

RECLAMATION

Managing Water in the West

Third-Party Consultant

Public Scoping Report

NEW MEXICO UNIT OF THE CENTRAL ARIZONA PROJECT
ENVIRONMENTAL IMPACT STATEMENT



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Prepared For:



U.S. Department of the Interior
Bureau of Reclamation, Lower Colorado Region



New Mexico Interstate
Stream Commission
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MISSION STATEMENTS

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

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

The mission of the New Mexico Interstate Stream Commission is to investigate water supply, to develop, to conserve, to protect, and to do any and all other things necessary to protect, conserve, and develop the waters and stream systems of this state, interstate, or otherwise.

Front Cover: Gila River near Cliff, New Mexico

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A Scoping Materials

Acronyms and Abbreviations

	Full Phrase
AWSA	Arizona Water Settlements Act of 2004
CAP	Central Arizona Project
cfs	cubic feet per second
CUFA	Consumptive Use and Forbearance Agreement
EIS	environmental impact statement
ISC	New Mexico Interstate Stream Commission
NEPA	National Environmental Policy Act
NM Unit	New Mexico Unit
Reclamation	United States Department of Interior, Bureau of Reclamation

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Chapter 1. Introduction

Purpose of the Scoping Report

The purposes of this scoping report are to provide an overview of the New Mexico Unit (NM Unit) of the Central Arizona Project (CAP) Environmental Impact Statement (EIS), to document the scoping process, and to discuss the findings from the process. The findings include an overview of identified issues that will be addressed in the EIS.

Scoping is a collaborative public involvement process implemented early in the National Environmental Policy Act of 1969 (NEPA) process. The goal of public scoping is to determine the issues to be addressed and to identify potentially significant issues related to the proposed action, so they can be analyzed appropriately in the EIS.

The joint lead agencies cannot and do not guarantee the accuracy and assertions of comments provided by the public. The purpose of the summary of scoping results in Chapter 2 is to document these comments and provide an overview of the issues raised without verifying the accuracy of submissions at this stage of the process.

Project Overview

Project Background

The US Department of the Interior, Bureau of Reclamation (Reclamation) Lower Colorado Region and the New Mexico Interstate Stream Commission (ISC), together known as the lead agencies, are preparing a draft EIS. The EIS is prepared to analyze the environmental impacts of carrying out the proposed water diversion, storage, conveyance, and delivery components of the NM Unit of the CAP in southwestern New Mexico. The New Mexico CAP Entity (Entity) was formed to develop the NM Unit. The proposed action would allow the Entity to utilize a portion of the 14,000 acre-feet of water allotted for consumptive use to be diverted from the Gila River and its tributaries and then stored for later use.

The NM Unit would divert water from the Gila River and its tributaries, including the San Francisco River and/or underground sources. It would convey the water for storage in several off-stream sites in the Cliff-Gila Valley, along the San Francisco River, and in the New Mexico Virden Valley. Water would be subsequently delivered to agricultural users in those valleys in New Mexico.

The Colorado River Basin Project Act of 1968 authorized the CAP to deliver Arizona's allocation of Colorado River water to central and southern Arizona. The 1968 Act also allocated some water to New Mexico, under conditions that were refined through the Arizona Water Settlements Act of 2004 (AWSA). Together, these acts authorized the Secretary of Interior to

contract with water users in New Mexico for consumptive use of water, up to an annual average of 14,000 acre-feet over a 10-year consecutive period. This New Mexico consumptive use would be above what is provided by Article IV of the Decree of the Supreme Court of the United States in *Arizona v. California*, 376 US 340 (1964). In exchange, CAP water would be delivered to downstream users in Arizona and New Mexico.

Furthermore, the AWSA ratified the Consumptive Use and Forbearance Agreement (CUFA), signed by Gila River users downstream in Arizona. It details the conditions that must be met for New Mexico users to be able to divert water from the Gila River and its tributaries.

The Entity is the project proponent pursuant to the AWSA. It is composed of representatives from counties, municipalities, irrigation districts, and soil and water conservation districts in the region of Catron, Grant, Hidalgo, and Luna Counties in southwest New Mexico. The ISC is a non-voting member of and a fiscal agent for the Entity.

The AWSA required the Secretary and the Entity to sign the New Mexico Unit Agreement (Agreement). The Agreement and the AWSA specifically call for full environmental review of any potential NM Unit, including review under NEPA, the Endangered Species Act of 1973, the National Historic Preservation Act, and other related statutes. As allowed by the AWSA, New Mexico, acting through the ISC, has requested to be a joint lead for NEPA purposes.

The EIS will comply with NEPA (42 United States Code [USC] 4321 et seq.), the Council on Environmental Quality's (CEQ) Regulations for Implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] 1500–1508), the US Department of Interior's NEPA Regulations (43 CFR 46), Executive Order 13807, and other relevant federal and state laws and regulations.

Description of the Project Area

The project area includes lands around portions of the Gila River and its tributaries in three counties in southwestern New Mexico: Catron, Grant, and Hidalgo Counties. No project components are proposed for Luna County as part of this action.

Areas where infrastructure are proposed are the Upper Gila (along the Gila River near the Cliff-Gila and Riverside areas), the Virden Valley (along the Gila River near the Arizona state line), and the San Francisco River (the Spurgeon and WS Ditch diversions near Alma and the east and west ditches at Pleasanton).

Overview of the Public Involvement Process

Public involvement is a vital part of the NEPA process. It facilitates environmental disclosure and provides the opportunity for those affected by project actions to take part in the decision-making process. Guidance for implementing public involvement under NEPA is codified in 40 CFR 1506.6, ensuring that federal agencies make a diligent effort to involve the public in the process. Additional information on Reclamation's requirements for public involvement can be found in

Reclamation's NEPA Handbook available online at https://www.usbr.gov/nepa/docs/NEPA_Handbook2012.pdf (Reclamation 2012).

Public involvement is being conducted throughout this EIS process; however, the public has specific opportunities to comment during three phases, as follows:

1. Public scoping before NEPA analysis begins informs the scope of issues and alternatives addressed in the EIS; this occurred during the June 12 to July 20, 2018, scoping period and is summarized in this scoping report; comments received through July 23, 2018, are included
2. Public review of and comment on the draft EIS (anticipated in winter 2018/2019)
3. Final EIS to be made available to the public, anticipated in summer 2019

This scoping report documents the results of phase 1 of the public involvement process.

Scoping is an early and open process for determining the extent of issues to be addressed and identifying the significant issues related to a proposed action. Reclamation is using the information collected during scoping to inform the development of the alternatives to be analyzed in the EIS. Scoping is designed to be a public process utilized to identify the concerns of high importance to the public. Scoping helps ensure that potential issues are identified early and that they are properly studied, that issues that are not significant do not consume time and effort, and that the proposed action and alternatives are balanced, thorough, and implementable.

This scoping report summarizes the scoping process and the comments received during the scoping period. It also describes the issues raised during scoping and includes a discussion of how these issues are being incorporated into the EIS.

Description of the Scoping Process

Reclamation and ISC are following the public involvement requirements documented in the CEQ regulations implementing NEPA (40 CFR 1501.7 for scoping and 1506.6 for public involvement). Reclamation and ISC solicited comments from relevant tribes, agencies, and the public and organized and analyzed all comments received to identify the issues that will be addressed during the planning and NEPA processes. These issues define the scope of analysis for the EIS and were used to develop the project alternatives.

As part of the scoping process for the proposed NM Unit of the CAP EIS, Reclamation and the ISC hosted public meetings to identify public concerns. They held eight scoping meetings in and around the project area, in Albuquerque, Silver City, Cliff, Glenwood, and Virden, New Mexico, and in Chandler, San Carlos, and Safford, Arizona. Reclamation advertised these meetings in a press release and newspaper advertisements. Meetings and advertisement materials are described in the sections below.

Project Website

Reclamation and ICS have developed a website to provide updated information on the EIS process: <https://www.nmuniteis.com>. It provides background information, a description of the project, and information on public involvement. The website also allows visitors to submit comments on the proposed action. The formal scoping period for the proposed action closed on July 20,

Press Release

In June 2018 Reclamation distributed a press release to media outlets in and around the project area and the entire Southwest. It was titled “Reclamation to hold public meetings to assess environmental impacts of the New Mexico Unit.” The press release provided the dates and venues for the scoping meetings, briefly described the project, and explained the various methods for submitting comments (see **Appendix A**, Scoping Materials).

Newsletter and Mailing List

Reclamation and ISC mailed and emailed a newsletter on June 13, 2018, announcing the scoping period to 399 individuals, businesses, agencies, and tribes (see **Appendix A**).

Newspaper Advertisements

Reclamation published an advertisement announcing the scoping meetings in five newspapers, as shown in **Table 1**, below. An example of the newspaper advertisement is in **Appendix A**.

Table 1. Newspaper Advertisements

Newspaper	Publication Date (2018)
<i>Albuquerque Journal</i>	June 18,19, and 20
<i>Arizona Republic</i>	June 20, 22, and 24
<i>Arizona Silver Belt and Apache Moccasin</i>	June 20, 27, and July 3
<i>Silver City Daily Press</i>	June 18, 19, and 20

Scoping Meetings

In addition to the formal scoping process and working with the local, state, and federal cooperating agencies, Reclamation and ISC hosted eight open house scoping meetings. These meetings were designed to provide the public with opportunities to become involved, to learn about the proposed action, to meet with Reclamation, ISC, and team members from other agencies, and to offer comments. The meetings were advertised via press release, newspaper advertisements, and the project website. The locations of the scoping meetings and the number of attendees who chose to sign in are provided in **Table 2**, below.

Scoping meetings were conducted in an open house format to encourage participants to discuss concerns and questions with Reclamation and other agency representatives. Attendees signed in at the door and were encouraged to visit four informational stations with posters and handouts, to ask questions, and to make comments. A commenting station allowed attendees to submit written comments or to verbally submit comments to be transcribed and submitted directly. All materials from the scoping meetings can be found on the project website (<https://www.nmuniteis.com/documents/>) and in **Appendix A**.

Table 2. Scoping Meetings

Location	Venue	Dates (2018)	Number of Attendees
Albuquerque, New Mexico	State Bar of New Mexico	July 2	98
Chandler, Arizona	Wild Horse Pass Hotel and Casino	July 6	15
San Carlos, Arizona	Apache Gold Casino Resort	July 7	3
Silver City, New Mexico	Grant County Veterans Memorial Business and Conference Center	July 9	106
Cliff, New Mexico	Cliff High School	July 10	44
Glenwood, New Mexico	Glenwood Community Center and Library	July 11	13
Virden, New Mexico	Virden Community Center	July 12	36
Safford, Arizona	Graham County General Services Building	July 13	24

Collaborative Involvement Process

NEPA implementing regulations (43 CFR 46) require lead agencies to request participation of cooperating agencies early in the NEPA process. Reclamation and ISC are the lead agencies and invited parties that have jurisdiction by law or special expertise to collaborate on this EIS. To date, the following agencies have accepted:

- US Fish and Wildlife Service
- US Army Corps of Engineers
- US Geological Survey
- US Bureau of Land Management

Other governmental agencies have also requested to be cooperating agencies:

- New Mexico Department of Game and Fish
- San Carlos Irrigation and Drainage District
- Catron County
- San Francisco Soil and Water Conservation District

In addition to working with the local, state, and federal cooperating agencies on this EIS, Reclamation and ISC have met with other state and local agencies, non-governmental organizations, and with tribes to learn of their concerns. Under Reclamation's trust responsibility to tribes and pertinent executive orders and regulations, the federal government initiated tribal consultation in 2018 and will continue tribal consultation throughout the planning process.

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Chapter 2. Scoping Results

Method of Comment Collection and Analysis

Reclamation and ISC collected written comments about the EIS and the issues that should be considered through public scoping meetings, letters, and emails. Additionally, scoping meeting attendees had the option of verbally providing comments that could be transcribed and handed in directly; however, there were no verbal comments received during the scoping meetings. All submissions were reviewed to identify specific issues or concerns. Each substantive comment was categorized, based on the topic or topics discussed. Substantive comments are those that provide specific, detailed information about the effects of the project and issues that should be considered for analysis in the EIS. During the development of alternatives considered in the EIS, Reclamation and ISC are taking into consideration the issues brought forward in these comments.

All written submissions received on or before July 23, 2018, were evaluated and are documented in this scoping summary report. Once received, each submission was read and broken down into specific comments. Every submission was individually evaluated and considered by a Public Engagement Specialist for overall content and issues, and then parsed into individual unique substantive comments. These comments were then organized into issue topics and were included in issue statements and comment summaries (Summary of Public Comments Received). Comments were categorized by comment type, commenter affiliation, and issue topic. The comments were then organized using the assigned codes in Microsoft Excel.

