine's receipt of CAP water is not contingent on mine approval, the Proposed Action does not depend upon the proposed mines. None of the proposed or active mines depend upon receipt of CAP water to proceed with their mining actions. Therefore, Reclamation believes these actions are not interdependent parts of a larger action, nor do they depend on a larger action for their justification.</p> <p>This statement defeats the very fundamental purpose of the reallocation of NIA CAP water to <i>current</i> municipal and industrial users. If ADWR had recommended reallocation of NIA waters <i>only</i> to applicants who would be the speculative beneficiaries of the waters, why engage in a reallocation at this time at all? The statement does not withstand critical scrutiny in light of the purpose of the AWSA and the reallocation of NIA CAP waters <i>at this time</i> to recipients who will be the <i>current users of the allocation</i>.</p> <p>BOR has failed to conduct a meaningful environmental analysis of the proposed allocation of NIA CAP water to RCM. BOR's explanation for not conducting an EIS appears to have been drafted simply to avoid the reality that the reallocation of CAP Water is a critical component to the ultimate development of RCM's mine.</p> <p>The United States should not enable the religious discrimination, and the disproportionate environmental impact on the Apache people as an ethnic and linguistic minority. BOR's parsing of the proposed action to reallocate CAP Water to RCM by the Secretary cannot obscure the whole picture. The reallocation of the CAP Water is a "connected action" to the ultimate development of the RCM mining project, a prima facie fact, which the BOR has swept under the rug with a short, summary conclusion that an EIS is not required. This superficial justification does not negate the fact that this proposed action by the Secretary is a "connected action" and a key component of a major Federal action affecting the human environment.</p> <p>Furthermore, in Section 3.6.2 of the RCM's MPO,⁹ RCM states: "The primary water source for the Project (supply water) will be CAP water." However, this statement ignores the current reality challenges faced by CAP after the worst drought in recent history. Arizona is the junior priority claimant to CAP water. In December 2007, BOR, through the Secretary of the Interior, adopted "Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead" whereby all of the Lower Basin States</p> <hr/> <p>⁹ Available at www.resolutionmineeis.us.</p>	<p>Comment Response 3: The Arizona Water Settlements Act of December 10, 2004, Public Law 108-451 (AWSA), authorized and directed the Secretary of the Interior to carry out all necessary reviews of the proposed reallocation in accordance with applicable Federal law. The AWSA clearly states Reclamation may only approve or disapprove ADWR's NIA Priority CAP water reallocation recommendation. The law does not allow for other alternatives to be evaluated. The EA text has been revised to clarify this point.</p> <p>RCM has been actively purchasing excess CAP water and has already accrued approximately 312,000 acre feet (AF) of long-term storage credit of the 500,000 AF estimated to be needed for the life of the mine. If the Proposed Action is approved and NIA Priority CAP water is available every year of the mine life, RCM could receive 2,238 AF annually.</p> <p>Whether future conditions would reduce the amount of CAP water available for delivery under the Proposed Action is unknown. The purpose of the project is to reallocate NIA Priority CAP water for M&I use pursuant to the AWSA and according to ADWR's recommendation. ADWR's recommendation was completed in 2014 and this EA is being completed pursuant to the AWSA.</p>

Comment	San Carlos Apache Tribe	Response
<p>3 cont.</p> <p>4</p> <p>5</p>	<p>Leslie Meyers <i>Re: SCAT Comments on Draft EA</i> <i>NIA CAP Water</i> July 22, 2016 Page 6 of 7</p> <hr/> <p>(California, Arizona, and Nevada) agreed to cutbacks in Colorado River water entitlements upon reaching certain water shortage benchmarks.</p> <p>Since 2007, the drought has worsened and the Secretary of the Interior has called for more drastic cuts than the cuts that what was initially mandated under the Interim Guidelines. Negotiations are currently underway among the Lower Basin States calling for further cuts to Colorado River entitlements. It has been reported that Arizona would face cuts of up to 2.8 million acre-feet of CAP water and could lose as much as 40 percent of its current CAP allotment.</p> <p>Arizona and the CAP Tribes face the eminent possibility of a declaration of water shortage on the Colorado River. The declaration of shortage on the Colorado River will result in the reduction of certain categories of CAP Water. Reallocation at this time would increase the contract rights of certain high priority CAP Water users while simultaneously ignoring the real threat that the CAP Water available to satisfy M&I priority CAP Water would be reduced as a result of the declaration of shortage by the Secretary. Frankly, we believe that the reallocation of NIA water at this time is neither a prudent nor responsible course of action at this time.</p> <p>Finally, the Tribe would point out that RCM is owned by two foreign corporate conglomerates: BHP, an Anglo-Australian company, and Rio Tinto, a British-Australian corporation, of which the Aluminum Corporation of China, Ltd., a company owned by the Communist Chinese Government has a 9% ownership stake. All profit from the proposed RCM mining project would therefore go to off-shore interests. The reallocation of CAP Water enables RCM to remove critical copper and other metal resources, while depriving other Arizona interests of the CAP water which is critical to the present and future life and economic future of Arizona.</p> <p>Conclusion</p> <p>The Tribe is of the opinion that the failure of BOR and its cooperating agencies to engage with the Tribe in government-to-government consultation constitutes an actionable disregard of BOR's tribal consultation mandates. The Tribe believes that injunctive relief from the Federal District Court would be available to the Tribe. The draft EA might withstand scrutiny if Resolution Copper Mining and Rosemont Copper Company¹⁰ were removed as proposed recipients of the reallocation. As speculative beneficiaries of any reallocation, Resolution and Rosemont should not be allotted any CAP NIA water.</p> <p>I thank you for the opportunity to present these comments. The Tribe requests government-to-government consultation in order to further explicate our views contained herein and to further explain the Tribe's opposition to the draft EA and the draft EA's deficiencies. It is</p> <p>¹⁰ The Tribe believes that BOR's analysis of the Rosemont Copper mining project is subject to the same objections as are set forth here as they pertain to RCM.</p>	<p>Comment Response 4: Your comment is noted.</p> <p>Comment Response 5: Thank you for your comment. Reclamation must either approve ADWR's recommendation in total, or disapprove it in total; we are unable to change or revise the recommendation prior to our decision.</p>

Comment	San Carlos Apache Tribe	Response
	<p>Leslie Meyers Re: SCAT Comments on Draft EA NIA CAP Water July 22, 2016 Page 7 of 7</p> <hr/> <p>my hope and that of the Tribe that you immediately cease any further work on the draft and commence consultation as soon as possible with the Tribe and all other tribes in Arizona.</p> <p>Sincerely, SAN CARLOS APACHE TRIBE</p> <div> Terry Rambler Chairman</div> <p>Cc: Sally Jewell, Secretary of Interior Mike Connor, Deputy Secretary of Interior Kimberly Musser, kmusser@BOR.gov Lawrence Marquez, BOR Native American Affairs Office Manager, LMarquez@BOR.gov Thomas Buschatzke, ADWR Director, tbuschatzke@azwater.gov Neil Bosworth, Tonto National Forest Supervisor Nanebah Nez, TNF Archaeologist Maria Dadgar, Exec. Dir., ITAA Tao Etipison, Vice Chairman Members of the Council Vernelda Grant, THPO A.B. Ritchie, Tribal Attorney General Water Team File</p>	

Comment	Save the Scenic Ritas	Response
	<div> </div> <p>July 22, 2016</p> <p>Bureau of Reclamation ("BOR") Phoenix Area Office Attn: Kimberly Musser (PXA0-1500) 6150 West Thunderbird Road Glendale, AZ 85306-4001</p> <p>Sent via email: cap_NIA@ernresources.com</p> <p>To whom it may concern:</p> <p>This letter serves as the comments of Save the Scenic Santa Ritas (SSSR) and Center for Biological Diversity (CBD) regarding the Draft Environmental Assessment (DEA) for the Recommendation for the Reallocation of Non-Indian Agriculture Water within the Central Arizona Project (CAP) System in accordance with the Arizona Water Settlements Act of 2004 ("Reallocation Decision"). SSSR/CBD incorporate by reference as if fully set forth herein their previous comments submitted to the BOR on this issue, including SSSR's December 15, 2015 comments on the Reallocation Decision as well as SSSR's previous comments to the BOR's NEPA processes related to the proposed Rosemont Mine, one of the beneficiaries of the reallocation of the CAP non-Indian agriculture water (i.e., SSSR's 2010 comments on the revised draft Environmental Assessment (EA) for the Community Water Company of Green Valley Central Arizona Project Water Delivery System, which were attached and incorporated by reference in the 2015 comments).</p> <p>Overall, as detailed in these and previous comments, the Draft EA and the BOR's proposed approval of the Allocation Recommendations submitted by the Arizona Department of Water Resources (ADWR) violate numerous federal laws including the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the National Historic Preservation Act (NHFA), the Arizona Water Settlements Act of 2004, Public Law P.L. 108-451 (AWSA),¹ various laws related to the Central Arizona Project, and the implementing regulations and policies of these laws.</p> <p>At a minimum, the BOR cannot issue a Final EA and Finding of No Significant Impact (FONSI) and must prepare a complete Environmental Impact Statement (EIS) under NEPA</p> <p>¹ Overall, because the AWSA requires the BOR to comply with all federal laws in making its decisions regarding the CAP water, the violations of the laws noted herein constitute a violation of the AWSA and related CAP laws.</p> <p>1</p>	

Comment	Save the Scenic Ritas	Response
1	<p>before considering whether to approve the ADWR Recommendations. Further, BOR must immediately initiate consultation with the federal Fish and Wildlife Service (FWS) and otherwise comply with the ESA due to the adverse impacts to ESA-listed species that may be affected. Similar consultation with Native American Tribes is required under the NHPA and laws, regulations, and Executive Orders regarding impacts to historical, cultural and other resources that may be affected by the delivery of the water allocations themselves as well as the various projects that will receive and use the proposed water allocations.</p> <p>Regarding the Rosemont Mine, ADWR recommends, and BOR proposes to authorize, 1,124 AFA (acre-feet annually) to be delivered and used by the Mine as part of its proposed operations. DEA at 14 (Table 1). None of the impacts to environmental, cultural, historical, and other resources caused by the proposed Mine have been reviewed, at all, by BOR or its DEA. The same is true for the other activities/projects proposed to receive and use the proposed Allocations listed in DEA Table 1. As detailed below, the failure to analyze these impacts violates NEPA and the other laws/regulations/policies noted herein.</p> <p>The proposed reallocation of Non-Indian Agriculture CAP water to the Rosemont Mine cannot be legally authorized</p> <p>In addition to the other issues/reasons noted herein, BOR cannot approve the proposed Rosemont Copper Co. allocation (1,124 AFA) for the following reasons:</p> <ol style="list-style-type: none"> 1. The US Forest Service has not yet approved Rosemont's proposed Mining Plan of Operations nor has the US Army Corps of Engineers issued a key Clean Water Act permit. Thus, premature approval of an allocation for an as-yet-unapproved project may remove available water that could be allocated for other, existing uses. BOR has an obligation to ensure that the public interest is served by its allocation decisions. 2. Rosemont intends to recharge its proposed CAP allocation into a Green Valley Community Water Co. underground storage facility ("USF"), which is within the Tucson AMA. Rosemont intends to withdraw groundwater from wells that may or may not be within the "area of impact" of the USF. A.R.S. §45-802.01(2). Thus, it is not known whether Rosemont's pumped groundwater would be legally deemed "CAP water" or "groundwater." 3. Rosemont apparently intends to transport the pumped groundwater from <i>within the Tucson AMA</i> to a point of use <i>outside the Tucson AMA</i>. Depending upon how the pumped groundwater is legally characterized, transportation of pumped groundwater from within the Community Water Company "service area" to use outside the Community Water Company "service area" may be prohibited, restricted, or burdened. <i>See generally</i>, 43 U.S.C. §1524 and legislative history, A.R.S. §§45-543 and 45-491 to 45-498, and Master Repayment Contract <u>Between the United States and the Central Arizona Water Conservation District §8.8(b)(iv)</u>. Each of these issues must be fully analyzed in the revised Draft EA or EIS. 	<p>Comment Response 1: The U.S. Forest Service (USFS) issued a Record of Decision (ROD) for the Rosemont Copper Mine on June 7, 2017. The current status of the U.S. Army Corps of Engineers' Clean Water Act Section 404 permit, SPL-2008-00816 is unknown. Nevertheless, the Arizona Department of Water Resources (ADWR) concluded that Rosemont Copper Mine's recharge of Non-Indian Agricultural (NIA) Priority Central Arizona Project (CAP) reallocated water, until the mine becomes operational or it is not permitted to operate, would be a legitimate use and included it in its recommendation to Reclamation. While Reclamation must approve or disapprove ADWR's recommendation, Reclamation's primary interest in preparing this EA is to determine whether or not the NIA Priority CAP water reallocation recommendation would result in significant impacts, which would require preparation of an environmental impact statement (EIS). Reclamation does not intend to commandeer ADWR's process or priorities in allocating this water.</p> <p>Under the Arizona recharge program, banked CAP water retains its same CAP legal characteristic when it is recovered. If Rosemont Copper Mine is recharging its CAP allocation, then whatever it recovers is also deemed CAP water. Please see the recovery well permit statute for additional information (A.R.S. 45-834.01).</p> <p>Reclamation is unaware of any plans by Rosemont Copper Mine to pump water from within their service area for use outside of their service area.</p>

Comment	Save the Scenic Ritas	Response
2	<p>The Proposed reallocation of Non-Indian Agriculture CAP water to Rosemont is a connected action to the proposed Rosemont Mine, thus requiring that the impacts from the Rosemont Mine be fully analyzed by the BOR.</p> <p>As admitted in the DEA, Rosemont intends to use CAP water to support operations at its proposed mine in the Santa Rita Mountains. Consequently, the significant impacts of the mine need to be evaluated in the context of this reallocation of CAP water to Rosemont.</p> <p>As noted in the Forest Service's FEIS prepared for the Rosemont Project, "Rosemont Copper has committed to recharging available Central Arizona Project water to offset pumping. The location of the recharge may not be in the vicinity of the mine water supply wells, although Rosemont Copper has entered into an agreement with the Community Water Company for the construction of a pipeline to the Sahuarita area that would allow for recharge near the pumping wells." (p. XXIX). The Rosemont FEIS further notes that "[a] review found obtaining Central Arizona Project direct delivery water to offset groundwater pumping would not be feasible unless Rosemont Copper could acquire a guaranteed Central Arizona Project allocation of municipal and industrial water for the life of the mine." (p. 111)</p> <p>It is indisputable that the reallocation of the non-Indian Ag CAP water is directly connected to the proposed Rosemont Mine. As such, a full (EIS) must be prepared to examine the range of environmental impacts that will arise from BOTH this reallocation and the impacts of the proposed Rosemont mine.</p> <p>The DEA asserts that the Rosemont Mine is not a "connected action" under NEPA, and thus its impacts do not have to be analyzed by the BOR. DEA at 16-18. This assertion contradicts statements by Rosemont that the CAP water and the mine are interdependent. As stated by Rosemont, in explaining the source of the Mine's water: "Water Sources: The initial source will be groundwater withdrawn from wells in the Upper Santa Cruz sub-basin of the Tucson AMA basin and replenished with Colorado River water delivered by the Central Arizona Project (CAP)." <i>Rosemont Copper: Sustainable Water Supply. The Facts</i> (attached).</p> <p>Regarding the other projects/activities that will receive the CAP water as proposed by the BOR, except for a brief discussion of DEA's refusal to review the Resolution Mine as a connected action (itself unsupported by the facts), the DEA improperly fails to review the impacts from these other projects/activities as connected actions under NEPA.</p>	<p>Comment Response 2: The USFS' issuance of its ROD was not contingent upon use of any CAP water, including NIA Priority CAP reallocated water. The USFS' EIS evaluated impacts from operation of the mine, including but not limited to use of groundwater pumped from Rosemont's recovery wells in the Upper Santa Cruz Subbasin. The EIS assumed all water needed for mining operations would be supplied by these recovery wells – a total of 99,600 acre-feet (AF) over the life of the project, with permitted water use of up to 120,000 AF (6,000 AF annually) under its Mineral Extraction and Metallurgical Processing Groundwater Withdrawal Permit No. 59-215979.0000, issued by ADWR on January 18, 2008 (Rosemont Copper Mine Final EIS, p. 320). Thus, while Rosemont Copper Mine intends to continue to recharge CAP water within the Tucson AMA, there is no requirement that recharge must occur for the mine to operate. As stated in the Rosemont Copper Mine Final EIS, "With respect to the Upper Santa Cruz Subbasin, the mitigation measures are intended to reduce drawdown from pumping as much as possible through recharge and then mitigate remaining effects through the well owner protection program." (id., p. 360). Without any recharge of CAP water, Rosemont Copper Mine would be required to mitigate all effects through the well owner protection program.</p> <p>Similarly, Resolution Copper Mine intends to utilize a mineral extraction and metallurgical processing groundwater withdrawal permit to supply all mining operation water needs that are not supplied by a renewable source. Reclamation's decision regarding whether to approve ADWR's NIA Priority CAP water reallocation recommendation will have no bearing on the Tonto National Forest's ROD; thus, the two federal actions are not connected, for purposes of NEPA compliance. See also Comment Response 1.</p>
3	<p>Even if the allocation and delivery of CAP water to the Rosemont Mine (and other recipients) are not "connected actions" to these activities/projects, the BOR must fully review the indirect and cumulative impacts of the Mine (and other recipients' activities/projects), as well as the impacts from the "cumulative actions" of these activities/projects</p> <p>Because the DEA asserted that the Rosemont Mine was not a "connected action" under NEPA, BOR believes that it does not have to analyze the impacts from the Mine, (and presumably the other projects/activities proposed to receive water since their impacts were also not reviewed). Regardless of whether the Mine and other projects/activities are "connected</p>	<p>Comment Response 3: The EA has evaluated indirect and cumulative impacts associated with the Proposed Action to the degree those impacts are reasonably foreseeable, and not speculative or totally unknown. Where potential future impacts would occur from a Proposed Recipient's construction of infrastructure to take and use its NIA Priority CAP water allocation, but no other details are known about the associated location of, or amount of ground disturbance anticipated by, this infrastructure, environmental clearances cannot be evaluated until those details are known. Each CAP water service subcontract includes a clause that states, in part, "notwithstanding any other provision of this subcontract, Project Water shall not be delivered to the Subcontractor unless or until the Subcontractor has obtained final environmental compliance from the United States..." This is to ensure that site-specific environmental compliance would be completed prior to delivery of any of the reallocated water. Compliance with the National Historic Preservation Act (NHPA) and Endangered Species Act (ESA), as appropriate, would be completed at that time.</p>

Comment	Save the Scenic Ritas	Response
		<p>As mentioned in these comments, Reclamation's NEPA Handbook indicates potential indirect effects are only meaningfully analyzed if they are measurably different from no action conditions. For this Proposed Action, there is little difference between the No Action and the Proposed Action because Proposed Recipients are anticipated to find other sources of water to fulfill their water demands in the absence of receiving NIA Priority CAP reallocated water. The main difference would be the source of water used under the No Action, and any infrastructure constructed to take and use the NIA Priority CAP reallocated water under the Proposed Action, where none currently exists. For entities that do not yet have detailed plans for such infrastructure, it is not possible to describe or evaluate the impacts resulting from ground-disturbing activities associated with construction; these impacts would be evaluated once those plans have been identified (see above).</p> <p>Section 3.2.1 of the EA briefly summarized several past, present, and reasonably foreseeable actions that met the following criteria and were included in the cumulative effects analysis (EPA 1999; Council on Environmental Quality 1997a):</p> <ul style="list-style-type: none"> • The potential impacts of the future action would occur within the same geographic area (analysis area) and during the same time as the potential impacts of the Proposed Action. • The future action may affect the same environmental resources as the Proposed Action. • There is a reasonable expectation the future action would occur; the future action is not speculative. • There is sufficient information available to define the future action and assess potential cumulative impacts.

Comment	Save the Scenic Ritas	Response
	<p>actions," NEPA and other laws require BOR to review the indirect and/or cumulative impacts from these projects/activities. That was the express holding by the Ninth Circuit in <u>Great Basin Mine Watch v. Hankins</u>, 456 F.3d 955 (9th Cir. 2006), where the court affirmed the agency's decision that two nearby mines were not "connected actions," but nevertheless held that the EISs for each mine violated NEPA because the EISs failed to analyze the cumulative impacts from the other mine.</p> <p>Indeed, the BOR's NEPA Handbook expressly requires that the impacts from actions that are not considered "connection actions" under NEPA still must be fully analyzed, "whether or not" the BOR decision is the principal cause of the impacts. In discussing BOR's duties to review indirect impacts, the Handbook states:</p> <p style="padding-left: 40px;">Although indirect impacts are frequently difficult to identify and measure, the indirect impacts that can reasonably be expected to occur, should Reclamation proceed with a given proposal, need to be analyzed. However, such potential indirect effects can only be meaningfully analyzed if they are measurably different from no action conditions.</p> <p style="padding-left: 40px;">Indirect effects, as defined in the CEQ regulations (40 CFR 1508.8(h)), may include growth-inducing effects, changes in land use, changes in population density, or changes in growth rate and related effects on natural systems. The potential for a Reclamation proposal to cause these types of indirect effects must be examined in light of <i>whether the proposal is the principal cause of these effects (the "but-for" issue) or is incidental (secondary) to effects that are likely to occur anyway because of some other activities.</i></p> <p>BOR NEPA Handbook, at 8-17 (emphasis added). http://www.usbr.gov/nepa/docs/NEPA_Handbook2012.pdf. At most the DEA briefly mentions that impacts to wildlife, water, cultural resources, land use and a few other resources will or may occur – but no detailed analysis is provided at all. Certainly not the "hard look" at these impacts and consequences required by NEPA.</p> <p>The DEA also illegally limits its cumulative impacts review. "Because of the nature of the Proposed Action and the extensive analysis area, only select municipal planning projects or other site-specific actions are included in the cumulative effects analysis." DEA at 18. This is despite noting that, under NEPA, the agency must review the cumulative impacts of all "reasonably foreseeable future actions": "Reasonably foreseeable future actions" are defined as actions that are not speculative—they have been approved, are included in planning and budget documents prepared by the individual(s), or are likely to occur given trends (Environmental Protection Agency (EPA) 1999)." DEA at 18. In addition to failing to review the cumulative impacts of these actions, some resources are not reviewed at all, based on the BOR's self-imposed, and improper, decision to limit its scope of review. "Due to the nature of the Proposed Action, the following resource areas are not anticipated to be affected to any measurable degree and, therefore, are not included in the analysis: air quality, geology and soils, recreation resources, and visual resources." DEA at 59.</p> <p>There is no doubt that the Rosemont Mine and all or almost all of the projects/activities listed in DEA Table I are either proposed, ongoing, or approved – i.e., not "speculative." Further, there is little to no mention of other projects/activities in the area (besides those listed in</p>	