Identical comments were organized as a group; however, this does not reduce the importance of the comments.

The joint lead agencies cannot and do not guarantee the accuracy and assertions of comments provided by the public. The purpose of this summary of scoping results in Chapter 2 is to document these comments and provide an overview of the issues raised without verifying the accuracy of submissions at this stage of the process.

Table 3. Comment Types

Comment Type		
CFC	Comment form	41
HDC	Hand delivered	8
EMC	Email	381
RMC	Regular mail	7
WBC	Website	123
Total		560

Table 4. Commenter Location

Commenter Location		
AR	Arkansas	1
AZ	Arizona	25
CA	California	2
CO	Colorado	4
Croatia	International	1
GA	Georgia	1
KS	Kansas	1
MD	Maryland	1
NH	New Hampshire	1
NM	New Mexico	408
NV	Nevada	2
NY	New York	1
OK	Oklahoma	2
OR	Oregon	1
SC	South Carolina	1
TX	Texas	14
UT	Utah	3
N/A	Not Specified	91
Total		560

Summary of Public Comments Received

Reclamation and ISC received 1,444 comments from 560 submissions during the public scoping period. Of these submissions, two were form letters with a total of 854 signatures, two were petitions with a total of 375 signatures, seven were regular mail, 382 were emailed, 41 were comment forms, and 122 were from the project website. Of the total 1,444 unique comments received, 1,136 were determined to be substantive.

Proposed Project Issues

Issue Statement: What are the details of the proposed project?

- The proposed project is vaguely defined and makes it difficult to provide substantial comments.
- The lack of details will not allow for effective analysis of impacts.
- Without knowing locations and design of proposed components, landowners cannot understand how the proposed project will affect them.
- The description of the proposed project is too vague to assess its technical feasibility.
- How will AWSA water be metered for users and costs be implemented.
- Engineering details, diversion amounts, and locations of all the proposed components are requested.

- There is concern that maps and figures provided to the public do not accurately depict existing river and floodplain conditions and therefore locations for proposed components are not accurate.
- Diversion models yield different results and, without project specifics and inputting CUFA requirements, project impacts cannot be determined.
- Explain how water use will be measured and how AWSA water is distinguished from adjudicated water.
- There is concern that eminent domain will be used to provide construction access, and landowners request more information.
- The rationale for expanding the diversions and ditches beyond the need of irrigators is not adequate.
- The proposal to make the ditches larger is not necessary. If each of the three ditches diverted water into storage at a rate of only seven cubic feet per second (cfs) from November through February, approximately 5,000 acre-feet could be stored.
- Commenters request that Reclamation reissue the Notice of Intent with a revised and legally compliant statement of purpose and need.

Issue Statement: Is the proposed project feasible?

- The costs to construct, maintain, and operate the proposed project are insufficient.
- Components that may render the proposed project technically infeasible are groundwater withdrawals and aquifer storage and recovery due to unfavorable hydrogeologic conditions; Winn Canyon Reservoir construction due to unfavorable geotechnical conditions; diversion structure operation and maintenance due to dynamic floodplain conditions; siting of ponds and irrigable land due to current land uses; water table levels and inability to meet irrigation needs due to diversion and storage operating requirements.
- There is concern that locations of some of the storage ponds are in areas where the groundwater table is too close to the surface to allow for feasible storage.
- Some project components may violate existing laws and regulations, such as use of groundwater not being authorized under Section 212 the 2004 AWSA.
- Commenters question if CUFA requirements and stipulations would be met before diverting water, considering climate change, droughts, reduced snowpack, lower flows, etc., to justify the proposed project.
- Funding allocated to the proposed project will be depleted to support engineering design, technical studies, consulting services, NEPA evaluation, and potential litigation and will not allow for construction, maintenance, or operation.
- Property owners have not been contacted to seek approval for proposed project components and may deny access for project access.
- A commenter stated the current adjudicated amount of water is 30,000 acre-feet and current use is approximately 15,000 acre-feet and questions why more money would

be spent to divert additional water if the current allowable use is below the adjudicated amount.

- There are concerns if there would be enough interested, willing, and able agricultural users to purchase water to make the project feasible.
- Commenters note that the Globe Equity Decree gives tribes 1846 priority rights, including allotting the San Carlos Apache 6,000 acre-feet of water from the Gila River. Commenters are concerned that the proposed project could not be allowed under this decree as it limits the amount of diversion to 6 acre-feet per year at a rate of 1/80th cfs per acre and that limit is not compatible with the proposed project.

Issue Statement: What alternatives are being considered for the proposed projects?

- Consider a no action alternative.
- Consider environmentally friendly diversion alternatives to the proposed action.
- Ensure design alternatives will allow for safe recreational use of the river.
- Analyze non-diversion alternatives to meet the needs of the AWSA.
- Consider alternatives in the Deming Water Alternative report, the Southwest Regional Water Plan, and the Grant County Regional Water Plan to meet the area's water needs.
- Consider an alternative to provide more water conservation equipment for farmers. Upgrade and repair existing infrastructure and implement more water conservation systems and education to meet the needs of the farmers, while reducing the amount of water diverted from the rivers.
- Commenters are concerned that the too narrow purpose precludes consideration of non-diversion alternatives and ignores Section 212 of the AWSA, where funds can be used for diversion “or other water utilization alternatives to meet water supply demands in the Southwest Water Planning Region of New Mexico.”
- Viable alternatives for water conservation, including intelligent well placement and usage, water catchment on a larger scale, and widespread water conservation implementation, have been proposed that could meet the water needs of the proposed action.
- The starting point for alternatives design should be a thorough water budget analysis linked to the natural and human induced functioning of the socio-agro-ecosystem for the Cliff-Gila Valley, accounting for all inflows and outflows over time.
- Include consideration of aquifer management, transfer of water rights, water reuse, loss reduction, planned agricultural water transfers, and conservation efforts on the part of farms and public and private users to meet water needs.
- Commenters stated Deming and Luna County can secure a sustainable water supply by investing funds in sustainable groundwater management of the Mimbres Basin aquifer, water conservation and water leak detection and repair, water reuse, and transfer of existing city-owned agricultural water rights to municipal use.

- An alternative to secure a water source for Hurley would benefit more people.
- A system more similar to the proposed Upper Gila Valley system of localized ponds and distribution would be much more applicable, cost effective, and far less wasteful.
- Dams and channels should be lined with plastic instead of clay or asphalt.
- Pump adjudicated water into the ditches in the summer, when the ditches usually run low, in exchange for releasing the stored water at an equivalent rate to meet the senior rights of downstream users and CUFA requirements.

Economics

Issue Statement: What is the cost/benefit analysis and who will benefit from the project?

- Agriculture should not be the only segment of the regional economy that benefits from the funds. The AWSA purpose is to provide water security for all southwestern New Mexico.
- There is concern that ecotourism and recreational values will not be considered in cost-benefit analyses.
- There is concern that the cost of the planning process and construction of the proposed project exceeds the benefit the project would provide.
- Commenters question if the project will benefit local agricultural users or corporations, such as Freeport-McMoRan.
- The loss of ecological services resulting from the proposed project needs to be considered in the cost-benefit analysis.
- The project will divert funds from community water projects that would benefit 60,000 people in southwestern New Mexico.
- Irrigable land will be limited to low dollar value pasture crops. For commercial fruit operations the growing season is significantly shortened by late frosts, resulting from proximity to Gila Mountain Front; therefore, high value agricultural products should not be included in economic analyses.

Issue Statement: What is the total cost of the proposed project?

- The public requests a true total cost of the project, including the planning process, design engineering, monitoring and enforcement, construction, maintenance, and operation.
- The costs of mitigation or where funding will come from to support mitigation costs have not been evaluated.
- The costs of materials increased due to current international trade policies and will change the actual cost of the project.
- Costs for metering, water accounting, and enforcement of AWSA water-use stipulations must be included to protect existing water rights.
- The proposed project may have unforeseen costs for maintenance and reconstruction, due to high magnitude flooding, increased bank instability, and sedimentation.

Issue Statement: Who will pay for the project?

- There is concern about who will pay for the project and how much will fall on taxpayers.
- Commenters feel the AWSA subsidy will not cover the costs of the proposed project.
- The low number of water use beneficiaries cannot afford to fund the project construction, operation, or maintenance and bear the costs of CAP water exchange.

Issue Statement: How will the lead agencies analyze costs to local residents as a result of the project?

- The proposed project may affect the regional water table, leading to increased expenditures by residents for developing deeper wells and water conservation measures.
- Concern that the cost of water per acre-foot will rise drastically for both New Mexico and Arizona users.

Vegetation

Issue Statement: What are the effects of improving the efficiency of water delivery via instream structures and canal lining on riparian vegetation?

- Evaluate the impacts of the project on the conservation and formation of riparian habitat and associated wildlife, including threatened and endangered species in the project area and downstream.
- Describe how instream structures and lining and deepening canals will impact wildlife and the formation of riparian habitat and wetlands.

Issue Statement: How would altering the groundwater levels and flow regime of the rivers impact riparian vegetation and wetlands?

- Evaluate the impacts of altering flow regime on native vegetation and wetlands associated with the Gila River.
- Determine the effects of altering groundwater levels on vegetation.

Wildlife

Issue Statement: How will the proposed project affect wildlife?

- There are concerns that the proposed project will negatively affect wildlife habitat and cause the loss of wildlife species.
- Lining canals/ditches will cause the loss of seepage-dependent riparian vegetation, as well as the wildlife that depend on these vegetation communities.
- Concerns for infrastructure construction and operation impacts on wildlife.
- The proposed project could introduce nonnative species that could compete with and harm native wildlife.
- The EIS must address the project's impacts on downstream flows and the flora and fauna of the riparian corridors that depend on the water that moves downstream, both in the riverbed and in the water table.

Issues: How will the proposed project affect federally listed species, other species of special concern and their habitats?

- The project area supports critical habitat for seven threatened or endangered species: the loach minnow and spikedace, southwestern willow flycatcher, yellow billed cuckoo, northern Mexican garter snake, narrow headed garter snake, and Chiricahua leopard frog.
- The project does not identify minimum flow requirements to maintain endangered species habitat within the river ecosystems.
- There are concerns that effective mitigation for federally listed species and critical habitat would not be enough to offset proposed project impacts and if comparable mitigation sites exist.
- Current and comprehensive surveys and data for listed species is not available to evaluate project impacts.
- Lining canals/ditches will remove riparian breeding habitat for southwestern willow flycatcher and yellow-billed cuckoo, as well as other migratory birds.
- Impacts on Arizona species of special concern, New Mexico state threatened and endangered species, and New Mexico species of greatest conservation need should be evaluated.
- Endangered Gila chub, state endangered roundtail chub, threatened Chiricahua leopard frog, lowland leopard frog, and birds of conservation concern (common black-hawk, Gila woodpecker, brown-crested flycatcher, Bell's vireo, Lucy's warbler, and Abert's towhee) should be considered.
- Creating storage ponds and reservoirs and expanding ditches and access roads would reduce and disconnect critical habitat.
- The storage ponds and reservoirs could create habitat and proliferation of nonnative species, which could negatively affect special status species and native wildlife.
- Lower flows as a result of the project could reduce the amount of prey and forage available for special status species.
- The United States government, through Reclamation, has invested in conservation in the Cliff-Gila Valley, purchasing land as mitigation for loss of southwestern willow flycatcher habitat due to Roosevelt Dam and Lake. The proposed project would likely degrade the mitigation parcel's values.
- There are concerns that project impacts, when considered with cumulative impacts, will impede the recovery of special status species.

Issue Statement: How will the proposed project affect native fish and other aquatic species?

- There are concerns that the proposed project will dewater the rivers or extend the dewatered periods and negatively impact native fish and aquatic species.
- The proposed storage ponds and reservoirs could increase nonnative species that would directly compete with or harm aquatic species.

Water

Issue Statement: How will the proposed project affect surface water levels?

- The availability of water is not enough to support any diversion and water storage infrastructure in the proposed project area.
- There are concerns about the loss of water due to seepage and evaporation. Holding ponds will lose too much water.
- Infiltration may occur at water storage sites.
- There are concerns that the proposed project eliminates the ISC's 150 cfs minimum flow stipulation, allowing the new diversion to dewater the river and extending the period of dewatering during ecologically critical times.
- River flows have been at an all-time low, so there is concern about where diverted water will come from.
- A concern is the proposed installation of a syphon from the Pleasanton Eastside Ditch to feed a potentially restored Pleasanton Westside Ditch. Currently all water diverted into the Eastside Ditch is used by adjudicated water rights. A syphon feeding the Westside Ditch would drastically reduce the available volume to Eastside users, unless the capacity of the Eastside Ditch is increased.

Issue Statement: How will the proposed project affect groundwater resources?

- Pumping groundwater may negatively affect regional water tables and local wells.
- Reclamation and ISC should verify the water quality of proposed wells.
- Pumping groundwater will not be adequate to recharge the proposed storage ponds and reservoirs.
- There is not enough available aquifer storage, and diversion dams will negatively affect aquifer recharge.
- There is concern that the groundwater table will lower and affect riparian and wetland vegetation.

Issue Statement: How will the proposed project impact natural hydrology and riverine structure?

- There are concerns that the proposed project will result in increased channel instability, sedimentation, and runoff.
- Bank destabilization may reduce downstream sediment concentration and increase meandering upstream.
- Loss of bank stabilization from dewatering could result in loss of riparian vegetation.
- Construction will result in dewatering some sections of the Gila river, resulting in damage to the river ecosystem.
- Changes in water runoff and flood flows may alter the salt load through leaching and reduced base flow.

- A permanent diversion with a shutoff head gate on the San Francisco Spurgeon Ditch #2 would prevent reconstruction of temporary diversions with bulldozers or other equipment and control high level flood waters from entering the ditch to remain in the river. This could benefit native fish and the riverine ecosystem.
- There are concerns that the proposed project will affect water quality, including changes in sedimentation, contamination from pesticides/herbicides/fertilizer runoff, and naturally high levels of fluoride/arsenic/radon present in wells.
- Lessened water availability in the Gila River will negatively affect the natural hydrology of the river.
- There are concerns that the proposed project will negatively affect the upper middle and lower Gila Box sections.

Issue Statement: What hydrological modeling will be used to advise the project design and analyze impacts?

- Thorough hydrological analysis needs to be conducted to determine the amount of water available for diversion.
- Structural studies for diversions, reservoirs, storage ponds, and conveyance systems need to assess the resilience to floods.
- Test wells are needed to determine aquifer storage space available.
- A water accounting model is needed to determine that the proposed project can meet the needs and purpose of the AWSA.
- Evaporation and infiltration studies are needed to track AWSA water.
- Changes in streamflow and floodplain inundation analysis is needed to determine impacts on river habitats.

Climate Change

Issue Statement: How is a changing climate being considered in the proposed project?

- Changing climate is expected to bring episodic drought conditions via increased temperatures, decreased snowpack, increased evapotranspiration, and decreased stream flows.
- Changes in ambient temperatures will cause changes to the wetlands and vegetation.
- 500-year predictive climate modeling should be evaluated under each alternative.
- Department of Interior Agency Specific Procedures require climate change impacts be analyzed.

Cultural

Issue Statement: What measures will be taken to protect archaeological sites and areas of cultural significance?

- There are likely many undocumented archaeological sites within the planning area.

- Concern about the damage to archaeological sites from dams, diversions, ditches, wells, ponds, pipes, and support roads associated with the proposed project.
- Archaeological surveys should be conducted throughout the proposed project area, particularly in Weedy Canyon and the San Francisco drainage.
- Mitigation of impacts should be implemented by the State Historic Preservation Office.

Environmental Justice

Issue Statement: How will the proposed project analyze environmental justice issues?

- Environmental justice considerations must be evaluated for the communities that stand to be affected by each alternative. Examine conservation of water rights for all communities.

Geology and Soils

Issue Statement: What is the suitability of the land for surface irrigation and is it worth building?

- Evaluate the geology of the storage ponds, wells, reservoirs, and ditches.
- Evaluate soils and topography as barriers.

Recreation

Issue Statement: What are the impacts of the proposed project on recreational uses?

- Diversion dams should be designed to allow safe passage for boaters and inner tubers.
- There is concern the proposed project will degrade the tourism values for birders, hikers, boaters, fisherman, and naturalists in the Gila River region.

Issue Statement: Will the proposed project evaluate recreation as a beneficial use of the area?

- Recreational uses of the area must be evaluated as beneficial uses.
- Describe the recreational benefits for choosing non-diversion alternatives rather than the proposed Gila River Diversion Project.

Social Use

Issue Statement: How does the proposed project affect local, regional, and national populations?

- Describe the hydrologic and economic effect of lowered groundwater on adjacent properties and communities.
- Evaluate the effect of transferring water rights away from farmers and the influence on the agricultural economy.
- Define the portion of the local community or nation that will benefit most from the proposed project, what the costs are, and who will be able to afford the water.

- Define the permitting requirements for New Mexico users to divert AWSA water.
- Describe the benefits of storing water in New Mexico for downstream users.
- Evaluate the number of people served by the proposed project compared to community water projects.
- Evaluate the effect of groundwater pumping on water rights for private or domestic wells.
- Evaluate if the cost of CAP will cause water right owners to divert water to Mimbres Basin.
- Evaluate if downstream users will continue to benefit from upstream users dedicating water to instream flow.
- Determine the effect that metering will have on users who benefit from being unmetered.
- Determine who will use the AWSA water and who will pay for the exchange water.
- Evaluate if the AWSA fund will benefit a small minority of people when it was intended to benefit the entire four-county region.
- The proposed project will lower water tables and available water recharge, affecting local well owners and requiring new costs for drilling deeper wells.

Safety

Issue Statement: Will the proposed project have management in place to control for mosquitos?

- Mosquito outbreaks may result in increased incidence of Zika virus, chikungunya virus, West Nile virus, or other diseases.

Issue Statement: Will the proposed project result in increased runoff of agricultural products, such as fertilizers, herbicides, and insecticides?

- Currently, the level of agricultural chemicals is low. Depending on crops planted with AWSA water, there may be an increased use of pesticides and herbicides.

Issue Statement: Will the proposed infrastructure, including diversion structures, present a hazard for river recreationists?

- There is concern that permanent diversion structures could pose a hazard to human safety.

Wilderness

Issue Statement: How will the proposed project affect the wilderness values of the region?

- There are concerns that the proposed project will negatively affect the wild and scenic characteristics throughout the Gila River and San Francisco River watersheds.
- Consideration for Wild and Scenic River designation should be given to protect the natural values of the Gila River under the Wild and Scenic Rivers Act.

- Evaluate the impact of the proposed project on societal uses of the Gila River as a limited resource for learning and experiencing wilderness.

Tribal

Issue Statement: How will Indian Trust Assets, including tribal water rights, be impacted by the proposed project?

- Evaluate what rights tribes have in relation to use of the diverted water and how they will be accommodated.
- Commenters are concerned that the quality, quantity, and timing of water for tribal water users will decline under the proposed project.
- Commenters are concerned that the Apache Tribe is already struggling to receive sufficient quality and quantity of water for crops and are concerned that the proposed project will make this worse.
- Commenters are concerned that the proposed project will reduce water for the San Carlos Reservoir, which relies on base flows from the Gila River.
- Commenters would like to know the impacts that the NM Unit could have on downstream water users, including tribal nations.

Issue Statement: How will impacts on tribal religion and culture be considered in the planning process?

- Chiricahua Apache say they believe that the Gila River is the heart blood of their people, and if it dies they die with it.

Public Provided Data and References

In addition to comments relating to the project process and issues, some commenters also provided resources and references to be used in the DEIS. These resources included primarily hydrologic resources, biologic resources, and economic resources. References and resources provided in comments were coded as such, saved, and sent to appropriate resource specialists to be considered for inclusion in analysis.

The following are the references and resources suggested or provided by the public during scoping. This bibliography is not inclusive of all the documents and resources available for preparing the DEIS, only full citations or documents that were provided as part of this public scoping process.

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Appendix A

Scoping Materials

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Appendix A. Scoping Materials

The public scoping outreach included an informational postcard, a press release, a newspaper advertisement, and public meeting handouts and posters. The official comment period was from June 12 through July 20, 2018.

This appendix includes the following scoping materials – Note: Meeting materials presented at the scoping meetings were current with the proposed action as of June 28, 2018.

Handouts

- Project Schedule
- Who's Who for the Project?
- Preliminary Resource Topics for Analysis
- Project Fact Sheet
- Project Components
- Consumptive Use and Forbearance Agreement (CUFA)
- Principles, Requirements, and Guidelines
- Comment Form

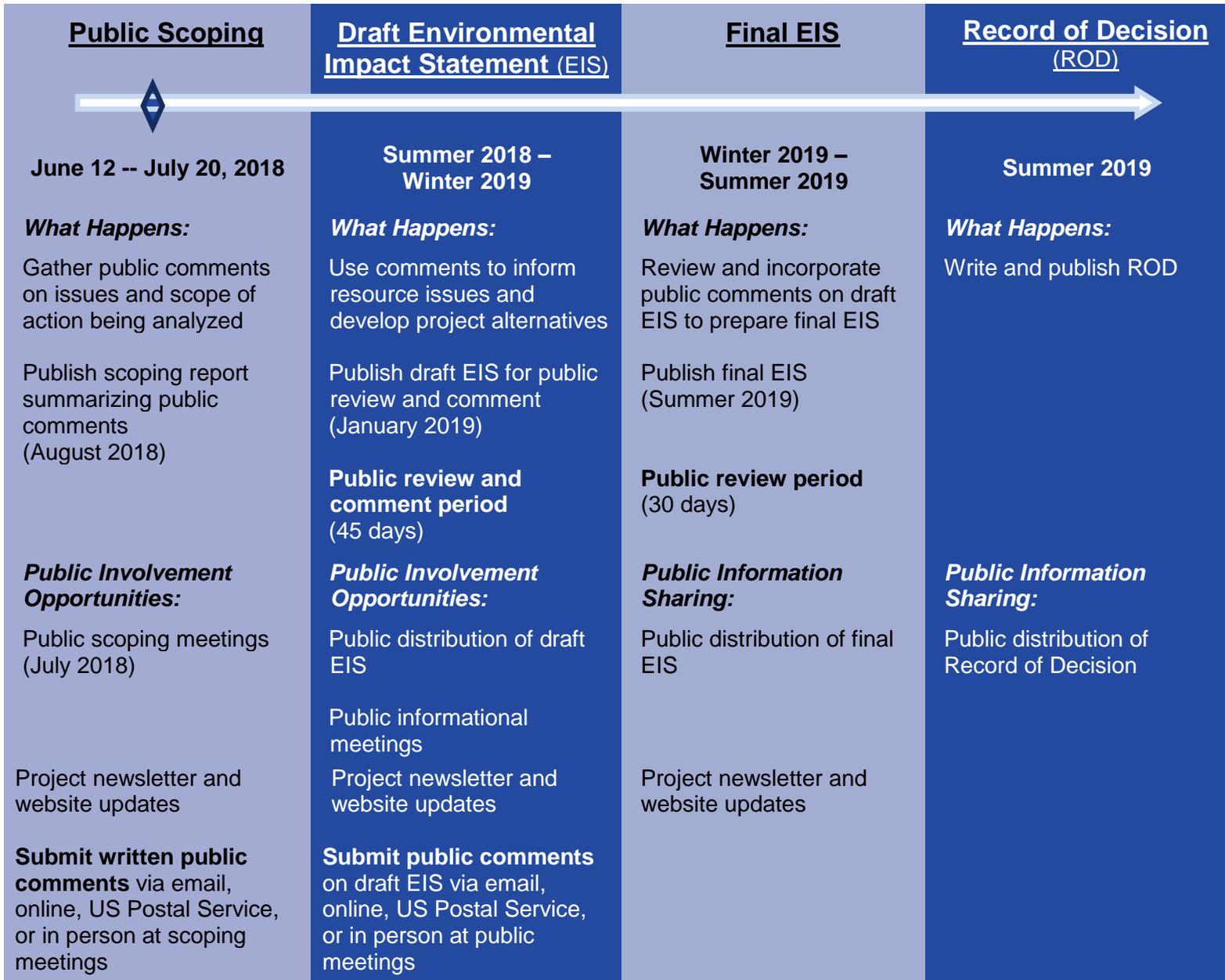
Posters

- NEPA Planning Process
- Preliminary Resource Topics for Analysis
- Endangered Species Act Requirements
- Refined - Endangered Species Act Requirements and Critical Habitat
- Area of Interest
- Cliff-Gila Component
- Virden Component
- San Francisco Component
- Project Components
- How to Submit Your Comments

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Project Schedule

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement



Secretarial Order (SO) 3355 - Streamlining National Environmental Policy Act Reviews:

Signed in September 2017, SO 3355 requires all EISs for which a DOI Bureau is a lead agency to not exceed 150 pages, or 300 pages for unusually complex projects. In addition, each Bureau shall have a target to complete an EIS within one year from issuance of the notice of intent.

To conform to SO 3355 and its objectives to streamline the NEPA process, Reclamation and the NMISC may not be able to accommodate requests for comment period extensions.

For more information, visit www.NMUnitEIS.com

July 2018



Who's Who for the Project?