Comment	Save the Scenic Ritas	Response
	<p>Table 1) that may have indirect or cumulative impacts to water quality and quantity, air quality, wildlife, recreation, cultural/historical/religious, socioeconomic, and other potentially affected resources. Overall, the BOR's decision to limit its review to just the immediate impacts from the water delivery facilities (which even here the DEA fails to review even these impacts fully) improperly limits the scope of its NEPA/ESA/NHPA analysis.</p> <p>As just one example, regarding wildlife, in asserting that impacts from these projects need not be considered, the DEA states: "Potential indirect impacts on wildlife habitat from the installation of any new water infrastructure are impossible to quantify since the specific locations of potential pipelines or USFs have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal or tribal laws and regulations." DEA at 33.</p> <p>This rationale is repeated for all or almost all of the other potentially affected resources (e.g., cultural/historical/religious, air and water, soils/land). The DEA makes essentially the same statement for cultural/historical resources, arguing that: "Any attempt to quantify impacts from additional development, such as impacts on cultural resources that may result from land clearing activities, is speculative because the specific location of the infrastructure is unknown at this time." DEA at 36.</p> <p>Another example, regarding species listed under the ESA, the DEA states that:</p> <p>Potential indirect disturbance or habitat effects for listed species from the installation of new water facilities (e.g., treatment plants or pipelines) are impossible to quantify in this analysis since the specific locations have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA. Therefore, future developments by the Proposed Recipients would be analyzed under a separate NEPA analysis to ensure effects on listed species are addressed. Without conceptual plans and/or locations of potential developments, determining effects on listed species from new developments is not currently possible.</p> <p>DEA at 34. The DEA also states that: "The City of Buckeye and the three mines are proposing to construct infrastructure for delivery and storage of CAP water from the reallocation. These projects would be covered under a separate environmental compliance process, as stated in the terms of their contracts." DEA at 25.</p> <p>As shown herein, however, the BOR cannot rely on the fact that other agencies may review the impacts from these projects in the future to avoid reviewing them now. First, many of these projects would not involve federal agencies, and thus no NEPA, ESA, or NHPA review would occur. The Ninth Circuit has expressly held that a federal agency may not rely on future state or local permitting to avoid its NEPA obligations. "BLM argues that the off-site impacts need not be evaluated because the Goldstrike facility operates pursuant to a state permit under the Clean Air Act. This argument also is without merit. A non-NEPA document - let alone one prepared and adopted by a state government - cannot satisfy a federal agency's obligations under NEPA. <i>Klamath-Siskiyou Wildlands Center v. BLM</i>, 387 F.3d 989, 998 (9th Cir. 2004)." <i>South Fork Band Council v. U.S. Dept. of Interior</i>, 588 F.3d 718, 726 (9th Cir. 2009).</p>	

Comment	Save the Scenic Ritas	Response
	<p>One recent case specifically found that the BOR cannot defer NEPA analysis to future analysis, even those currently undergoing NEPA review in other contexts. The court rejected the BOR's argument that such future and current reviews satisfy its duties to review the impacts from the current project under review.</p> <p>Federal Defendants are also correct that NEPA analyses are being prepared in connection with these cases. <i>See id.</i> However, the NEPA analysis associated with these ESA cases is not yet complete. <i>Id.</i> (indicating remand, including completion of NEPA analysis, will not be complete until December 1, 2013 according to current schedule in the Consolidated Delta Smelt Cases and April 29, 2016 in the Consolidated Salmonid Cases). Federal Defendants fail to explain how an EA can tier off of a non-existent EIS.</p> <p><i>Pacific Coast Federation of Fisherman's Associations v. U.S. Dept. of Interior</i>, 929 F.Supp.2d 1039, 1059 (E.D. Cal. 2013)(citations omitted).</p> <p>For projects that may undergo future federal agency review, the BOR cannot defer analysis of the direct, indirect, and cumulative impacts from these projects to future NEPA (or ESA/NHPA, etc.) review. Further, the DEA's conclusion that impacts from these projects "are impossible to quantify in this analysis since the specific locations have not been identified" defies logic, as the "specific location" of many of these projects have been identified and are known by the BOR.</p> <p>For many of these projects, such as the Rosemont and Resolution Mines (and other projects listed in Table 1), specific plans have been submitted to various federal, state, and local agencies – i.e., they are not "speculative" or "impossible" to ascertain as alleged by the DEA. For example, the U.S. Forest Service is currently accepting public comments on the proposed Resolution Mine. 81 Fed. Register 14829-832 (March 18, 2016). The Rosemont Mine is currently undergoing Forest Service consideration. <i>See</i> http://www.rosemonteis.us/</p> <p>The approval or denial by BOR of ADWR's recommended Allocations may result in different operational impacts to environmental and other resources from the facilities proposed to receive the CAP water. For example, for water resources, the DEA states that:</p> <p>Because the current list of Proposed Recipients have forecasted water demand that is greater than their sustainable supply, the No Action alternative of rejecting ADWR's recommendation would have an adverse impact because their water demand would result in continued pumping of groundwater, which is a nonrenewable supply. Under the No Action alternative, Sierrita Mine would continue to pump groundwater from the Tucson AMA to meet its operational needs of 23,098 AFA and no CAP water would be recharged in the near term to offset its consumption. The remaining Proposed Recipients would likely seek to obtain alternative water supplies, if available, to meet their demand-supply imbalance or rely on accrued groundwater credits or continued groundwater pumping.</p> <p>DEA at 47-48. Thus, at a minimum, the DEA's conclusion that "There would be no changes to land ownership and use of federal or tribal lands or to the lands managed by Reclamation for the CAP canal or associated infrastructure as a result of the No Action alternative," DEA at 25,</p>	

Comment	Save the Scenic Ritas	Response
	<p>is wrong, as denial of the CAP water allocations to the mines may “change ... use of federal ... land.”</p> <p>Under NEPA, BOR must fully review the impacts of all “past, present, and reasonably foreseeable future actions.” These are the “cumulative effect/impacts” under NEPA. To comply with NEPA, the USFS must consider all direct, indirect, and cumulative environmental impacts of the proposed action. 40 CFR §§ 1502.16, 1508.8, 1508.25(c). Direct effects are caused by the action and occur at the same time and place as the proposed project. 40 CFR § 1508.8(a). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. 40 CFR § 1508.8(b). Both types of impacts include “effects on natural resources and on the components, structures, and functioning of affected ecosystems,” as well as “aesthetic, historic, cultural, economic, social or health [effects].” <i>Id.</i> Cumulative effects are defined as:</p> <p>[T]he 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.</p> <p>40 CFR § 1508.7. In a cumulative impact analysis, an agency must take a “hard look” at all actions.</p> <p>An EA’s analysis of cumulative impacts must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment. ... Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide.</p> <p><u>Te-Moak Tribe of Western Shoshone v. U.S. Dept. of Interior</u>, 608 F.3d 592, 603 (9th Cir. 2010).</p> <p>The NEPA obligation to consider cumulative impacts extends to all “past,” “present,” and “reasonably foreseeable” future projects. <u>Blue Mountains</u>, 161 F.3d at 1214-15; <u>Kern</u>, 284 F.3d at 1076; <u>Hall v. Norton</u>, 266 F.3d 969, 978 (9th Cir. 2001) (finding cumulative analysis on land exchange for one development failed to consider impacts from other developments potentially subject to land exchanges); <u>Great Basin Mine Watch v. Hankins</u>, 456 F.3d 955, 971-974 (9th Cir. 2006) (requiring “mine-specific ... cumulative data,” a “quantified assessment of their [other projects] combined environmental impacts,” and “objective quantification of the impacts” from other existing and proposed mining operations in the region). <i>See also Oregon Natural Resources Council Fund v. Brong</i>, 492 F.3d 1120, 1133 (9th Cir. 2007); <u>ONRC v. Goodman</u>, 505 F.3d 884, 893 (9th Cir. 2007). The requirement for a full cumulative impacts analysis is required in an EA, as well as in an EIS. <i>See Te-Moak Tribe of Western Shoshone</i>, 608 F.3d 592, 603 (9th Cir. 2010) (rejecting EA for mineral exploration that had failed to include a detailed analysis of impacts from nearby proposed mining operations).</p>	

Comment	Save the Scenic Ritas	Response
	<p>In one leading case, the agency was required to review the impacts from the burning of coal when reviewing the proposed railway access and transportation of the coal. <u>Mid States Coalition for Progress v. Surface Transportation Board</u>, 345 F.3d 520, 548-550 (8th Cir. 2003). This was required even though the power plants using the coal were hundreds of miles away. A similar result was reached in <u>High Country Conservation Advocates v. United States Forest Service</u>, 52 F.Supp.3d 1174, 1196-97 (D. Colo. 2014)(agency violated NEPA by failing to review impacts of burning coal when considering coal leasing proposal). Courts have even required federal agencies to review the environmental impacts occurring in a foreign country related to the approval of projects in the United States. <u>Government of the Province of Manitoba v. Salazar</u>, 691 F.Supp.2d 37, 51 (D.D.C., 2010).</p> <p>In addition to the fundamental cumulative impacts review requirements noted above, NEPA regulations also require that the agency obtain the missing "quantitative assessment" information. 40 CFR § 1502.22. "If there is 'essential' information at the plan- or site-specific development and production stage, [the agency] will be required to perform the analysis under § 1502.22(h)." <u>Native Village of Point Hope v. Jewell</u>, 740 F.3d 489, 499 (9th Cir. 2014).</p> <p>Here, the adverse impacts from the Mine and other projects/activities when added to other past, present or reasonably foreseeable future actions, including the BOR's actions, is clearly essential to the BOR's determination (and duty to ensure) that its actions comply with all legal requirements and minimizes all adverse environmental impacts.</p> <p>Thus, in this case, the BOR failed to fully consider the cumulative impacts from all past, present, and reasonably foreseeable future projects in the region on, at a minimum, water and air quality including ground and surface water quantity and quality, recreation, cultural/religious (including its duties under the National Historic Preservation Act), wildlife, transportation/traffic, scenic and visual resources, etc. At a minimum, this requires the agency to review fully, and subject such review to public comment in a revised draft EA or EIS, the cumulative impacts from all other mining, grazing, recreation, energy development, roads, etc., in the region.</p> <p>BOR's attempt to bypass review of these impacts violates NEPA. The fact that other agencies may review these other projects does not mean that their impacts can be ignored. If that were true, then a federal agency would never have to review the cumulative impacts of "proposed" projects since it is possible that every project under review could change somewhat. Federal courts have consistently rejected such a short-sighted view of NEPA.</p> <p>NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done. <i>See Save Our Ecosystems v. Clark</i>, 747 F.2d 1240, 1246 n. 9 (9th Cir.1984) ("Reasonable forecasting and speculation is ... implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry,'" quoting <i>Scientists' Inst. for Pub. Info, Inc. v. Atomic Energy Comm'n</i>, 481 F.2d 1079, 1092 (D.C.Cir.1973)).</p> <p><u>Kern v U.S. Bureau of Land Management</u>, 284 F.3d 1062, 1072 (9th Cir. 2002).</p>	