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement



Joint Lead Agencies

The Joint Lead Agencies are collectively responsible for all decisions relating to the preparation of the Environmental Impact Statement (EIS) and will make all final decisions on disputes arising during the NEPA process. Their responsibilities include:

- Managing schedule and budget activities leading to an EIS for the New Mexico Unit Project
- Developing and implementing a public outreach, education, and involvement plan
- Conducting and documenting environmental investigations; and
- Preparing an EIS and related documents for the New Mexico Unit Project

Proponent

The New Mexico Central Arizona Project Entity is the project proponent and is composed of representatives of counties, municipalities, irrigation districts, and soil and water conservation districts in the four-county region of Catron, Grant, Hidalgo, and Luna in southwest New Mexico. The NMISC is a non-voting member and a fiscal agent of the Entity.

NEPA Contractor

The NEPA Contractor will conduct necessary studies and prepare the EIS using an interdisciplinary approach as required by NEPA.

Cooperating Agencies

Cooperating agencies are agencies that have jurisdiction by law or special expertise on relevant environmental issues. The role of cooperating agencies is to review important EIS documentation and provide input to the Joint Lead Agencies.



For more information, visit www.NMUnitEIS.com

July 2018



Preliminary Resource Topics for Analysis

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement

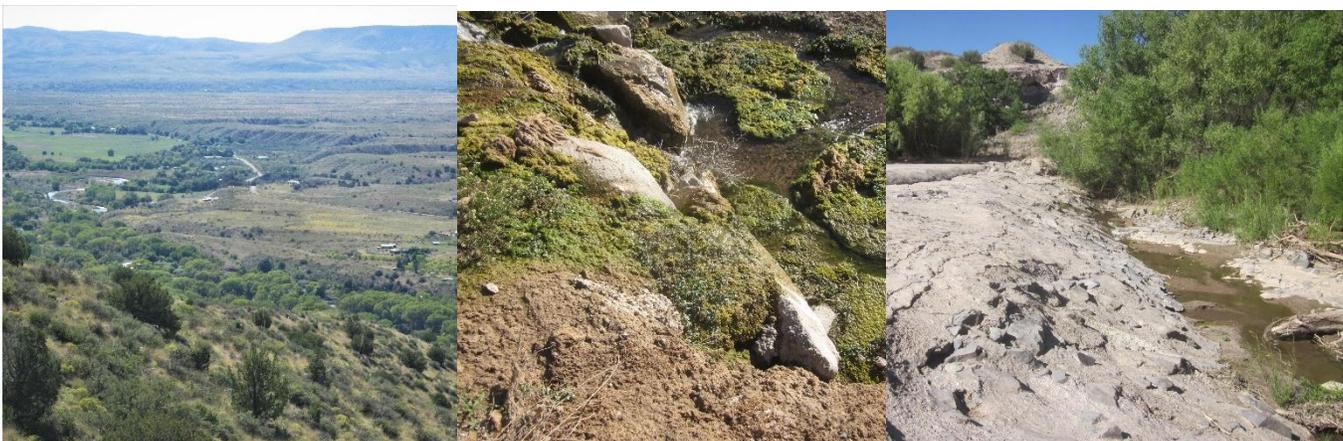
The Environmental Impact Statement (EIS) will seek to present a fully informed, thorough, and complete analysis of the potential temporary and permanent direct, indirect, and cumulative impacts of construction of the proposed New Mexico Unit of the Central Arizona Project on the natural and human environment. Preliminary key resource topics identified for analysis include:

- Water
- Vegetation
- Fish and wildlife
- Cultural resources
- Land use
- Social and economic conditions

The resource topics listed above do not represent the full set of topics that will be analyzed in the EIS. The EIS will analyze additional natural resources and resource uses that would be affected in the project area. Specific questions that may be analyzed for a given resource topic include:

- What data sources are available for the resource topic?
- What resources (e.g., cultural resources, species, etc.) are known to occur in the project area?
- What are the current resource uses and activities (e.g., agriculture, recreation, etc.) in the project area?
- How would the proposed New Mexico Unit of the Central Arizona project impact the resource or resource use?

During public scoping, Reclamation and the NMISC are requesting your input on to help answer the questions above for a given resource topic or to identify additional resource topics that should be analyzed.



For more information, visit www.NMUnitEIS.com

July 2018



Project Fact Sheet

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement

Background

The United States Department of the Interior (DOI), Bureau of Reclamation (Reclamation) Lower Colorado Region and the New Mexico Interstate Stream Commission (NMISC) are preparing an environmental impact statement (EIS) for the New Mexico Unit (NM Unit) of the Central Arizona Project (CAP). The proposed NM Unit would be a water diversion, storage, conveyance and delivery system for agricultural use. The NM Unit would divert water from the Gila River, its tributaries, or underground water sources in New Mexico, including the San Francisco River, and convey it for storage in off-stream storage sites in the Cliff-Gila Valley, along the San Francisco River, and in the Virden Valley in New Mexico, and deliver it to the target New Mexico water users.

The Colorado River Basin Project Act of 1968 and the Arizona Water Settlements Act of 2004 (AWSA) authorized the CAP to deliver Arizona's allocation of Colorado River water to central and southern Arizona. It also authorized the Secretary of the Interior (Secretary) to enter into contracts with water users in New Mexico for consumptive use of water from the Gila River in exchange for delivery of CAP water to downstream users in Arizona. The Secretary may contract with users in New Mexico for up to an annual average of 14,000 acre-feet of water over any consecutive 10-year period, over and above consumptive uses provided by Article IV of the Decree of the Supreme Court of the United States in *Arizona v. California*, 376 U.S. 340 (1964).

Additionally, the AWSA ratified the Consumptive Use and Forbearance Agreement (CUFA), signed by Gila River users downstream in Arizona. The CUFA details the conditions that must be met for New Mexico to be able to divert water from the Gila River and its tributaries in New Mexico, including the San Francisco River. Furthermore, the 1968 Act as amended by the AWSA requires that CAP water be delivered to the downstream users in Arizona in exchange for consumptive use in New Mexico.

Pursuant to the AWSA, the NMISC notified the Secretary on November 24, 2014 that New Mexico intended to pursue the construction and operation of a NM Unit. This infrastructure would allow the diversion and storage of the AWSA water from the Gila River or its tributaries in New Mexico, including the San Francisco River, in accordance with the CUFA.

The New Mexico CAP Entity (Entity) is the project proponent. It is composed of representatives of counties, municipalities, irrigation districts, and soil and water conservation districts in the four-county region of Catron, Grant, Hidalgo, and Luna in southwest New Mexico. The NMISC is a non-voting member and a fiscal agent of the Entity. The AWSA required the Secretary and the Entity to sign the New Mexico Unit Agreement (Agreement) within one year of the State's notification. The Secretary and the Entity executed the Agreement accordingly on November 23, 2015.

The Agreement and the AWSA specifically call for full environmental review of a potential NM Unit, including review under the National Environmental Policy Act (NEPA), the Endangered Species Act, the National Historic Preservation Act and other related statutes. As allowed by the AWSA, New Mexico, acting through the NMISC, has requested to be a joint lead for NEPA purposes.

For more information, visit www.NMUnitEIS.com



Pursuant to the AWSA, the Secretary is authorized to design, construct, operate, and maintain the NM Unit. However, the AWSA specified that any or all of these responsibilities will be transferred to the Entity if requested. The Entity formally requested transfer of the design authority by letter to the Secretary dated April 4, 2016. Pursuant to the Agreement, design must be in accordance with applicable Reclamation design standards even though design authority has been transferred to the Entity.

Proposed Action

As the project proponent, the Entity has provided Reclamation with a proposed action. This proposed action is still being refined. The proposed action consists of components in Grant, Catron, and Hidalgo counties, New Mexico. The proposed action would develop only a portion of the 14,000 acre-feet allowed under the AWSA, while not precluding the future development of the full amount. The precise amounts of water that would be diverted will be confirmed as the proposed action and alternatives are further refined, prior to the publication of the Draft EIS.

The proposed action includes:

- A surface water diversion structure on the Gila River, in the Cliff-Gila Valley;
- Storage ponds in the Gila River floodplain and a side drainage of the Cliff-Gila Valley, providing approximately 4,000 acre-feet of storage;
- Aquifer storage with recovery wells in the Cliff-Gila Valley;
- Gravity flow and pumped delivery of diverted water to storage facilities in the Cliff-Gila Valley;
- Pumping facilities associated with delivery of stored water in the Cliff-Gila Valley;
- Ditch improvements, including increased capacity and lining of about one-third of existing ditches in the Cliff-Gila Valley;
- Surface storage ponds in the Gila River floodplain or side channels, providing approximately 500 acre-feet of storage in the Virden Valley;
- Improvements to existing ditches for water conveyance in the Virden Valley;
- Pumping facilities associated with delivery of stored water in the Virden Valley;
- A surface water diversion structure on the San Francisco River, near Alma;
- Conveyance (i.e., open ditch, box culvert, or pipeline) construction and improvements to existing ditches for water conveyance from the proposed diversion on the San Francisco River;
- Pumping facility for delivery of diverted water to a proposed reservoir near Alma;
- Construction of an approximately 1,900 acre-foot off-stream reservoir near Alma, to store diverted water from the San Francisco River; and,
- Construction of water conveyance facilities from the reservoir to points of use along the San Francisco River.

What the Project Is	What the Project Is NOT
Implements Section 212 of the AWSA	Does NOT implement any other water rights settlement or alter any existing water rights
Surface water diversion structures on the Gila and San Francisco Rivers; structures would be just tall enough to push water into ditches or canals	NOT a storage dam or reservoir on the main stem of the Gila River
Subject to minimum flow requirements in the Gila River to be able to divert (outlined in the CUFA)	Does NOT prevent downstream users from getting their water during low flow years
Proposed action includes a Cliff-Gila component just upstream of Cliff, NM	Does NOT include any components inside the designated Gila Wilderness area

For more information, visit www.NMUnitEIS.com



Project Components

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement

The New Mexico CAP entity as the project proponent has provided the joint leads with a proposed action that is still being refined. The proposed action consists of components in Grant, Catron, and Hidalgo counties, New Mexico. Only a portion of the 14,000 acre-feet (annual average) allowed under Arizona Water Settlements Act would be developed as part of this proposed action.

1. Diversion

In order to divert water into storage and conveyance for consumptive agricultural use, surface water diversion structures are proposed on the Gila and San Francisco Rivers. Examples of possible structures are shown below and include: engineered riffle, concrete-capped gabion, Obermeyer pneumatic gate, or coanda screen intake structures. The proposed project does NOT include a storage dam or reservoir on the mainstem of the Gila River. In the Cliff-Gila Valley and San Francisco River near Alma, new diversion structures would replace temporary “pushup” diversions. In the Virden Valley, existing diversion structures would be used.



2. Storage

Surface-storage ponds can improve agricultural water security through the capture, storage, and provision of water for irrigation. Proposed storage ponds would be sited off the mainstem of the rivers and receive water directly from ditches via gravity flow or pumping. The proposed aquifer, storage and recovery method uses infiltration of surface water into an underground aquifer for later recovery and use via conventional wells. The aquifer storage and recovery method is gaining popularity across the US, especially in areas with few surface water sources and high potential for water shortages.

Proposed storage includes:

- Storage ponds in the Gila River floodplain and a side drainage of the Cliff-Gila Valley, providing approximately 4,000 acre-feet of storage
- Aquifer storage and recovery wells in the Cliff-Gila Valley
- Surface storage ponds in the Gila River floodplain or side channels, providing approximately 500 acre-feet of storage in the Virden Valley
- Construction of an approximately 1,900 acre-foot off-stream reservoir near Alma, to store diverted water from the San Francisco River

For more information, visit www.NMUnitEIS.com



3. Conveyance

The proposed action emphasizes improvement and expansion of existing ditches to minimize surface disturbance and increase water efficiency. Surface-storage ponds would have gated inlets for filling and gated outlets with outfall lines to release water from storage into ditches.

Proposed conveyance includes:

- Ditch improvements, including increased capacity and lining a portion of existing ditches in the Cliff-Gila Valley
- Improvements to existing canals for water conveyance in the Virden Valley
- Conveyance (i.e., open ditch, box culvert, or pipeline) construction and improvements to existing ditches for water conveyance from the proposed diversion on the San Francisco River
- Gravity flow and pumped delivery of diverted water to storage facilities in the Cliff-Gila Valley
- Pumping facility for delivery of diverted water to a proposed reservoir near Alma



4. Delivery

Water that has been diverted and stored would be delivered at the times, locations, and in quantities that would improve agricultural use. Improvements are planned for canals and ditches to enhance efficiency of delivery.

Proposed delivery includes:

- Construction of water conveyance facilities from the reservoir to points of use along the San Francisco River
- Pumping facilities associated with delivery of stored water in the Virden Valley

For more information, visit www.NMUnitEIS.com



Consumptive Use and Forbearance Agreement (CUFA)

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement

New Mexico Consumptive Use and Forbearance Agreement (CUFA)

Summary

The Arizona Water Settlement Act of 2004 (AWSA) ratified the Consumptive Use and Forbearance Agreement (CUFA), signed by Gila River users downstream of New Mexico. The CUFA details the conditions that must be met for New Mexico to be able to divert water from the Gila River and its tributaries in New Mexico, including the San Francisco River. The Colorado River Basin Project Act of 1968 as amended by the AWSA requires that CAP water be delivered to some downstream users in Arizona in exchange for consumptive use in New Mexico.

Note: This summary does not capture ALL the requirements of the CUFA. Please consult the CUFA and its exhibits for more detail.

- New Mexico can never divert more than 350 cubic feet per second (cfs) out of the Gila or the San Francisco.
- Before New Mexico can divert any water, there must be satisfaction of the water quality injunction of the Globe Equity court for delivery of water of good quality to the San Carlos Apache Tribe.
- New Mexico must provide notice to the forbearing parties two (2) years before diversions begin.
- The exchange is one for one: for every acre-foot of water used in New Mexico, the Gila River Indian Community and the San Carlos Irrigation & Drainage District receive one acre-foot of Central Arizona Project water (to be divided 55% to the Community and 45% to the District).
- The Entity must have credits already purchased in the New Mexico Water Bank equal to the amount of water it intends to divert in one year. The maximum amount of credits New Mexico can accumulate in the Water Bank is 70,000 acre-feet.
- There are minimum monthly flows that must be bypassed (for the benefit of downstream users in Arizona) before any diversion can occur in New Mexico.
- No water shall be diverted in New Mexico in any calendar year until San Carlos Reservoir has at least 30,000 acre-feet of storage. (This storage limit amount can be re-evaluated periodically).

**For more specific information on ALL of the requirements of the CUFA,
please see the full text and exhibits to the CUFA found at:**

http://www.ose.state.nm.us/Basins/Colorado/AWSA/Legal_Documents/2005_CUFA.pdf



For more information, visit www.NMUnitEIS.com

July 2018



Principles, Requirements, and Guidelines

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement

As part of the evaluation of a New Mexico Unit of the Central Arizona Project (CAP), the Bureau of Reclamation will conduct an analysis of the alternatives consistent with the federal Principles, Requirements and Guidelines for Water and Land Related Resources Implementation Studies (PR&Gs). This fact sheet briefly describes the PR&Gs and its application to the New Mexico Unit Environmental Impact Statement (EIS) process.

Description and purpose of PR&G

The PR&Gs are a policy framework for analyzing federal investments in water resources.

The purpose of a PR&G analysis is to provide information to help maximize public benefits with appropriate consideration of costs.

The objective under the PR&Gs is to promote guiding principles that are to be used to develop and evaluate water resource development alternatives. The guiding principles include: *healthy and resilient ecosystems; sustainable economic development; floodplains; public safety; environmental justice; and a watershed approach.*

A PR&G analysis uses an ecosystem services and watershed-based approach to evaluate public benefits and costs. Public benefits take into account environmental, economic, and social goals. The analysis includes monetary and non-monetary effects, allows for consideration of both quantified and unquantified measures, and must reflect the tradeoffs that exist between competing goals. Essentially, this is a way to compare benefits and drawbacks of different actions being considered.

Agency Guidance Documents

The PR&Gs include the following three components:

1. Principles and Requirements for Federal Investments in Water Resources (P&Rs, March 2013) – Overarching concepts that the Federal Government seeks to achieve through policy implementation and requirements for inputs into analysis of federal investment alternatives.
2. Interagency Guidelines (IGs, December 2014) – More detailed guidance for all effected Federal agencies for determining the applicability of the P&Rs.
3. Department of Interior Agency Specific Procedures for Implementing the Council on Environmental Quality's Principles, Requirements, and Guidelines for Water and Land related Resources Implementation Studies (707 DM 1 Handbook, November 10, 2015) – Agency specific guidance.

Relation to the NEPA process

PR&G analyses supplement and are integrated into the National Environmental Policy Act (NEPA) process. It provides additional information for consideration by the decision maker responsible for a Record of Decision (Secretary of the Interior).

For more information, visit www.NMUnitEIS.com



Analytical requirements specific to a PR&G analysis (but not necessarily a NEPA analysis) include:

1. A PR&G analysis must identify, describe and consider areas of risk and uncertainty for potential investments in water resources.
2. Under the PR&Gs, Federal investments are evaluated with respect to the Federal Objective and Guiding Principles, which may include factors in addition to those identified in the purpose and need for the proposed action contained in an EIS.
3. Both the PR&Gs and NEPA require consideration of a reasonable range of alternatives. However, the PR&Gs specify that “nonstructural alternatives or plans” and “an alternative plan, strategy, or action that is preferred by a local interest with oversight or implementation responsibilities be among the alternatives considered.”
4. The PR&Gs also require a transparent comparison of the effects of alternatives for their contribution to the Federal Objective and each of the Guiding Principles using an ecosystem services approach and including a discussion of tradeoffs in documentation provided in display and narrative form.

PR&Gs applied to New Mexico Unit alternatives

The PR&G analyses will be performed by Bureau of Reclamation staff and will provide a comprehensive evaluation of the economic benefits, and the economic and financial impacts of potential alternatives for the New Mexico Unit of the CAP. The economic analyses will include an evaluation of Benefits and Costs, Regional Impact Analysis, Cost Effectiveness Analysis including Incremental Cost Analysis, and Break-Even Analysis.

Bureau of Reclamation staff will evaluate the following assuming the primary project purpose will be irrigation water supply:

1. The value of water supplies for irrigation
2. The benefits and costs related to ecosystem services including environmental and social objectives
3. Project affordability/financial viability of alternatives
4. Regional economic and fiscal impacts of alternatives relative to No Action
5. Trade-offs associated with alternatives including No Action

PR&G Analyses Products

The primary deliverable will be an Appendix to the New Mexico Unit EIS. This appendix will be a stand-alone document describing data sources, methods of analysis, and estimates of economic, financial, and resource effects as required for a PR&G analysis. The appendix will provide the information necessary for evaluating impacts and their incorporation into the EIS.

For more information, visit www.NMUnitEIS.com



Submitting Your Comments

New Mexico Unit of the Central Arizona Project
Environmental Impact Statement

What Is Scoping?

The scoping process is an opportunity for the public to identify topics to be covered in the New Mexico Unit of the Central Arizona Project, Environmental Impact Statement (EIS) and to provide recommendations to Reclamation and the New Mexico Interstate Stream Commission. Your input may help identify the following:

- Relevant topics to be analyzed in the EIS
- Potential alternatives to the proposed action for the New Mexico Unit of the Central Arizona Project
- Potential mitigation measures for anticipated impacts of the New Mexico Unit of the Central Arizona Project
- People or organizations who are interested in the EIS process
- Data gaps and information needs
- New data or information

Why Public Comments Are Important

Public comment periods offer the opportunity for you to be involved in the decision-making process and to offer your thoughts on alternative ways to implement the project. This is an opportunity for you to offer data that the agencies can use in their analysis of the environmental effects of the proposed alternatives, as well as possible mitigation of potential harmful effects of such actions.

The National Environmental Policy Act "... is intended to help public officials make decisions that are based on the understanding of environmental consequences..." (40 Code of Federal Regulations, Subpart 1501[e]). To achieve this, the EIS considers the effects of the proposed federal actions on economic, cultural, and natural resources in the project area. Citizens such as you often have valuable information about places and resources they consider important and the potential effects proposed federal actions may have on those places and resources.

Making the Most of Your Comments

While every comment received will be considered, the most useful ones are those that provide *specific, detailed information* about the effects of the proposed project and issues that should be analyzed in the EIS. For example, if a comment states that an action will have "significant environmental effects," further explanation of the relevant causes and environmental effects will help us refine and focus our alternatives and impact analysis. Comments that are solution oriented and provide specific examples will be the most helpful. Comments that contribute to developing alternatives that address the purpose and need for the action will also be appreciated. (Please note that commenting is not a form of "voting" on the New Mexico Unit of the Central Arizona Project.)

Example of a Helpful Comment	Example of an Unhelpful Comment
The analysis needs to consider the impacts of land acquisition on local communities and economies.	Stop taking our land!

For more information, visit www.NMUnitEIS.com

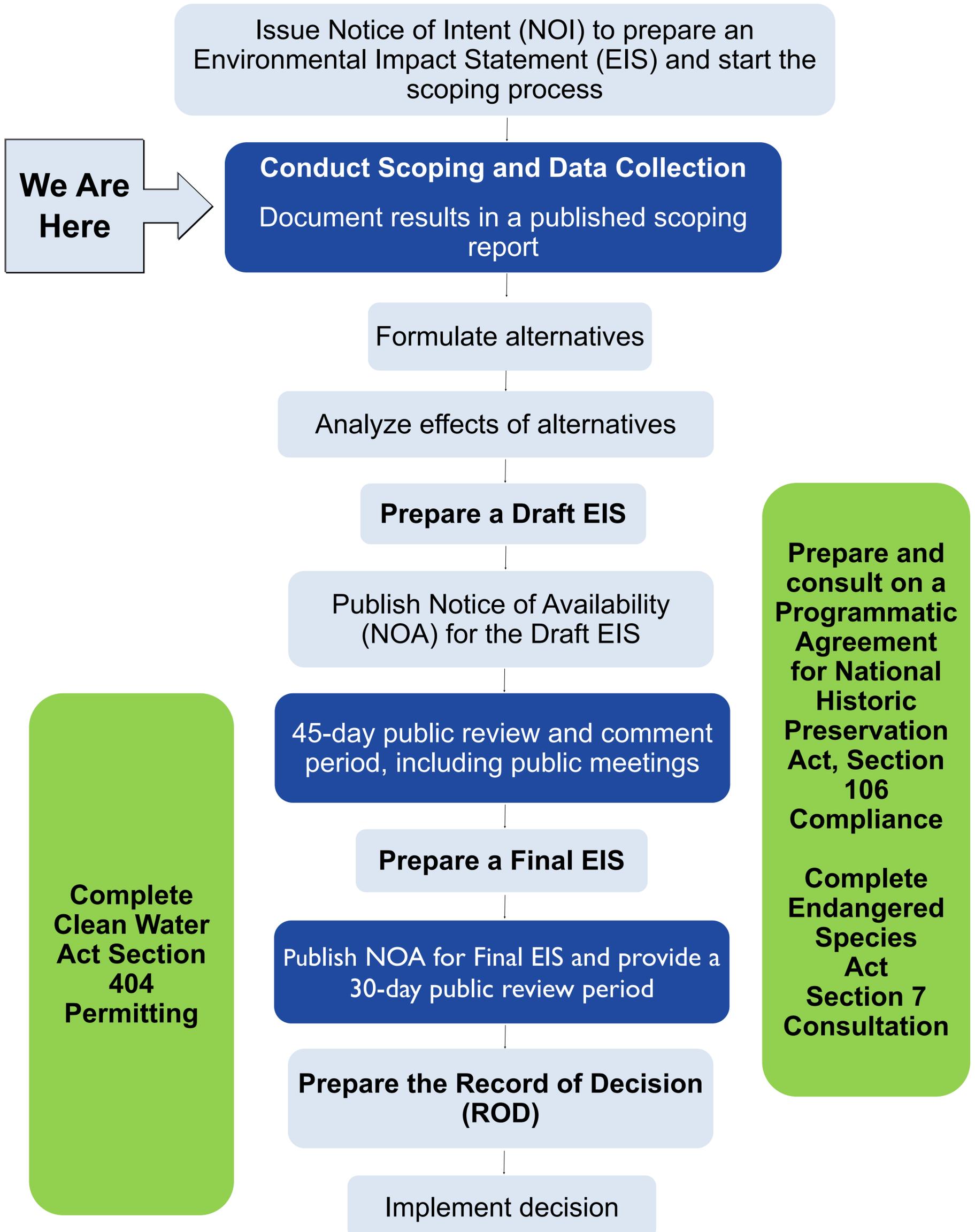


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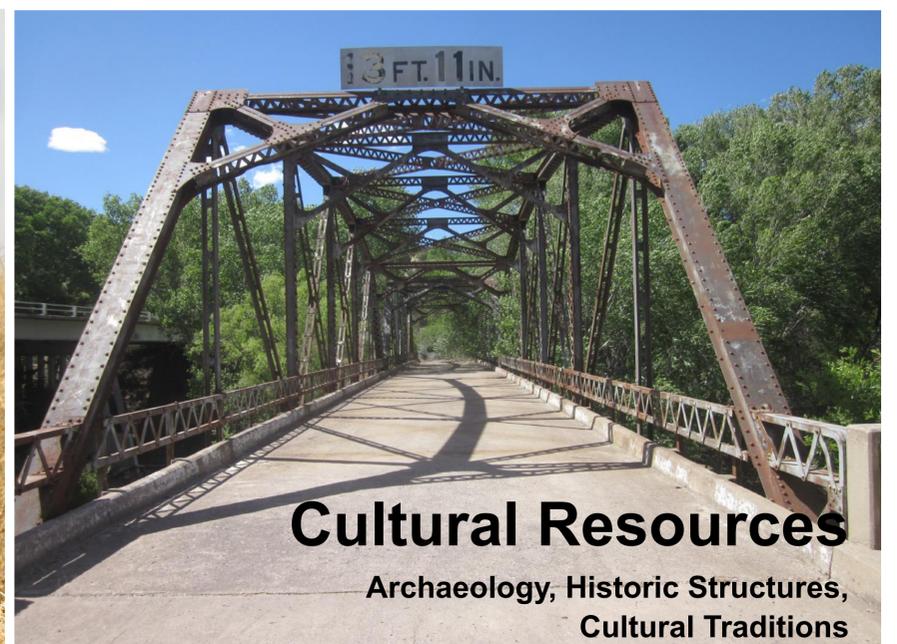


NEPA Planning Process*

*Public involvement opportunities shown in **dark blue**.
Parallel regulatory processes shown in **green**.