Comment	Save the Scenic Ritas	Response
4	<p>Even projects that have not reached the formal proposal stage (which is not the case here, since as noted herein these projects are already proposed) are considered "reasonably foreseeable" and must be reviewed in this EA or EIS. <i>Northern Plains Resource Council, Inc. v. Surface Transp. Bd.</i>, 668 F.3d 1067, 1078-79 (9th Cir. 2011). See also <i>Center for Biological Diversity v. Bureau of Land Management</i>, 937 F.Supp.2d 1140, 1157 (N.D. Cal. 2013) citing <i>City of Davis v. Coleman</i>, 521 F.2d 661, 676 (9th Cir.1975) and <i>Northern Plains</i>, 668 F.3d at 1079; <i>Connor v. Burtford</i>, 848 F.2d 1441 (9th Cir. 1988) [future impacts of drilling must be analyzed when preparing NEPA document for oil and gas lease]; <i>Colorado Environmental Coalition v. Office of Legacy Management</i>, 819 F.Supp.2d 1193, 1209-09 (D. Colo. 2011) [impacts from future, as-yet-un-proposed mining must be considered when preparing NEPA document for leasing decision]; <i>New Mexico ex rel. Richardson v. Bureau of Land Management</i>, 565 F.3d 683, 718-19 (10th Cir. 2009).</p> <p>BOR also failed to review the impacts from all of the "cumulative actions" related to the allocation decision(s). The BOR's allocation decision(s) along with the delivery and use of the CAP water also require a single EIS if they are "cumulative actions" under NEPA. See, e.g., <i>Great Basin Mine Watch</i>, 456 F.3d at 969, 971-72. "Cumulative actions" under NEPA are those that "when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." 40 C.F.R. § 1508.25(a)(2). The Ninth Circuit has held under "cumulative impacts" that a single EIS is required where individual actions are part of a broader plan, announced simultaneously, reasonably foreseeable, and located in the same region. <i>Earth Island Institute v. U.S. Forest Service</i>, 351 F.3d 1291, 1305 (9th Cir. 2003); <i>Blue Mountains Biodiversity Proj. v. Blackwood</i>, 161 F.3d 1208, 1214-15 (9th Cir.1998).</p> <p>In a 2016 decision involving a plan for operations of federal dam projects, the federal court noted that:</p> <p style="padding-left: 40px;">Under the principles articulated in Ninth Circuit case law, the Court finds that a single EIS is required for the [plan] actions as "cumulative actions." Many individual actions of this comprehensive plan do not and will not have any EA or EIS prepared, and others have only narrowly-focused NEPA documents that do not consider the regionwide impacts from the [plan]. These documents do not constitute a "hard look" at the environmental consequences and alternatives of the Action Agencies' federal action of adopting and implementing the [plan].</p> <p><i>National Wildlife Federation v. National Marine Fisheries Service</i>, 2016 WL 2353647, *62 (D. Or. 2016). The situation is similar here, as many of the activities/projects covered by the BOR's allocation decision and DEA "do not and will not have any EA or EIS prepared, and others have only narrowly-focused NEPA documents that do not consider the regionwide impacts" from the CAP allocations.</p> <p>The DEA fails to analyze the baseline conditions of the affected environment, including both the resources associated with the water delivery facilities themselves, as well as the resources affected by the projects/activities that may receive the CAP Allocations.</p> <p>The DEA barely discusses, in nothing more than a cursory manner, the "affected environment"</p>	<p>Comment Response 4: As noted in Comment Response 2, the EA has identified the baseline conditions and evaluated impacts associated with the Proposed Action to the degree the Proposed Action is known or reasonably foreseeable, and not speculative or totally unknown. Where potential future impacts would occur from a Proposed Recipient's construction of infrastructure to take and use its NIA allocation, but no other details are known about the associated location of, or amount of ground disturbance anticipated by, this infrastructure, environmental clearances cannot be evaluated until those details are known. Each CAP water service subcontract includes a clause that states, in part, "notwithstanding any other provision of this subcontract, Project Water shall not be delivered to the Subcontractor unless or until the Subcontractor has obtained final environmental compliance from the United States..." This is to ensure that site-specific environmental compliance would be completed prior to delivery of any of the reallocated water. Compliance with NHPA and ESA, as appropriate, would be completed at that time.</p>

Comment	Save the Scenic Ritas	Response
	<p>(i.e., the baseline conditions of the resources associated with the water delivery facilities themselves, as well as the resources affected by the projects/activities that may receive the CAP Allocations). This includes, at a minimum, the baseline conditions for surface and groundwater water quality and quantity, wildlife, recreation, cultural/historical/religious, air quality, land use, socioeconomic, and other resources potentially affected by the delivery and use of the CAP water.</p> <p>The BOR is required to "describe the environment of the areas to be affected or created by the alternatives under consideration." 40 C.F.R. § 1502.15. The establishment of the baseline conditions of the affected environment is a fundamental requirement of the NEPA process:</p> <p>"NEPA clearly requires that consideration of environmental impacts of proposed projects take place before [a final decision] is made." <u>LaFlamme v. FERC</u>, 842 F.2d 1063, 1071 (9th Cir.1988) (emphasis in original). Once a project begins, the "pre-project environment" becomes a thing of the past, thereby making evaluation of the project's effect on pre-project resources impossible. <u>Id.</u> Without establishing the baseline conditions which exist in the vicinity ... before [the project] begins, there is simply no way to determine what effect the proposed [project] will have on the environment and, consequently, no way to comply with NEPA.</p> <p><u>Half Moon Bay Fisherman's Mark't Ass'n v. Carducci</u>, 857 F.2d 505, 510 (9th Cir. 1988). "In analyzing the affected environment, NEPA requires the agency to set forth the baseline conditions." <u>Western Watersheds Project v. BLM</u>, 552 F.Supp.2d 1113, 1126 (D. Nev. 2008).</p> <p>"The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process." Council of Environmental Quality, <i>Considering Cumulative Effects under the National Environmental Policy Act</i> (May 11, 1999). "[O]nce a project begins, the pre-project environment becomes a thing of the past and evaluation of the project's effect becomes simply impossible." <u>Northern Plains v. Surf. Transp. Bd.</u>, 668 F.3d 1067, 1083 (9th Cir. 2011). "[W]ithout [baseline] data, an agency cannot carefully consider information about significant environment impacts. Thus, the agency fail[s] to consider an important aspect of the problem, resulting in an arbitrary and capricious decision." <u>Id.</u> at 1085.</p> <p>Such baseline information and analysis must be part of the EA and be subject to public review and comment under NEPA. The lack of an adequate baseline analysis fatally flaws an EA. See <u>Idaho Conservation League v. U.S. Forest Service</u>, 2016 WL 3814021, *10 (D. Idaho 2016)(EA and FONSI violated NEPA because: "The Forest Service cannot know the impact the Project will have, let alone conclude whether or not its impact is significant, without having accurate baseline data for [plant species] in the Project Area."). "Ninth Circuit cases acknowledge the importance of obtaining baseline condition information before assessing the environmental impacts of a proposed project." <u>Gifford Pinchot Task Force v. Perez</u>, 2014 WL 3019165, *28 (D. Or. 2014)(EA for mineral exploration project failed to obtain and analyze baseline water quality data in violation of NEPA).</p> <p>The Ninth Circuit recently reiterated this fundamental NEPA requirement, invalidating an EIS for failure to analyze baseline conditions for a wildlife species potentially impacted by the</p>	

Comment	Save the Scenic Ritas	Response
5	<p>project under review. <i>Oregon Natural Desert Association v. Jewell</i>, --- F.3d ---, 2016 WL 3033674, *5-6 (9th Cir. 2016) <i>relying upon Northern Plains</i>, and <i>Half Moon Bay</i>.</p> <p>Here, at a minimum, before considering or approving the Allocations, BOR must first obtain this required information and subject the information and analysis to public review and comment in a revised environmental review.</p> <p>BOR must fully comply with the Endangered Species Act</p> <p>In addition to failing to review fully all of the direct, indirect, and cumulative impacts from the water delivery facilities themselves and the projects/activities discussed above in violation of NEPA, BOR has failed to comply with the ESA. The DEA does not mention that the required consultation under the ESA for all listed species (see Table 5, DEA at 30-32) has occurred, nor that the substantive protective requirements of the ESA (e.g., no jeopardy to species or adverse modification of critical habitat) have been met.</p> <p>The DEA admits that these requirements will be deferred until the future, despite BOR's proposal to approve the Allocations and deliveries now.</p> <p>The ESA provides protection for plants and animals that are currently in danger of extinction (endangered) and those that may become extinct in the foreseeable future (threatened). Section 7 of this law requires federal agencies to ensure that all federally associated activities do not have adverse impacts on the continued existence of threatened or endangered species or designated areas (critical habitat) that are important in conserving those species. Because construction of new water diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA, these future developments would be analyzed under a separate NEPA analysis to address effects on listed species as part of subcontract agreements with Reclamation.</p> <p>DEA at 60. As noted above for NEPA, the fact that future analysis may occur (or may not depending on whether a federal agency is involved) does not exempt BOR from its ESA duties in deciding whether to approve or reject ADWR's recommendations.</p> <p>An agency has a duty to consult under Section 7 of the ESA for any discretionary agency action that "may affect" a listed species or designated critical habitat. <i>Turtle Island</i>, 340 F.3d at 974 (citing 50 C.F.R. § 402.14(a)). An agency may avoid the consultation requirement only if it determines that its action will have "no effect" on a listed species or critical habitat. <i>Sw. Ctr. for Biological Diversity v. U.S. Forest Serv.</i>, 100 F.3d 1443, 1447-48 (9th Cir.1996). Once an agency has determined that its action "may affect" a listed species or critical habitat, the agency must consult, either formally or informally, with the appropriate expert wildlife agency. If the wildlife agency determines during informal consultation that the proposed action is "not likely to adversely affect any listed species or critical habitat," formal consultation is not required and the process ends. 50 C.F.R. § 402.14(h)(1). Thus, actions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are "not likely" to do so—require at least some consultation under the ESA.</p> <p>11</p>	<p>Comment Response 5: Where known developments would occur, the EA has been updated with additional baseline information based on information provided by Proposed Recipients and publicly-available sources. The known developments include two new residential subdivisions—the Apache Junction Water Utilities Community Facilities District-Portalis subdivision in the Phoenix AMA and the Metropolitan Domestic Water Improvement District-Diablo Village in the Tucson AMA. Future development projects that are currently unknown or where no detail is currently available would be subject to federal, state, and/or local regulations.</p>

Comment	Save the Scenic Ritas	Response
	<p>We have previously explained that "may affect" is a "relatively low" threshold for triggering consultation. <i>Cal. ex rel. Lockyer v. U.S. Dep't of Agric.</i>, 575 F.3d 999, 1018 (9th Cir.2009). "Any possible effect, whether beneficial, benign, adverse or of an undetermined character," triggers the requirement. <i>Id.</i> at 1018-19 (quoting 51 Fed.Reg. 19,926, 19,949 (June 3, 1986)) (emphasis in <i>Lockyer</i>). The Secretaries of Commerce and the Interior have explained that "[t]he threshold for formal consultation must be set sufficiently low to allow Federal agencies to satisfy their duty to 'insure' " that their actions do not jeopardize listed species or adversely modify critical habitat. 51 Fed.Reg. at 19,949.</p> <p><i>Karuk Tribe v. Forest Service</i>, 681 F.3d 1006, 1027 (9th Cir. 2012)(En Banc). BOR water delivery decisions are subject to the ESA. See <i>NRDC v Rodgers</i>, 381 F.Supp.2d 1212 (ED CA 2005).</p> <p>Thus, the ESA, together with NEPA, requires that BOR first fully analyze the direct, indirect, and cumulative impacts to all the listed species in Table 5. Then, for any species that "may be" affected, consultation with the FWS is required. After consultation, if jeopardy to any listed species may occur, or if critical habitat of any listed species may be adversely modified, BOR cannot authorize any actions. None of these requirements have been met.</p> <p>The DEA admits that there will be impacts to listed species from the No-Action Alternative:</p> <p>Many of the Proposed Recipients would continue to pump groundwater for their water needs. Groundwater pumping may affect biological resources by depleting aquifers, resulting in altered streamflow and altered water availability to groundwater-related vegetation along streams and creeks (Fonseca 2008). Many threatened, endangered, and sensitive species rely on wetland and riparian vegetation for food, shelter, and reproduction. Increases in the depth to groundwater could eventually result in a shift to upland vegetation and loss of riparian and wetland habitat (Fonseca 2008).</p> <p>DEA at 33. The same is true for the Proposed Action:</p> <p>Under Section 7 of the ESA, any proposed action with a federal nexus that may result in an effect (positive or negative) on federally listed or proposed species would require consultation. Potential indirect disturbance or habitat effects for listed species from the installation of new water facilities (e.g., treatment plants or pipelines) are impossible to quantify in this analysis since the specific locations have not been identified. Construction of new diversions or development of land for residential, commercial, industrial, or agricultural purposes would be subject to applicable federal and tribal laws and regulations, including the ESA. Therefore, future developments by the Proposed Recipients would be analyzed under a separate NEPA analysis to ensure effects on listed species are addressed. Without conceptual plans and/or locations of potential developments, determining effects on listed species from new developments is not currently possible. Table 5 in Section 3.4.2.2 provides the potential listed species and designated critical habitats present within each AMA.</p>	



Comment	Save the Scenic Ritas	Response
6	<p>DEA at 34. As noted herein, however, BOR's decision to avoid any specific analysis of impacts to listed species/habitat is based on the illegal positions that these projects/activities are speculative and "impossible" to review and that these impacts can be reviewed in the future long after the CAP water allocation decision is made.</p> <p>This is true not only for the water delivery facilities themselves, and the project/activities receiving the CAP water, but also the longer-term operation and maintenance of the CAP facilities. <u>NRDC v Rodgers</u>, 381 F.Supp.2d 1212, 1235-37 (ED CA 2005).</p> <p>BOR failed to comply with the National Historic Preservation Act</p> <p>It is a violation of the NHPA and NEPA to complete the public review process before the consultation, and a complete review of cultural/historical resources has been completed. This includes a full review of all properties eligible for listing on the National Register of Historic Places, including eligible Native American sites. <u>Te-Moak Tribe of Western Shoshone v. U.S. Department of the Interior</u>, 608 F.3d 592, 609 (9th Cir. 2010).</p> <p>The DEA discusses BOR's NHPA responsibilities:</p> <p>The NHPA protects buildings, sites, districts, structures, and objects that have significant scientific, historic, or cultural value. The act established affirmative responsibilities of federal agencies to preserve historic and prehistoric resources. Effects on properties that are listed on, or that are eligible for listing on, the National Register must be taken into account in planning and operations. Any property that may qualify for listing on the National Register must not be inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate.</p> <p>Section 306108 (formerly Section 106) of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. The Advisory Council on Historic Preservation (ACHP) is then afforded a reasonable opportunity to comment. The historic preservation review process is outlined in regulations issued by the ACHP. Revised regulations, known as "Protection of Historic Properties" (36 CFR Part 800), were updated on August 5, 2004.</p> <p>In addition to considering the effects of their undertakings on historic properties, Section 306102 (formerly Section 110) of the NHPA requires federal agencies to establish a historic preservation program to identify and protect historic properties under their management or control. The plans must include a process for evaluating historic properties for listing on the National Register.</p> <p>DEA at 61. No mention is made of what eligible properties may be affected by the water deliveries themselves, as well as may be affected by the projects/activities receiving the CAP water – in violation of NEPA and the NHPA.</p> <p>At most, the DEA simply lists the various Tribes that were sent the DEA. DEA at 61. That certainly does not satisfy the review and consultation requirements of the NEPA and the NHPA.</p> <p>13</p>	<p>Comment Response 6: Where known developments would occur, the EA has been updated to include a Class I literature review to identify previous project and known cultural resources within the project areas. The known developments include two new residential subdivisions—the Apache Junction Water Utilities Community Facilities District-Portalis subdivision in the Phoenix AMA and the Metropolitan Domestic Water Improvement District-Diablo Village in the Tucson AMA. New ground disturbance related to the Diablo Village and Portalis developments would need to comply with all federal, state, and local laws as applicable. Potential effects on cultural resources in the area of potential effect would need to be assessed and consulted on with stakeholders, and any adverse effects would need to be mitigated prior to construction.</p>


Comment	Save the Scenic Ritas	Response
7	<p>The DEA failed to consider all reasonable alternatives</p> <p>The DEA only considered two alternatives, the no-action and proposed action. "For the purposes of this NEPA analysis, only two alternatives were considered – the Proposed Action, approval of the ADWR recommendation, and the No Action, or rejection of the ADWR recommendation." DEA at 13.</p> <p>In so truncating its alternatives review, the BOR improperly failed to consider reasonable alternative(s) that involve allocating CAP water in different amounts to the recipient activities/projects, or to alternative(s) that grant the full amount recommended by ADWR to some recipients, but not others. Each of these alternatives would result in different delivery and/or use of water, and thus different related impacts to the region and in site-specific locales.</p> <p>NEPA requires the agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(E); 40 CFR § 1508.9(b). It must "rigorously explore and objectively evaluate all reasonable alternatives" to the proposed action. <i>City of Tenakee Springs v. Clough</i>, 915 F.2d 1308, 1310 (9th Cir. 1990). The alternatives analysis is considered the heart of a NEPA analysis. 40 C.F.R. § 1502.14. The alternatives analysis should present the environmental impacts in comparative form, thus sharply defining important issues and providing the public and the decisionmaker with a clear basis for choice. <i>Id.</i> The lead agency must "rigorously explore and objectively evaluate all reasonable alternatives" including alternatives that are "not within the [lead agency's] jurisdiction." <i>Id.</i></p> <p>Even if an EA leads to a FONSI, it is essential for the agency to consider all reasonable alternatives to the proposed action. One of the Ninth Circuit's leading EA/alternatives decisions states:</p> <p>NEPA requires that federal agencies consider alternatives to recommended actions whenever those actions "involve[] unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E) (1982). The goal of the statute is to ensure "that federal agencies infuse in project planning a thorough consideration of environmental values." The consideration of alternatives requirement furthers that goal by guaranteeing that agency decisionmakers "[have] before [them] and take [] into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit balance." NEPA's requirement that alternatives be studied, developed, and described both guides the substance of environmental decisionmaking and provides evidence that the mandated decisionmaking process has actually taken place. Informed and meaningful consideration of alternatives--including the no action alternative-- is thus an integral part of the statutory scheme.</p> <p>Moreover, consideration of alternatives is critical to the goals of NEPA even where a proposed action does not trigger the EIS process. This is reflected in the structure of the statute: while an EIS must also include alternatives to the proposed action, 42 U.S.C. § 4332(2)(C)(iii) (1982), the consideration of alternatives requirement is contained in a separate subsection of the statute and therefore constitutes an independent requirement. See <i>id.</i> § 4332(2)(E). The language and effect of the two subsections also</p> <p style="text-align: right;">14</p>	<p>Comment Response 7: Thank you for your comment. Reclamation must either approve ADWR's recommendation in total, or disapprove it in total; we are unable to change or revise the recommendation prior to our decision.</p>


Comment	Save the Scenic Ritas	Response
	<p>indicate that the consideration of alternatives requirement is of wider scope than the EIS requirement. The former applies whenever an action involves conflicts, while the latter does not come into play unless the action will have significant environmental effects. An EIS is required where there has been an irretrievable commitment of resources; but unresolved conflicts as to the proper use of available resources may exist well before that point. Thus the consideration of alternatives requirement is both independent of, and broader than, the EIS requirement.</p> <p><u>Boh Marshall Alliance v. Hodel</u>, 852 F.2d 1223, 1228-1229 (9th Cir. 1988) (citations omitted). "While a federal agency need not consider all possible alternatives for a given action in preparing an EA, it must consider a range of alternatives that covers the full spectrum of possibilities." <u>Ayers v. Espy</u>, 873 F.Supp. 455, 473 (D. Colo. 1994).</p> <p>In refusing to consider any other alternatives, the BOR apparently believes that because in the AWSA Congress did not specifically order it to consider other alternatives, this means that its duties under NEPA were somehow eliminated. That is wrong. First, as noted above, the AWSA specifically required full compliance with NEPA. Secondly, the lack of congressional direction or authorization does not excuse the failure to consider all reasonable alternatives.</p> <p>Under NEPA, action alternatives in a NEPA analysis need not be under the jurisdiction or control of the lead agency, and thus a comprehensive NEPA analysis needs to include such a reasonable alternative. <i>See</i> 40 C.F.R. § 1502.14(c) (an EIS "shall" "[i]nclude reasonable alternatives not within the jurisdiction of the lead agency"). The BOR's NEPA Handbook requires that its NEPA review shall: "Include reasonable alternatives not within the jurisdiction of the lead agency." BOR NEPA Handbook at 8-7.</p> <p>The Council on Environmental Quality, which promulgates the NEPA regulations that are binding on the federal agencies, specifically requires the agencies to fully consider alternatives "beyond what Congress authorized":</p> <p>2b. Q. Must the EIS analyze alternatives outside the jurisdiction or capability of the agency or beyond what Congress has authorized?</p> <p>A. An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies. Section 1500.1(a).</p> <p><u>CEQ, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations</u>, 46 FR 18026-011981, at 18027, WL 149008 (March 23, 1981). <i>See also</i> <u>National Wildlife Federation v. National Marine Fisheries Service</u>, 2016 WL 2353647, *60-61 (D. Or. 2016).</p> <p>Thus, here, the revised DEA (or more appropriately the Draft EIS) must consider, at a minimum, the reasonable alternatives that involve allocating CAP water in different amounts</p>	

Comment	Save the Scenic Ritas	Response
8	<p>to the recipient activities/projects, and to alternative(s) that grant the full amount recommended by ADWR to some recipients, but not others.</p> <p>Relatedly, because the BOR believed it had no authority or responsibility to review these alternatives, the DEA's "purpose and need" discussion is improperly limited and unnecessarily limits the scope of the project and project review, and alternatives review. "Obviously, an applicant cannot define a project in order to preclude the existence of any alternative sites and thus make what is practicable appear impracticable." <u>Sylvester v. U.S. Army Corps of Engineers</u>, 882 F.2d 407, 409 (9th Cir.1989). "No decision is more important than that delimiting what these 'reasonable alternatives' are ... One obvious way for an agency to slip past the structures of NEPA is to contrive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence) ... If the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role." <u>Simmons v. United States Army Corps of Engineers</u>, 120 F.3d 664, 660 (7th Cir. 1997).</p> <p>Failure to review fully mitigation and mitigation effectiveness</p> <p>The DEA contains little to no discussion of mitigation measures to reduce the impacts from the delivery and use of the CAP water as proposed by BOR. This is despite the fact that even the limited review of impacts in the DEA acknowledges the potential for impacts to various resources.</p> <p>Under NEPA, the agency must have an adequate mitigation plan to minimize or eliminate all potential project impacts. NEPA requires the agency to: (1) "include appropriate mitigation measures not already included in the proposed action or alternatives," 40 CFR § 1502.14(f); and (2) "include discussions of: ... Means to mitigate adverse environmental impacts (if not already covered under 1502.14(f))." 40 CFR § 1502.16(h). NEPA regulations define "mitigation" as a way to avoid, minimize, rectify, or compensate for the impact of a potentially harmful action. 40 C.F.R. §§1508.20(a)-(e). "[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." <u>Robertson v. Methow Valley Citizens Council</u>, 490 U.S. 332, 353 (1989). NEPA requires that the agency discuss mitigation measures, with "sufficient detail to ensure that environmental consequences have been fairly evaluated." <u>Methow Valley</u>, 490 U.S. at 352, 109 S.Ct. 1835.</p> <p>An essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective. Compare <u>Neighbors of Cuddy Mountain v. U.S. Forest Service</u>, 137 F.3d 1372, 1381 (9th Cir.1998) (disapproving an EIS that lacked such an assessment) with <u>Okanogan Highlands Alliance v. Williams</u>, 236 F.3d 468, 477 (9th Cir.2000) (upholding an EIS where "[e]ach mitigating process was evaluated separately and given an effectiveness rating"). The Supreme Court has required a mitigation discussion precisely for the purpose of evaluating whether anticipated environmental impacts can be avoided. <u>Methow Valley</u>, 490 U.S. at 351-52, 109 S.Ct. 1835(citing 42 U.S.C. § 4332(C)(ii)). A mitigation discussion without at least some evaluation of effectiveness is useless in making that determination.</p> <p>16</p>	<p>Comment Response 8: See Comment Response 2.</p>

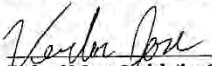
Comment	Save the Scenic Ritas	Response
9	<p><u>South Fork Band Council v. Dept. of Interior</u>, 588 F.3d 718, 727 (9th Cir. 2009) (rejecting EIS for mining project for failure to conduct adequate review of mitigation and mitigation effectiveness in EIS). An EA violates NEPA if it “fails to address the effectiveness of the mitigation measures.” <u>Gifford Pinchot Task Force v. Perez</u>, 2014 WL 3019165, *39 (D. Or. 2014). “The comments submitted by [plaintiff] also call into question the efficacy of the mitigation measures and rely on several scientific studies. In the face of such concerns, it is difficult for this Court to see how the [agency’s] reliance on mitigation is supported by substantial evidence in the record.” <u>Wyoming Outdoor Council v. U.S. Army Corps of Eng’rs</u>, 351 F. Supp. 2d 1232, 1251 n. 8 (D. Wyo. 2005). See also <u>Dine Citizens v. Klein</u>, 747 F.Supp.2d 1234, 1258-59 (D. Colo. 2010) (finding “lack of detail as the nature of the mitigation measures” precluded “meaningful judicial review”).</p> <p>The proposed FONSI is not supported by the required analysis and thus cannot be issued.</p> <p>BOR’s deficient EA renders its FONSI inadequate. As the federal courts have held: “[I]f the EA is deficient under NEPA in one of the ways Plaintiff has previously argued, then the [agency’s] DN/FONSI is necessarily arbitrary and capricious because it relied on the 2012 EA.” <u>Gifford Pinchot</u>, 2014 WL 3019165, *40. This follows a line of well-established Ninth Circuit precedent. See <u>Native Ecosystems Council v. Tidwell</u>, 599 F.3d 926, 937 (9th Cir. 2010) (USFS violated NEPA in issuing FONSI based on inadequate analysis); <u>Ctr. for Biological Diversity v. NHTSA</u>, 508 F.3d at 1223-24 (When an EA fails to comply with NEPA requirements, it “does] not constitute a ‘hard look’ at the environmental consequences of the action as required by NEPA. Thus, the FONSI is arbitrary and capricious.”).</p> <p>Thus, BOR’s decision not to prepare an EIS was made without the critical information regarding connected actions, indirect and cumulative impacts, cumulative actions, baseline conditions, reasonable alternatives, and other requirements detailed above. The FONSI is consequently invalid.</p>	<p>Comment Response 9: A Finding of No Significant Impact has been neither proposed nor prepared at this time.</p>

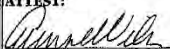
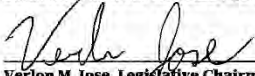
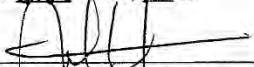
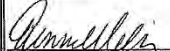
Comment	Save the Scenic Ritas	Response
	<p>Conclusion</p> <p>Thank you in advance for your consideration of these comments. We look forward to further participation in this important NEPA process.</p> <p>Sincerely,</p> <div></div> <p>Gayle Hartmann, President Save the Scenic Santa Ritas 8987 E. Tanque Verde #309-157 Tucson, Arizona 85749 gaylehartmann4@gmail.com</p> <div></div> <p>Randy Serraglio Center for Biological Diversity PO Box 710 Tucson, AZ 85702 rserraglio@biologicaldiversity.org</p> <p>18</p>	

Comment	Tohono O'odham Nation	Response
<p>1</p> <p>2</p>	<div>  </div> <div> <p>Tohono O'odham Nation Water Resources Department PO Box 10 Sells, Arizona 85634 Phone: (520) 383-2362 Fax: (520) 383-5563</p> </div> <p>July 22, 2016</p> <p><i>Via U.S. Mail, Facsimile and Electronic Mail</i></p> <p>Leslie Meyers, Area Manager Bureau of Reclamation Phoenix Area Office 6150 W. Thunderbird Rd. Glendale, AZ 85306 Attention: PXAO-1500 E-Mail: cap_NIA@erowaterresources.com Facsimile: 623-773-6486</p> <p>Dear Area Manager Meyers,</p> <p>The Water Resources Department of the Tohono O'odham Nation ("Department") submits the following comments in Response to the Draft Environmental Assessment for the Proposed Arizona Department of Water Resources ("ADWR") Recommendation for the Reallocation of Non-Indian Agricultural Priority Central Arizona Project ("CAP") Water in Accordance with the Arizona Water Settlements Act of 2004 ("EA").</p> <p>The Tohono O'odham Nation ("Nation") has opposed the Rosemont Copper Project since its inception, see attached Resolution No. 09-569. The Nation has also expressed its opposition to the Resolution Copper Project, see attached Resolution No. 11-551. As such, the Department is troubled with the lack of tribal consultation with respect to this EA. Consultation with tribes is required pursuant to numerous Federal-Tribal Consultation Statutes, Regulations and Orders, including but not limited to EO 13175, EO 12898, 40 CFR Part 1500 and 36 CFR Part 800. The Department requests an extension of time to submit comments to allow the Bureau of Reclamation to properly consult with the Nation and other interested tribes. Pending that consultation, the Department provides the following brief comments.</p> <p>The Department is tasked with managing the water resources of the Tohono O'odham Nation. As such, the Department is quite concerned over the allocation of 1,124-acre feet of CAP water to the Rosemont Copper Company ("Rosemont"). Specifically, the Department is concerned with the fact that Rosemont intends to recover their water credits from the same sub-basin in which the water was stored. The concern is that this recovery is contingent upon the Community Water</p>	<p>Comment Response 1: Reclamation conducted a government-to-government consultation meeting with the Tohono O'odham Nation Tribal Council on February 27, 2017, and remains in communication regarding this project.</p> <p>Comment Response 2: In the case of Rosemont Copper Mine, the U.S. Forest Service's (USFS) EIS assumed all water needed for mining operations would be supplied by Rosemont Copper Mine's recovery wells near Sahuarita – a total of 99,600 acre-feet (AF) over the life of the project, with permitted water use of up to 120,000 AF (6,000 AF annually) under its Mineral Extraction and Metallurgical Processing Groundwater Withdrawal Permit No. 59-215979.0000, issued by Arizona Department of Water Resources (ADWR) on January 18, 2008. It based its evaluation on the assumption there would be no recharge of Central Arizona Project (CAP) water, either from a Community Water Company of Green Valley recharge facility, or with recharged Non-Indian Agricultural (NIA) Priority CAP reallocated water [Rosemont Copper Mine Final Environmental Impact Statement (EIS), p. 320; https://www.rosemonteis.us/files/final-eis/rosemont-feis-vol-2.pdf].</p> <p>The EIS investigated the potential effects of Rosemont Copper Mine's pumping in the Upper Santa Cruz Subbasin to supply the entire mine operations' water supply needs. The EIS concluded after 20 years of pumping, the 10-foot drawdown contour would just touch the boundary of the Tohono O'odham Nation but it did not appear that pumping would violate the statutory requirements of the Southern Arizona Water Rights Settlement Act and associated legislation (see Rosemont Copper Mine Final EIS, p. 339).</p> <p>The USFS issued a Record of Decision for the Rosemont Copper Mine on June 7, 2017. Its decision was made without any consideration of whether Rosemont Copper Mine would receive an allocation of NIA Priority CAP reallocated water pursuant to this EA. Any recharge that occurs within the Upper Santa Cruz Subbasin because of the NIA reallocation would serve to reduce the adverse impacts from Rosemont Copper Mine's pumping of its recovery wells. If Rosemont Copper Mine ultimately does not operate, the recharge of the NIA Priority CAP reallocated water would continue to benefit the subbasin within which it is stored.</p>

Comment	Tohono O'odham Nation	Response
2 cont.	<p>Company pipeline and construction of a new recharge facility in Green Valley. Draft EA, Table 6 at 39.</p> <p>This pipeline and storage facility may never be built. If they are not built the whole idea of Rosemont reclaiming the storage credits in the sub-basin in which the water is stored is an impossibility. The EA in no way addresses the ramifications of Rosemont reclaiming their water credits in a sub-basin other than where the water was initially stored. The Bureau of Reclamation should address this issue in the EA.</p> <p>The EA dismisses further scrutiny of the allocation to Rosemont as unnecessary because the mining activity is not connected to the CAP water allocation. The mine is currently in the planning stages and may never be built. If it is not built, what will Rosemont do with their allocation? Will it be stored? Will it be turned back? Either of these choices will have environmental impacts. These impacts, coupled with the impacts of Rosemont reclaiming water credits from a different sub-basin in which the water was stored, help show that the Rosemont Mine is connected to the CAP water allocation and necessitates further review. The Department appreciates the opportunity to submit these brief comments.</p> <p>Sincerely,</p> <p> Selso Villegas, Executive Director</p>	


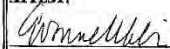
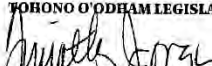
Comment	Tohono O'odham Nation	Response
	<p style="text-align: center;">RESOLUTION OF THE TOHONO O'ODHAM LEGISLATIVE COUNCIL (Opposing the Proposed Rosemont Copper Project)</p> <p style="text-align: right;">RESOLUTION NO. 09-569</p> <p>1 WHEREAS, it is the policy of the Tohono O'odham Nation to promote "enjoyable harmony between the 2 members of the Nation and their environment," and to preserve "its historic and 3 cultural artifacts and archeological sites" as well as "preserve and cultivate native 4 arts, crafts and traditions" (Constitution, Article VI, Section 1(c)(8) and Article XVIII, 5 Section 1); and</p> <p>6 WHEREAS, it is also the Nation's policy "to seek the return to the Nation of lands and natural 7 resources, including minerals and water rights, within or adjacent to the Nation, or 8 which originally were a part of the historic Papagueria." (Constitution, Article XVI, 9 Section 9); and</p> <p>10 WHEREAS, Augusta Resource Corporation has proposed an open pit copper mining project, called 11 Rosemont Copper Project, on 995 acres of private land and 3,670 acres of National 12 Forest Service land about 30 miles southeast of Tucson, Arizona near the Santa Rita 13 Mountains (Federal Register/Vol. 73, No. 50/Thursday, March 13, 2008/Notices, 13527); 14 and</p> <p>15 WHEREAS, Augusta Resource Corporation will operate the open pit copper mine on its private, 16 patented mining claims, however, Augusta proposes to use unpatented mining claims 17 located on public, National Forest Service land to dump the overburden from its 18 mining operations; and</p> <p>19 WHEREAS, the United States Forest Service is currently preparing a draft Environmental Impact 20 Statement on the potential consequences and effects of the open pit mine on National 21 Forest Service's lands; and</p> <p>22 WHEREAS, the San Xavier District, United States Congress Representatives Grijalva and Giffords, 23 the Tucson City Council, the Pima County Board of Supervisors, and various 24 community groups such as Save the Scenic Santa Ritas oppose the proposed Rosemont 25 Copper Project due to its location and potentially devastating environmental impacts; 26 and</p> <p>27 WHEREAS, the proposed location of the Rosemont Copper Project is on the Nation's ancestral 28 lands and would significantly impact, destroy, or alter cultural and archeological sites 29 containing numerous Archaic, Hohokam, and O'odham funerary objects, sacred 30 objects, and other archeological and cultural items, as well as permanently alter the 31 Cultural and Natural Landscapes of the area; and</p> <p>32 WHEREAS, the Archeological Survey for the Proposed Rosemont Copper Mine, Pima County, 33 Arizona, March 2009, recorded 96 cultural resource sites, 70 of which were 34 recommended eligible for listing in the National Register of Historic Places; and</p>	

Comment	Tohono O'odham Nation	Response
	<p> RESOLUTION NO. 99-569 (Opposing the Proposed Rosemont Copper Project) Page 2 of 3 </p> <p> 1 WHEREAS, the Nation considers the entire Ce:wi Duag (Santa Rita Mountains) eligible for listing 2 as a Traditional Cultural Place/Property under the National Historic Preservation Act, 3 16 U.S.C. § 470a(d)(6)(A), as the area was traditionally used by Tohono O'odham people 4 for hunting and gathering; and 5 WHEREAS, biological studies have not yet been completed for the project, but project consultants 6 have indicated that the following threatened and endangered species have been found 7 within the project area: lesser long-nosed bat, southwestern willow flycatcher, and 8 Chiricahua leopard frog; and 9 WHEREAS, threatened and endangered species are likely to be negatively impacted if the 10 Rosemont Copper Project is approved as habitat and forage destruction will occur; 11 and 12 WHEREAS, an unique species of talussnail, the Rosemont talussnail, is likely to be severely 13 impacted, if not completely eliminated if this project is approved; and 14 WHEREAS, the Nation is familiar with the environmental impacts of open pit copper mining, its 15 drain on natural resources and the effect on water quality, contamination of the 16 underground aquifer, and introduction of dissolved solids, sulfates, and metals into 17 the underlying groundwater; and 18 WHEREAS, if approved, the Rosemont Copper Project will be one of the largest copper mines in 19 the United States; and 20 WHEREAS, the proposed Rosemont Copper Project would adversely impact ancestral lands and 21 destroy natural resources and negatively affect the surrounding environment. 22 NOW, THEREFORE, BE IT RESOLVED by the Tohono O'odham Legislative Council that it opposes 23 Augusta Resource Corporation's proposed Rosemont Copper Project. 24 The foregoing Resolution was passed by the Tohono O'odham Legislative Council on the 22ND. Day 25 of OCTOBER, 2009 at a meeting at which a quorum was present with a vote of 2,595.50 FOR; -0- 26 AGAINST; -0- NOT VOTING; and 031 ABSENT, pursuant to the powers vested in the Council by Section 27 1 of Article VI of the Constitution of the Tohono O'odham Nation, adopted by the Tohono O'odham 28 Nation on January 18, 1986; and approved by the Acting Deputy Assistant Secretary - Indian Affairs 29 (Operations) on March 6, 1986, pursuant to Section 16 of the Act of June 18, 1934 (48 Stat. 984). 30 31 32 TOHONO O'ODHAM LEGISLATIVE COUNCIL 33 34  35 Verlon M. Jose, Legislative Chairman 36 37 22 day of October, 2009 38 39 40 </p>	

Comment	Tohono O'odham Nation	Response
	<p> RESOLUTION NO. 99-569 (Opposing the Proposed Rosemont Copper Project) Page 3 of 3 </p> <p> 1 ATTEST: 2  3 <u>Evonne Wilson, Legislative Secretary</u> 4 5 <u>20</u> day of <u>October</u>, 2009. 6 7 Said Resolution was submitted for approval to the office of the Chairman of the Tohono O'odham 8 Nation on the <u>22</u> day of <u>October</u>, 2009 at <u>6:19</u> o'clock, <u>P</u>.M., 9 pursuant to the provisions of Section 5 of Article VII of the Constitution and will become effective 10 upon his approval or upon his failure to either approve or disapprove it within 48 hours of 11 submittal. 12 13 TOHONO O'ODHAM LEGISLATIVE COUNCIL 14  15 <u>Verlon M. Jose, Legislative Chairman</u> 16 17 18 19 20 21 <input checked="" type="checkbox"/> APPROVED on the <u>22</u> day of <u>October</u>, 2009 22 23 <input type="checkbox"/> DISAPPROVED at <u>6:25</u> o'clock, <u>P</u>.M. 24 25  26 <u>NED NORRIS, JR., CHAIRMAN</u> 27 <u>TOHONO O'ODHAM NATION</u> 28 <u>VICE CHAIRMAN</u> 29 30 31 32 33 Returned to the Legislative Secretary on the <u>23</u> day of 34 <u>October</u>, 2009, at <u>11:31</u> o'clock, <u>A</u>.M. 35 36  37 <u>Evonne Wilson, Legislative Secretary</u> 38 39 40 41 42 43 44 45 46 47 48 </p>	

Comment	Tohono O'odham Nation						Response
	RESOLUTION NO. <u>09-569</u>						
	ACTION: OPPOSING THE PROPOSED ROSEMONT COPPER PROJECT						
	MOVED: COUNCILMAN TIMOTHY JOAQUIN		SECOND: COUNCILWOMAN OLIVIA VILLEGAS-LISTON				
	DATE: OCTOBER 22, 2009						
	DISTRICT	LEGISLATIVE REPRESENTATIVES	# OF VOTES	FOR	AGAINST	NOT VOTING	ABSENT
	SIF ODAK 198.7	1. W.AVALENE ROMERO (Nicholas Jose)	99.35	X			
		2. MARY LOPEZ ()	99.35	X			
	SELLS 449.6	1. KIMBERLY LISTO ()	224.80	X			
		2. EVELYN B. JUAN MANUEL ()	224.80	X			
	SCHUK TOAK 159.0	1. FRANCES B. CONDE (Fredrick Jose)	79.50	X			X
		2. LINDA PARLEY (Agnes Joaquin)	79.50	X			
	SAN XAVIER 204.7	1. FELICIA NUÑEZ ()	102.35	X			X
		2. OLIVIA VILLEGAS-LISTON (Eugene Enis)	102.35	X			
	SAN LUCY 187.1	1. LORRAINE EILER (Charlotte Cadavas)	93.55	X			
		2. GLORIA RAMIREZ ()	93.55	X			
	PISINEMO 184.5	1. CHESTER ANTONE (Tony Murrieta)	92.25	X			
		2. EDWARD MANUEL (Gerald Payuani)	92.25	X			
	HICKIWAN 174.5	1. MICHELLE ORTEGA ()	87.25	X			
		2. SANDRA ORTEGA ()	87.25	X			
	GU VO 206.3	1. GRACE MANUEL ()	103.15	X			X
		2. PAMELA ANGHILL (Angela Ortiz)	103.15	X			
	GU ACHI 230.1	1. TIMOTHY L. JOAQUIN ()	115.05	X			
		2. CYNTHIA E. MANUEL ()	115.05	X			
	CHUKUT KUK 277.0	1. ETHEL GARCIA (Absent) (Sara Mae Williams) (Present)	138.50	X			
		2. VERLON M. JOSE ()	138.50	X			
	BABOQIVARI 324.0	1. FRANCES MIGUEL (Roberto Harvey)	162.0	X			
		2. FRANCES G. ANTONE ()	162.0	X			
	TOTAL		2,595.50	2,595.50	-0-	-0-	[03]

Comment	Tohono O'odham Nation	Response
	<p style="text-align: center;">RESOLUTION OF THE TOHONO O'ODHAM LEGISLATIVE COUNCIL (Opposing H.R. 1904 and Other Proposals That Would Authorize the Mining and Desecration of Oak Flat and Other Sacred Lands)</p> <p style="text-align: center;">RESOLUTION NO. 11-551</p> <p>1 WHEREAS, the Constitution of the Tohono O'odham Nation vests the Tohono O'odham Legislative 2 Council with the power to consult with other Indian tribes, the United States Congress, 3 and with appropriate federal agencies regarding federal activities that affect the 4 Tohono O'odham Nation (Constitution, Article VI, Section 1(f) and 1(j)); and</p> <p>5 WHEREAS, the Tohono O'odham Nation recognizes that copper mining on traditional Native 6 lands has frequently caused irreversible environmental damage, destroyed 7 archeological sites, native habitat, plants, and animals, and severely contaminated 8 aquifers and surface water; and</p> <p>9 WHEREAS, the area of Oak Flat, Apache Leap, Devil's Canyon, and Queen Creek in Southeastern 10 Arizona (collectively, "Oak Flat area") is sacred to numerous Indian tribes in Arizona 11 and New Mexico and is now at risk from a proposal to establish and operate the largest 12 copper mine in North America; and</p> <p>13 WHEREAS, H.R. 1904, entitled "Southeast Arizona Land Exchange and Conservation Act of 2011," 14 would transfer over 2,400 acres of federal land within the Oak Flat area to Resolution 15 Copper, a foreign-owned mining corporation; and</p> <p>16 WHEREAS, H.R. 1904 also would require Congress to lift the decades-old ban against mining 17 within the 760 acres of the Oak Flat area, land which was expressly protected from 18 mining by President Eisenhower in 1955 and which possesses unique religious, 19 cultural, traditional, and archaeological significance to Indian tribes in the region; 20 and</p> <p>21 WHEREAS, the block cave mining method to be employed at the Resolution Copper mine will also 22 cause the collapse of the surface of the earth and thereby desecrate or destroy the 23 religious, cultural and traditional integrity of Oak Flat area for Indian tribes affiliated 24 with the area; and</p> <p>25 WHEREAS, the mining activity also will deplete and contaminate water resources from nearby 26 watersheds and aquifers, causing long-term and, in some cases, permanent religious, 27 cultural and environmental damage; and</p> <p>28 WHEREAS, the National Congress of American Indians, the Inter Tribal Council of Arizona, the 29 United South and Eastern Tribes, the San Carlos Apache Tribe, and other Arizona and 30 New Mexico tribes have opposed this land exchange due to the harm to religious,</p>	

Comment	Tohono O'odham Nation	Response
	<p>RESOLUTION NO. 11-551 (Opposing H.R. 1904 and Other Proposals That Would Authorize the Mining and Desecration of Oak Flat and Other Sacred Lands) Page 2 of 3</p> <p>1 cultural, archeological, and historic resources, as well as the environmental 2 consequences from the proposed mining activities.</p> <p>3 NOW, THEREFORE, BE IT RESOLVED by the Tohono O'odham Legislative Council that it strongly 4 opposes H.R. 1904 and any other legislation or proposal that would reduce protections 5 for the Oak Flat area and other lands within the proposed location of the Resolution 6 Copper mine operations, or that would otherwise allow the development of the 7 Resolution Copper mine.</p> <p>8 The foregoing Resolution was passed by the Tohono O'odham Legislative Council on the 18th Day 9 of NOVEMBER, 2011 at a meeting at which a quorum was present with a vote of 2,780,60 FOR; -0- 10 AGAINST; -0- NOT VOTING; and [03] ABSENT, pursuant to the powers vested in the Council by 11 Section 1 (f) and 1 (j) of Article VI of the Constitution of the Tohono O'odham Nation, adopted by the 12 Tohono O'odham Nation on January 18, 1986; and approved by the Acting Deputy Assistant 13 Secretary - Indian Affairs (Operations) on March 6, 1986, pursuant to Section 16 of the Act of June 14 18, 1934 (48 Stat. 984).</p> <p>15</p> <p>16 TOHONO O'ODHAM LEGISLATIVE COUNCIL 17  18 Timothy Joaquin, Legislative Chairman 19 20 21 22 day of November, 2011</p> <p>23</p> <p>24 ATTEST: 25  26 27 Evonne Wilson, Legislative Secretary 28 29 13 day of November, 2011 30</p> <p>31 Said Resolution was submitted for approval to the office of the Chairman of the Tohono O'odham 32 Nation on the 11 day of November, 2011 at 11:50 o'clock, A.M., 33 pursuant to the provisions of Section 4 of Article VII of the Constitution and will become effective 34 upon his approval or upon his failure to either approve or disapprove it within 48 hours of 35 submittal.</p> <p>36</p> <p>37 TOHONO O'ODHAM LEGISLATIVE COUNCIL 38  39 Timothy Joaquin, Legislative Chairman 40 41 42 43 44</p>	

Comment	Tohono O'odham Nation	Response
	<p> RESOLUTION NO. 11-551 (Opposing H.R. 1904 and Other Proposals That Would Authorize the Mining and Desecration of Oak Flat and Other Sacred Lands) Page 3 of 3 </p> <p> 1 <input checked="" type="checkbox"/> APPROVED on the <u>21</u> day of <u>November</u>, 2011 2 3 <input type="checkbox"/> DISAPPROVED at <u>3:15</u> o'clock, <u>P</u>.M. 4 5 6 7 <u>Ned Norris, Jr.</u> 8 NED NORRIS, JR., CHAIRMAN 9 TOHONO O'ODHAM NATION 10 11 12 13 Returned to the Legislative Secretary on the <u>21</u> day of 14 <u>November</u>, 2011, at <u>3:19</u> o'clock, <u>P</u>.M. 15 16 <u>Evonne Wilson</u> 17 18 Evonne Wilson, Legislative Secretary 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 </p>	

Comment	Tohono O'odham Nation	Response																																																																																																																																																													
	<div>RESOLUTION NO. <u>11-551</u></div> <div>ACTION: OPPOSING H.R. 1904 AND OTHER PROPOSALS THAT WOULD AUTHORIZE THE MINING AND DESECRATION OF OAK FLAT AND OTHER SACRED LANDS</div> <div>MOVED: COUNCILWOMAN SANDRA ORTEGA SECOND: COUNCILWOMAN EVELYN JUAN MANUEL</div> <div>DATE: NOVEMBER 18, 2011</div> <table><tr><th>DISTRICT</th><th>LEGISLATIVE REPRESENTATIVES</th><th># OF VOTES</th><th>FOR</th><th>AGAINST</th><th>NOT VOTING</th><th>ABSENT</th></tr><tr><td rowspan="2">BABOQUITVARI 342.0</td><td>1. FRANCES MIGUEL (Roberta Harvey)</td><td>171.0</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. FRANCES G. ANTONE (Absent) (Vernon Smith) (Present)</td><td>171.0</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">CHUKUT KUK 302.2</td><td>1. ETHEL GARCIA (Sara Mae Williams)</td><td>151.10</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. BILLMAN LOPEZ ()</td><td>151.10</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">GU ACHI 244.9</td><td>1. TIMOTHY L. JOAQUIN (Rose Johnson Antone)</td><td>122.45</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. CYNTHIA E. MANUEL (Louis L. Johnson)</td><td>122.45</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">GU VO 226.7</td><td>1. GRACE MANUEL (Floyd Flores)</td><td>113.35</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. PAMELA ANGHILL (Angela Ortiz)</td><td>113.35</td><td>X</td><td></td><td></td><td>X</td></tr><tr><td rowspan="2">HICKIWAN 186.3</td><td>1. LOUIS R. LOPEZ (Michelle Ortega)</td><td>93.15</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. SANDRA ORTEGA ()</td><td>93.15</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">PISINEMO 200.7</td><td>1. CHESTER ANTONE ()</td><td>100.35</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. EDWARD MANUEL (Gerald Fayuan)</td><td>100.35</td><td>X</td><td></td><td></td><td>X</td></tr><tr><td rowspan="2">SAN LUCY 204.6</td><td>1. LORRAINE EILER ()</td><td>102.30</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. JANA MONTANA (Gloria Ramirez)</td><td>102.30</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">SAN XAVIER 215.8</td><td>1. HILARION CAMPUS ()</td><td>107.90</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. OLIVIA VILLEGAS-LISTON (Eugene Enis)</td><td>107.90</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">SCHUK TOAK 169.8</td><td>1. FRANCES B. CONDE ()</td><td>84.90</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. FREDERICK JOSE (Phyllis Cachora)</td><td>84.90</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">SELLS 475.7</td><td>1. ARTHUR WILSON (Kimberly Mull)</td><td>237.85</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. EVELYN B. JUAN MANUEL ()</td><td>237.85</td><td>X</td><td></td><td></td><td></td></tr><tr><td rowspan="2">SIF OIDAK 211.9</td><td>1. NICHOLAS JOSE ()</td><td>105.95</td><td>X</td><td></td><td></td><td></td></tr><tr><td>2. MARY LOPEZ ()</td><td>105.95</td><td>X</td><td></td><td></td><td>X</td></tr><tr><td colspan="2">TOTAL</td><td>2,780.60</td><td>2,780.60</td><td>-0-</td><td>-0-</td><td>[03]</td></tr></table>	DISTRICT	LEGISLATIVE REPRESENTATIVES	# OF VOTES	FOR	AGAINST	NOT VOTING	ABSENT	BABOQUITVARI 342.0	1. FRANCES MIGUEL (Roberta Harvey)	171.0	X				2. FRANCES G. ANTONE (Absent) (Vernon Smith) (Present)	171.0	X				CHUKUT KUK 302.2	1. ETHEL GARCIA (Sara Mae Williams)	151.10	X				2. BILLMAN LOPEZ ()	151.10	X				GU ACHI 244.9	1. TIMOTHY L. JOAQUIN (Rose Johnson Antone)	122.45	X				2. CYNTHIA E. MANUEL (Louis L. Johnson)	122.45	X				GU VO 226.7	1. GRACE MANUEL (Floyd Flores)	113.35	X				2. PAMELA ANGHILL (Angela Ortiz)	113.35	X			X	HICKIWAN 186.3	1. LOUIS R. LOPEZ (Michelle Ortega)	93.15	X				2. SANDRA ORTEGA ()	93.15	X				PISINEMO 200.7	1. CHESTER ANTONE ()	100.35	X				2. EDWARD MANUEL (Gerald Fayuan)	100.35	X			X	SAN LUCY 204.6	1. LORRAINE EILER ()	102.30	X				2. JANA MONTANA (Gloria Ramirez)	102.30	X				SAN XAVIER 215.8	1. HILARION CAMPUS ()	107.90	X				2. OLIVIA VILLEGAS-LISTON (Eugene Enis)	107.90	X				SCHUK TOAK 169.8	1. FRANCES B. CONDE ()	84.90	X				2. FREDERICK JOSE (Phyllis Cachora)	84.90	X				SELLS 475.7	1. ARTHUR WILSON (Kimberly Mull)	237.85	X				2. EVELYN B. JUAN MANUEL ()	237.85	X				SIF OIDAK 211.9	1. NICHOLAS JOSE ()	105.95	X				2. MARY LOPEZ ()	105.95	X			X	TOTAL		2,780.60	2,780.60	-0-	-0-	[03]	
DISTRICT	LEGISLATIVE REPRESENTATIVES	# OF VOTES	FOR	AGAINST	NOT VOTING	ABSENT																																																																																																																																																									
BABOQUITVARI 342.0	1. FRANCES MIGUEL (Roberta Harvey)	171.0	X																																																																																																																																																												
	2. FRANCES G. ANTONE (Absent) (Vernon Smith) (Present)	171.0	X																																																																																																																																																												
CHUKUT KUK 302.2	1. ETHEL GARCIA (Sara Mae Williams)	151.10	X																																																																																																																																																												
	2. BILLMAN LOPEZ ()	151.10	X																																																																																																																																																												
GU ACHI 244.9	1. TIMOTHY L. JOAQUIN (Rose Johnson Antone)	122.45	X																																																																																																																																																												
	2. CYNTHIA E. MANUEL (Louis L. Johnson)	122.45	X																																																																																																																																																												
GU VO 226.7	1. GRACE MANUEL (Floyd Flores)	113.35	X																																																																																																																																																												
	2. PAMELA ANGHILL (Angela Ortiz)	113.35	X			X																																																																																																																																																									
HICKIWAN 186.3	1. LOUIS R. LOPEZ (Michelle Ortega)	93.15	X																																																																																																																																																												
	2. SANDRA ORTEGA ()	93.15	X																																																																																																																																																												
PISINEMO 200.7	1. CHESTER ANTONE ()	100.35	X																																																																																																																																																												
	2. EDWARD MANUEL (Gerald Fayuan)	100.35	X			X																																																																																																																																																									
SAN LUCY 204.6	1. LORRAINE EILER ()	102.30	X																																																																																																																																																												
	2. JANA MONTANA (Gloria Ramirez)	102.30	X																																																																																																																																																												
SAN XAVIER 215.8	1. HILARION CAMPUS ()	107.90	X																																																																																																																																																												
	2. OLIVIA VILLEGAS-LISTON (Eugene Enis)	107.90	X																																																																																																																																																												
SCHUK TOAK 169.8	1. FRANCES B. CONDE ()	84.90	X																																																																																																																																																												
	2. FREDERICK JOSE (Phyllis Cachora)	84.90	X																																																																																																																																																												
SELLS 475.7	1. ARTHUR WILSON (Kimberly Mull)	237.85	X																																																																																																																																																												
	2. EVELYN B. JUAN MANUEL ()	237.85	X																																																																																																																																																												
SIF OIDAK 211.9	1. NICHOLAS JOSE ()	105.95	X																																																																																																																																																												
	2. MARY LOPEZ ()	105.95	X			X																																																																																																																																																									
TOTAL		2,780.60	2,780.60	-0-	-0-	[03]																																																																																																																																																									