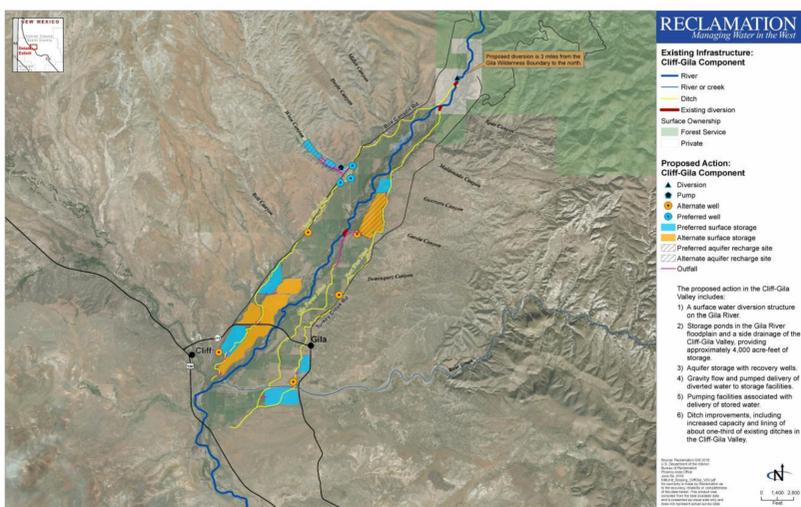
Preliminary Resource Topics for Analysis



Endangered Species Act Requirements

The Endangered Species Act provides substantive protections to any species listed as endangered or threatened. Key among these protections are the prohibition against any activities that would “take” a listed species, and prohibition against any federal agency activity that might jeopardize a listed species or adversely modify its critical habitat. Federal agencies must develop programs to conserve and recover listed species and must cooperate with states and foreign governments to meet the purpose of the Act. The tables below identify the federally listed threatened and endangered species present in the vicinity of each of the three proposed action components.

Cliff-Gila Component



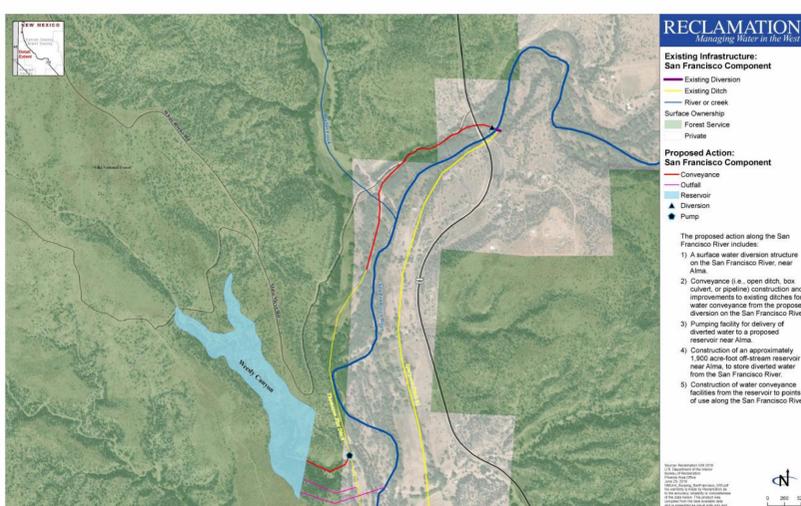
Group	Name	Status	Critical Habitat Present
Amphibians	Chiricahua leopard frog (<i>Lithobates (Rana) chiricahuensis</i>)	Threatened	Yes
Birds	Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	Proposed
	Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Yes
Fishes	Loach minnow (<i>Tiaroga cobitis</i>)	Endangered	Yes
	Spikedace (<i>Media fulgida</i>)	Endangered	Yes
	Gila topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	No
	Gila chub (<i>Gila intermedia</i>)	Endangered	Yes
Reptiles	Northern Mexican gartersnake (<i>Thamnophis eques megalops</i>)	Threatened	Yes
	Narrow-headed gartersnake (<i>Thamnophis rufipunctatus</i>)	Threatened	Yes

Viriden Component



Group	Name	Status	Critical Habitat Present
Amphibians	Chiricahua leopard frog (<i>Lithobates (Rana) chiricahuensis</i>)	Threatened	Yes
Birds	Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	Proposed
	Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Yes
Fishes	Loach minnow (<i>Tiaroga cobitis</i>)	Endangered	Yes
	Spikedace (<i>Media fulgida</i>)	Endangered	Yes
	Gila topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	No
Reptiles	Northern Mexican gartersnake (<i>Thamnophis eques megalops</i>)	Threatened	Yes
	Narrow-headed gartersnake (<i>Thamnophis rufipunctatus</i>)	Threatened	Yes

San Francisco Component

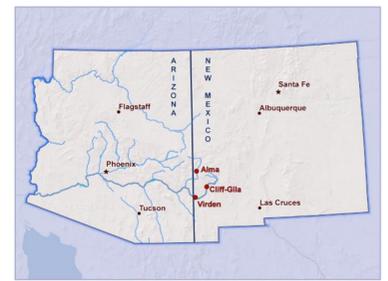


Group	Name	Status	Critical Habitat Present
Amphibians	Chiricahua leopard frog (<i>Lithobates (Rana) chiricahuensis</i>)	Threatened	Yes
Birds	Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	Proposed
	Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Yes
Fishes	Loach minnow (<i>Tiaroga cobitis</i>)	Endangered	Yes
	Spikedace (<i>Media fulgida</i>)	Endangered	Yes
	Gila topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	No
Reptiles	Narrow-headed gartersnake (<i>Thamnophis rufipunctatus</i>)	Threatened	Yes
Mammals	Mexican wolf (<i>Canis lupus baileyi</i> ; experimental)	Endangered	No

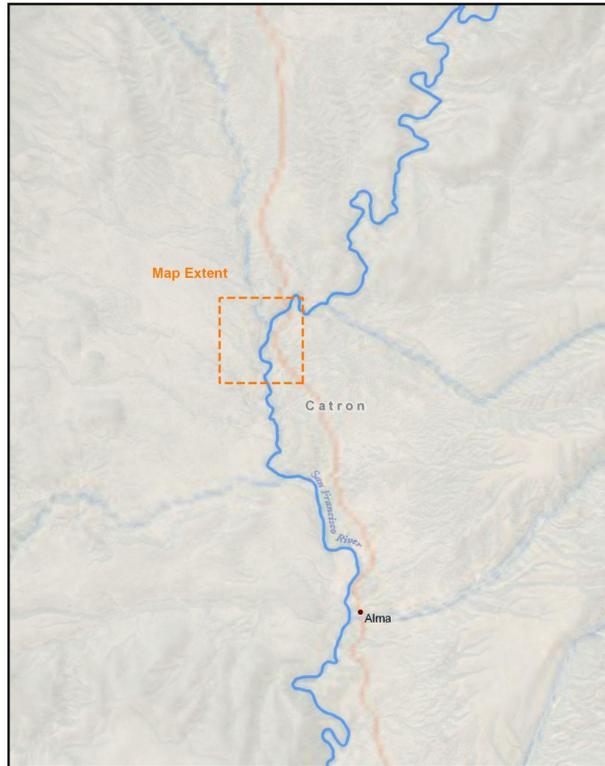
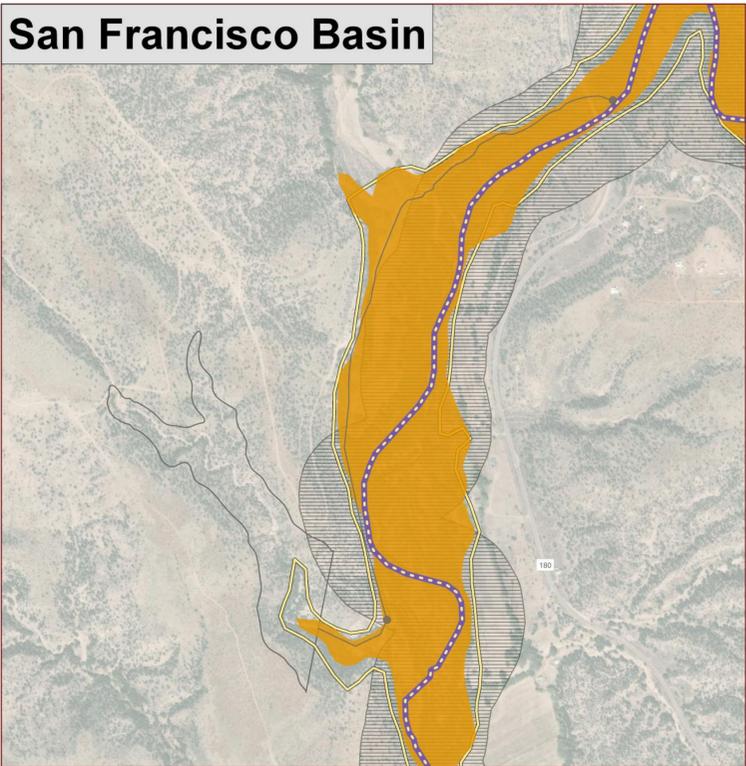
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Proposed Construction		USFWS Critical Habitat			
●	Diversion, Pump, Well	-----	Spikedace	■	Southwestern Willow Flycatcher
—	Canal, Pipe	-----	Loach minnow	▨	Narrow-headed gartersnake
□	Water Storage Area	-----	Yellow-billed Cuckoo	■	Northern Mexican gartersnake



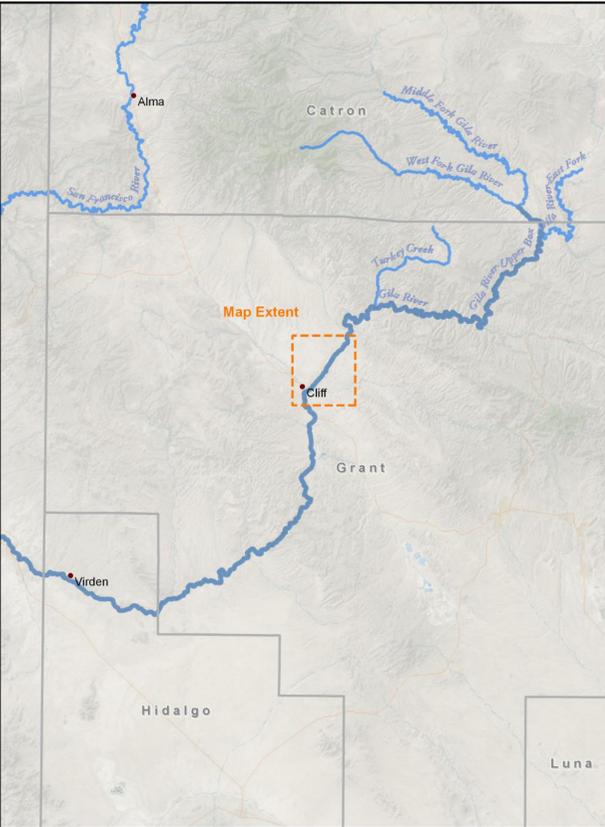
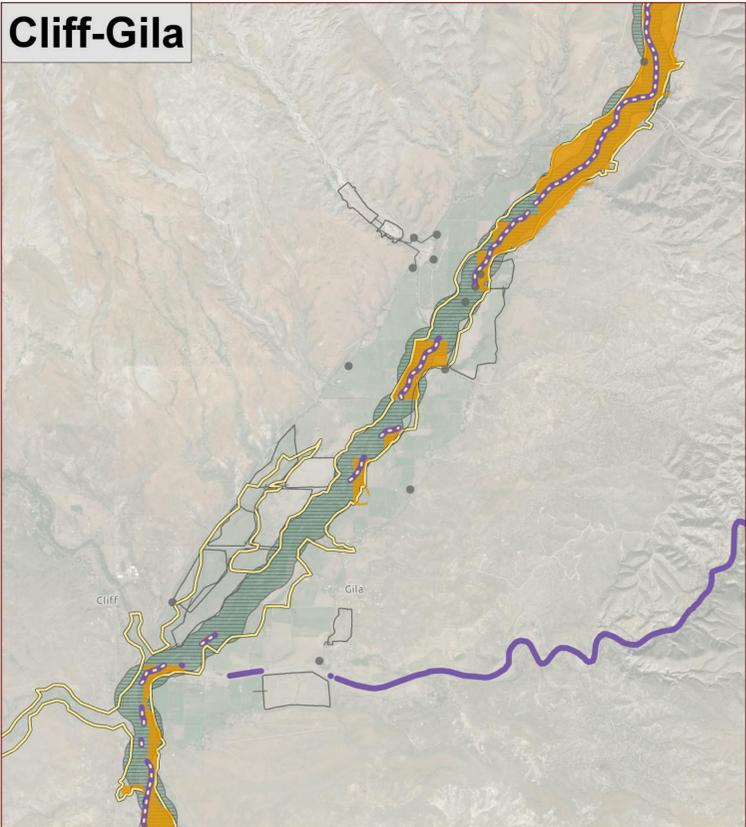
San Francisco Basin



Listed Species in Catron County

Group	Name	Status	Critical Habitat Present
Amphibian	Chiricahua leopard frog (<i>Lithobates (Rana) chiricahuensis</i>)	Threatened	Yes
Bird	Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	Proposed
	Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Yes
Fish	Loach minnow (<i>Tiaroga cobitis</i>)	Endangered	Yes
	Spikedace (<i>Media fulgida</i>)	Endangered	Yes
	Gila topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	No
Reptile	Narrow-headed gartersnake (<i>Thamnophis rufipunctatus</i>)	Threatened	Yes
Mammal	Mexican wolf (<i>Canis lupus baileyi</i>)	Endangered	No

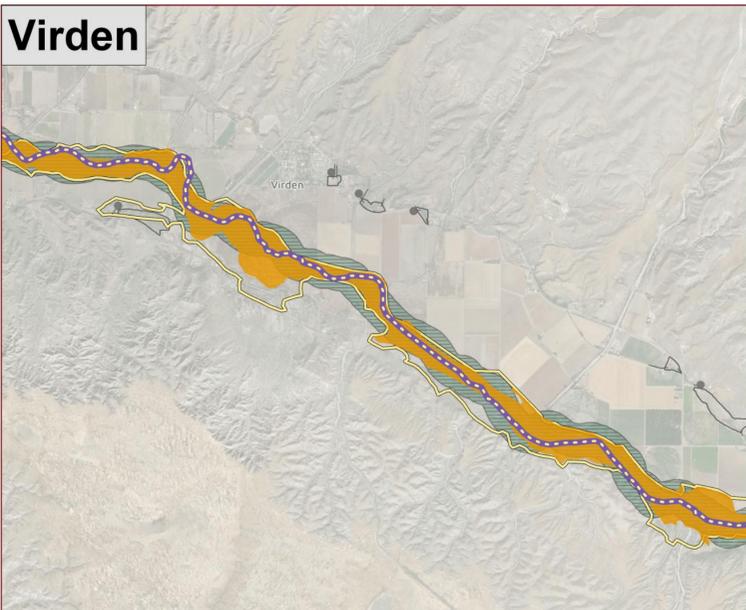
Cliff-Gila



Listed Species in Grant County

Group	Name	Status	Critical Habitat Present
Amphibian	Chiricahua leopard frog (<i>Lithobates (Rana) chiricahuensis</i>)	Threatened	Yes
Bird	Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	Proposed
	Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Yes
Fish	Loach minnow (<i>Tiaroga cobitis</i>)	Endangered	Yes
	Gila topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	No
	Spikedace (<i>Media fulgida</i>)	Endangered	Yes
	Gila chub (<i>Gila intermedia</i>)	Endangered	Yes
Reptile	Northern Mexican gartersnake (<i>Thamnophis eques megalops</i>)	Threatened	Yes
	Narrow-headed gartersnake (<i>Thamnophis rufipunctatus</i>)	Threatened	Yes

Virden



Listed Species in Hidalgo County

Group	Name	Status	Critical Habitat Present
Amphibian	Chiricahua leopard frog (<i>Lithobates (Rana) chiricahuensis</i>)	Threatened	Yes
Bird	Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Threatened	Proposed
	Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Yes
Fish	Loach minnow (<i>Tiaroga cobitis</i>)	Endangered	Yes
	Spikedace (<i>Media fulgida</i>)	Endangered	Yes
	Gila Topminnow (<i>Poeciliopsis occidentalis</i>)	Endangered	No
Reptile	Northern Mexican gartersnake (<i>Thamnophis eques megalops</i>)	Threatened	Yes
	Narrow-headed gartersnake (<i>Thamnophis rufipunctatus</i>)	Threatened	Yes

Area of Interest



For more information, visit www.NMUnitEIS.com





Existing Infrastructure: Cliff-Gila Component

- River
- River, creek, or existing canal
- Ditch
- Existing diversion
- Surface Ownership
 - Forest Service
 - Private

Proposed Action: Cliff-Gila Component

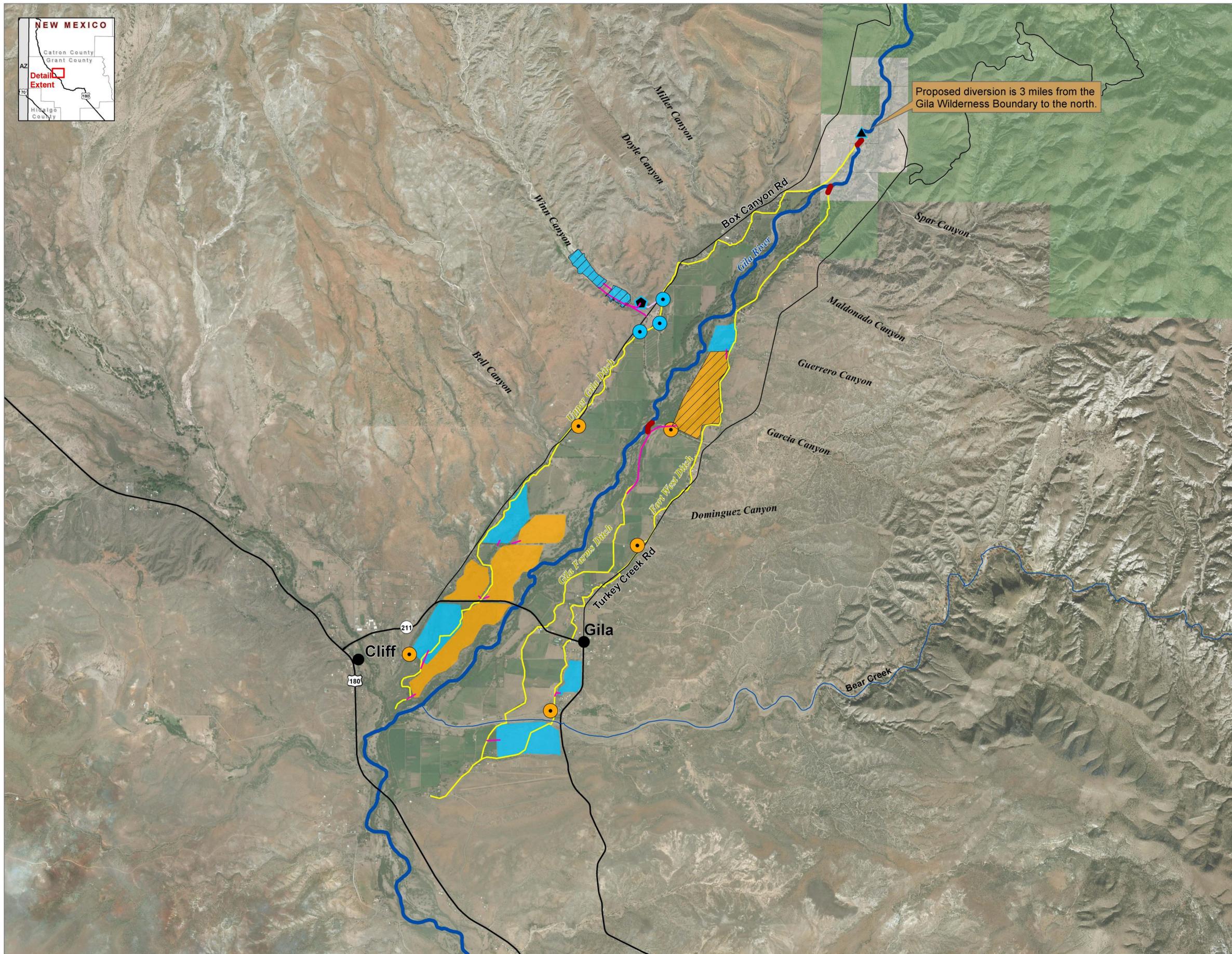
- Diversion
- Pump
- Alternate well
- Preferred well
- Preferred surface storage
- Alternate surface storage
- Preferred aquifer recharge site
- Alternate aquifer recharge site
- Outfall

- The proposed action in the Cliff-Gila Valley includes:
- 1) A surface water diversion structure on the Gila River.
 - 2) Storage ponds in the Gila River floodplain and a side drainage of the Cliff-Gila Valley, providing approximately 4,000 acre-feet of storage.
 - 3) Aquifer storage with recovery wells.
 - 4) Gravity flow and pumped delivery of diverted water to storage facilities.
 - 5) Pumping facilities associated with delivery of stored water.
 - 6) Ditch improvements, including increased capacity and lining of about one-third of existing ditches in the Cliff-Gila Valley.

Source: Reclamation GIS 2018
 U.S. Department of the Interior
 Bureau of Reclamation
 Phoenix Area Office
 June 29, 2018
 NMUnit_Scoping_CliffGila_V03.pdf
 No warranty is made by Reclamation as to the accuracy, reliability or completeness of the data herein. This product was compiled from the best available data and is presented as visual aide only and does not represent actual survey data.



0 1,400 2,800
 Feet





Existing Infrastructure: Virden Component

- River
- Existing canal
- Existing diversion

Proposed Action: Virden Component

- Pump
- Preferred surface storage
- Alternate surface storage
- Outfall

The proposed action in the Virden Valley includes:

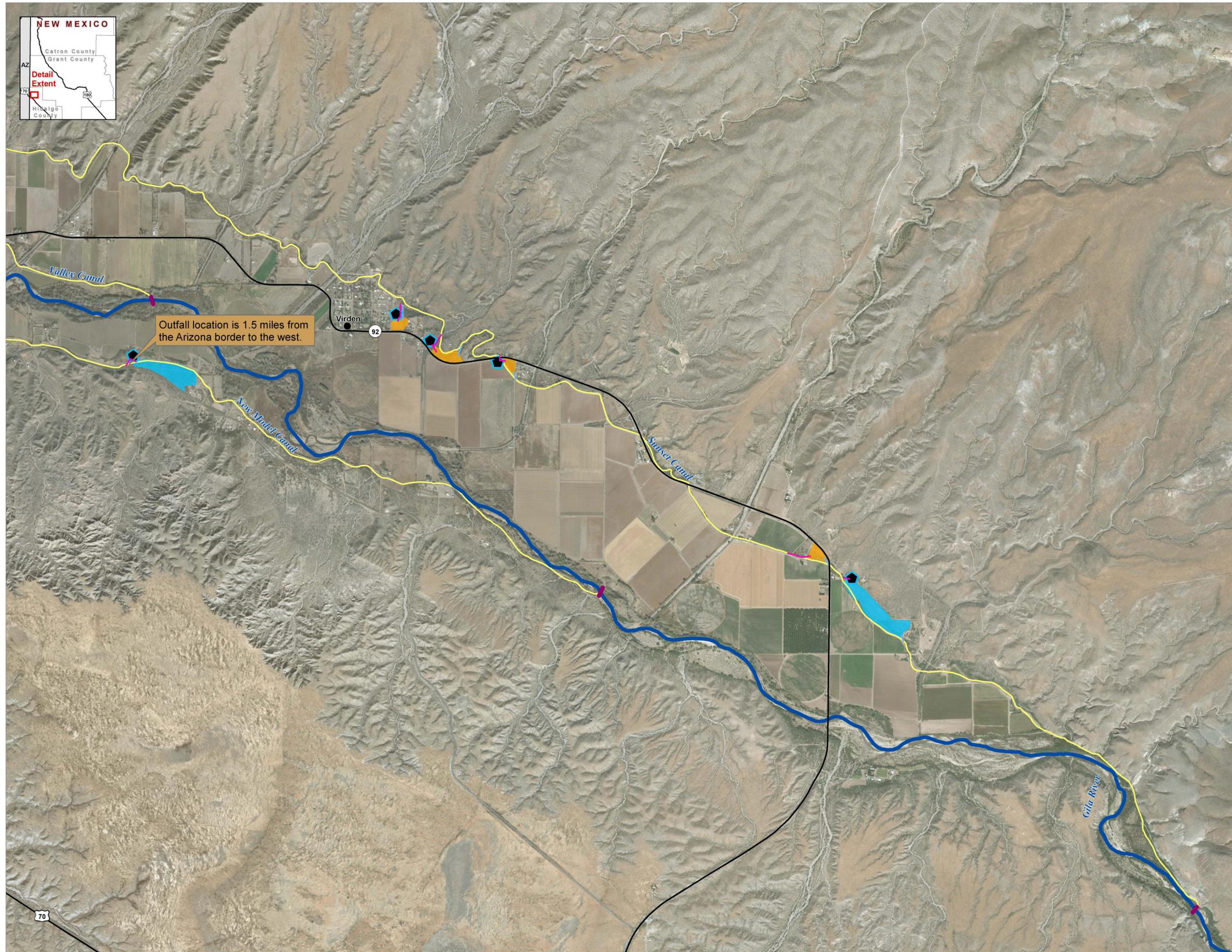
- 1) Surface storage ponds in the Gila River floodplain or side channels, providing approximately 500 acre-feet of storage.
- 2) Improvements to existing canals for water conveyance.
- 3) Pumping facilities associated with delivery of stored water.
- 4) Existing Gila River diversion structures would be used.

Outfall location is 1.5 miles from the Arizona border to the west.

Source: Reclamation GIS 2018
U.S. Department of the Interior
Bureau of Reclamation
Phoenix Area Office
June 28, 2018
NMUnit_Scoping_Virden_V03.pdf
No warranty is made by Reclamation as to the accuracy, reliability or completeness of the data herein. This product was compiled from the best available data and is presented as visual aide only and does not represent actual survey data.



0 690 1,380
Feet





**Existing Infrastructure:
San Francisco Component**

-  Existing Diversion
-  Existing Ditch
-  River or creek

Surface Ownership

-  Forest Service
-  Private

**Proposed Action:
San Francisco Component**

-  Conveyance
-  Outfall
-  Reservoir
-  Diversion
-  Pump

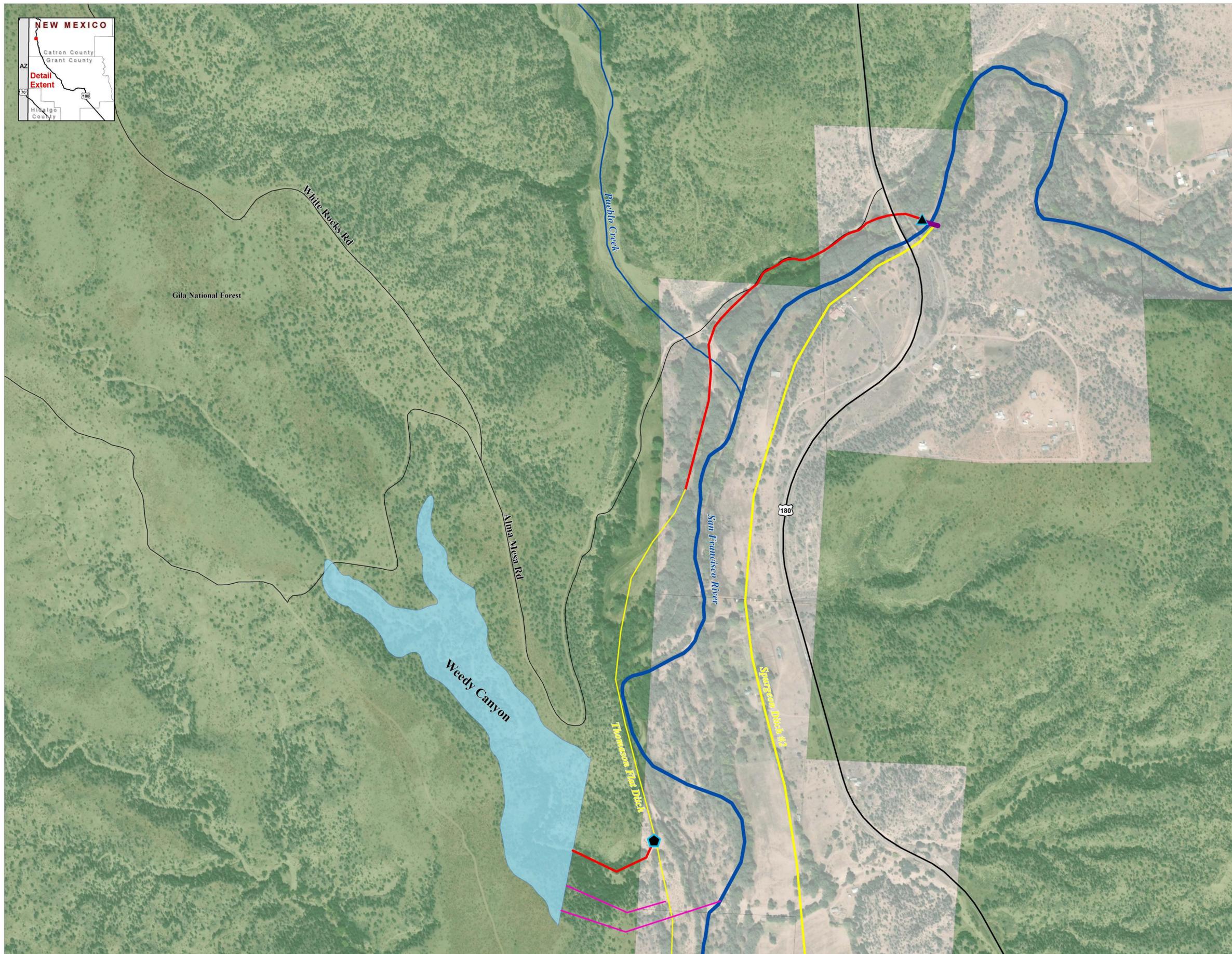
The proposed action along the San Francisco River includes:

- 1) A surface water diversion structure on the San Francisco River, near Alma.
- 2) Conveyance (i.e., open ditch, box culvert, or pipeline) construction and improvements to existing ditches for water conveyance from the proposed diversion on the San Francisco River.
- 3) Pumping facility for delivery of diverted water to a proposed reservoir near Alma.
- 4) Construction of an approximately 1,900 acre-foot off-stream reservoir near Alma, to store diverted water from the San Francisco River.
- 5) Construction of water conveyance facilities from the reservoir to points of use along the San Francisco River.

Source: Reclamation GIS 2018
U.S. Department of the Interior
Bureau of Reclamation
Phoenix Area Office
June 29, 2018
NMUnit_Scoping_SanFrancisco_V03.pdf
No warranty is made by Reclamation as to the accuracy, reliability or completeness of the data herein. This product was compiled from the best available data and is presented as visual aide only and does not represent actual survey data.



0 260 520
Feet

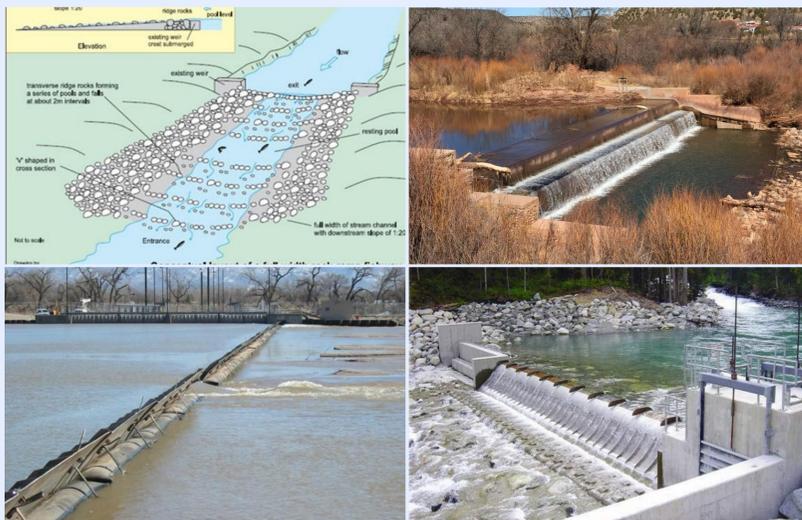


I. Diversion

Proposed diversion includes:

- ◆ A surface water diversion structure on the Gila River, in the Cliff-Gila Valley
- ◆ A surface water diversion structure on the San Francisco River, near Alma

Examples of the diversion structures that may be used are below.

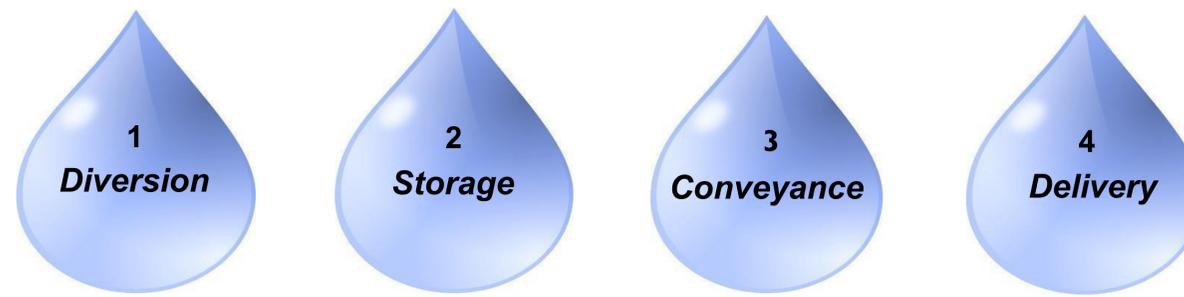


The proposed project does NOT include a storage dam or reservoir on the mainstem of the Gila River.



New Mexico Unit of the Central Arizona Project

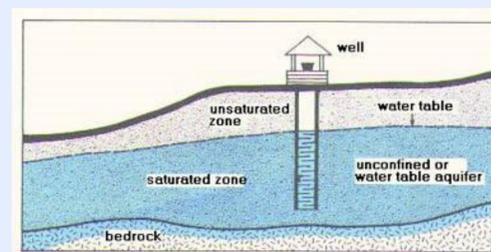
- Project Components -



2. Storage

Proposed storage includes:

- ◆ Storage ponds in the Gila River floodplain and a side drainage of the Cliff-Gila Valley, providing approximately 4,000 acre-feet of storage
- ◆ Aquifer storage with recovery wells in the Cliff-Gila Valley
- ◆ Surface storage ponds in the Gila River floodplain or side channels, providing approximately 500 acre-feet of storage in the Virden Valley
- ◆ Construction of an approximately 1,900 acre-foot off-stream reservoir near Alma, to store diverted water from the San Francisco River



For more information, visit www.NMUnitEIS.com

3. Conveyance

Proposed conveyance includes:

- ◆ Ditch improvements, including increased capacity and lining a portion of existing ditches in the Cliff-Gila Valley
- ◆ Improvements to existing canals in the Virden Valley
- ◆ Conveyance construction and improvements to existing ditches for water conveyance from the proposed diversion on the San Francisco River
- ◆ New water conveyance facilities from the reservoir to points of use along the San Francisco River



4. Delivery

Proposed delivery includes:

- ◆ Gravity flow and pumped delivery of diverted water to storage facilities in the Cliff-Gila Valley
- ◆ Pumping facilities associated with delivery of stored water in the Virden Valley
- ◆ Pumping facility for delivery of diverted water to a proposed reservoir near Alma



How to Submit Your Comments

U.S. Postal Service to:

Phoenix Area Office,
Bureau of Reclamation
(ATTN: NM Unit EIS)
6150 West Thunderbird Road
Glendale, AZ 85306

Email: NMUnitEIS@emp.si.com
(please use NM Unit EIS as email subject)

Online: www.NMUnitEIS.com

In Person at Scoping Meeting



Comments should be submitted by **July 20, 2018.**

