



— BUREAU OF —  
RECLAMATION

# DRAFT Environmental Assessment

**GSC Farm – Queen Creek Water Transfer Project, Arizona**  
**Interior Region 8: Lower Colorado Basin**



**U.S. Department of the Interior**  
**Bureau of Reclamation**  
**Interior Region 8: Lower Colorado Basin**  
**Phoenix Area Office**  
**Glendale, Arizona**

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## **Mission Statements**

The Department of the Interior (DOI) 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.

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## List of Acronyms and Abbreviations

AGFD	Arizona Game and Fish Department
ADWR	Arizona Department of Water Resources
AF	acre-feet
AFY	acre-feet per year
BCPA	Boulder Canyon Project Act
AWSA	Arizona Water Settlements Act
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CAGRDR	Central Arizona Groundwater Replenishment District
CAP	Central Arizona Project
CAWCD	Central Arizona Water Conservation District
CC&R	Covenants, Conditions and Restrictions
CDP	Census-designated Place
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
CVIDD	Cibola Valley Irrigation and Drainage District
DOI	Department of the Interior
EA	Environmental Assessment
EID	Colorado River Water Entitlement to Ehrenberg Improvement District
EIS	Environmental Impact Statement
E.O.	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FONSI	finding of no significant impact
FPPA	Farmland Protection Policy Act
GSC Farm	GSC Farm, LLC
GSF	Groundwater Savings Facility
HDMS	Heritage Data Management System
ID	Interdisciplinary
IPaC	Information, Planning, and Conservation System
LBDCP	Lower Basin Drought Contingency Plan
LCR MSCP	Lower Colorado River Multi-Species Conservation Program
NEPA	National Environmental Policy Act
NMIDD	New Magma Irrigation and Drainage District
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
PEC P09	Transfers and Conversion of Project Water
PVID	Palo Verde Irrigation District
Reclamation	Bureau of Reclamation

RM	river mile
ROC	Record of Conversation
RWCD	Roosevelt Water Conservation District
Secretary	U.S. Secretary of the Interior
QCID	Queen Creek Irrigation District
Queen Creek	Town of Queen Creek
U.S.	United States
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

# 1 Introduction, Background, Purpose, and Need

## 1.1 Introduction

The United States Department of the Interior (DOI), Bureau of Reclamation (Reclamation), Lower Colorado Basin, Interior Region 8 has prepared this environmental assessment (EA) to analyze the environmental impacts of and potential alternatives to the proposed transfer of Arizona fourth priority Colorado River water entitlement (Water Transfer) from GSC Farm, LLC (GSC Farm), located in La Paz County, to the Town of Queen Creek (Queen Creek), in Maricopa and Pinal counties, Arizona, through the Central Arizona Project (CAP; the Proposed Action or Project).

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code 4321 et seq.), the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 Code of Federal Regulations (CFR) 1500–1508)<sup>1</sup>, the Department of the Interior's NEPA regulations (43 CFR 46), and other relevant federal and state laws and regulations.

## 1.2 Background

### 1.2.1 Authorizations

In the lower Colorado River Basin, the United States Secretary of the Interior (Secretary) is vested with the responsibility for managing the mainstream waters of the lower Colorado River from Lee Ferry, Arizona to the Southerly International Boundary between the United States (U.S.) and Mexico. Reclamation's Lower Colorado Basin Region performs the Secretary's responsibilities for oversight and management of the lower Colorado River. Components of the Law of the River<sup>2</sup> which are applicable to the Lower Colorado Basin Region's review of proposed water contract actions are identified as follows:

- **Boulder Canyon Project Act of 1928 (BCPA)**
  - Apportioned mainstream Colorado River water to Arizona, California, and Nevada.
  - Authorized the Secretary to contract for storage and delivery of Colorado River water and prohibited use of Colorado River water except through such contract with the Secretary.
  - Authorized representatives of the states to act in an advisory capacity to and in cooperation with the Secretary.

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<sup>1</sup> 43 CFR 55978, as amended, 1978-2020. Reclamation received the project recommendation prior to the NEPA regulatory revisions that became effective on September 14, 2020.

<sup>2</sup> The Law of the River comprises operating criteria, regulations, administrative decisions, federal statutes, interstate compacts, court decisions and decrees, an international treaty, and contracts with the Secretary.

- **Contract for the Delivery of Water, dated February 9, 1944, between the United States and the State of Arizona (1944 Contract)**
  - Established a United States annual delivery obligation to the State of Arizona, or agencies or water users therein, from storage in Lake Mead to points of diversion on the mainstream of the Colorado River approved by the Secretary, for so much water as may be necessary for the beneficial consumptive use for irrigation and domestic uses in Arizona of a maximum of 2.8 million acre-feet (AF).
  - Subjected the United States annual delivery obligation to the availability of water for use in Arizona under the Colorado River Compact of 1922 and the BCPA and the purposes served by Hoover Dam as provided in Section 1 of the BCPA.

Reclamation Manual, *Delegations of Authority* recognizes the Secretary’s unique responsibilities on the lower Colorado River and that the Lower Colorado Basin Regional Director performs such responsibilities on behalf of the Secretary. In addition to the authority delegated by the Commissioner of Reclamation to all regional directors to negotiate, approve, execute, and administer specific new, renewed, supplementary, or amendatory water contracts in Paragraph 4. N., Program, Economics, Revenues, and Contracts, Paragraph 4. N. (4)(e) also delegates to the Lower Colorado Basin Regional Director authority to execute permanent contracts pursuant to the BCPA and the Consolidated Decree of the U.S. Supreme Court in *Arizona v. California* (2006) (Consolidated Decree) and permanent contracts for use in Arizona not to exceed 127,000 AF per year (AFY) pursuant to the 1944 Contract following consultations with the Arizona Department of Water Resources (ADWR).

Reclamation works with state, local, and tribal governments, and water users to facilitate water transfers within the framework of relevant legal authority. Reclamation Manual Policy, *Transfers and Conversions of Project Water* (PEC P09) provides instructions regarding the transfer of Reclamation project water to a new user or place of use. PEC P09 provides that Reclamation may approve a proposed water transfer if the proposed action:

- Complies with Reclamation law and other applicable federal law.
- Does not impair the Secretary’s trust obligation to Native Americans.
- Complies with state, tribal, and local laws when applicable.
- Protects the federal interest.
- Does not impair Reclamation’s ability to protect Reclamation projects.

When a non-federal Arizona fourth priority Colorado River water entitlement holder desires to transfer its entitlement, Arizona state law requires that they cooperate, confer with, and obtain the advice of the Director of ADWR in accordance with A.R.S. § 45-107(D). ADWR evaluates these transfers pursuant to its “Substantive Policy Statement – Policy and Procedure for Transferring an Entitlement of Colorado River Water-CR11” dated September 4, 2020 (ADWR Policy), as amended. Pursuant to A.R.S. § 45-107(A), ADWR consults, advises and cooperates with the Secretary regarding the proposal.

Section 103 of the Arizona Water Settlements Act (AWSA), Pub. L. 108-451 (Dec. 10, 2004), provides that, “In accordance with the CAP repayment contract<sup>3</sup>, the Central Arizona Project may be used to transport Non-Project Water for 1) domestic, municipal, fish and wildlife, and industrial purposes; and 2) any purpose authorized under the Colorado River Basin Project Act (43 U.S.C. 1501 et seq.)”

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<sup>3</sup> The CAP or Master Repayment Contract is the *Contract Between the United States and the Central Arizona Water Conservation District for Delivery of Water and Repayment of Costs of the Central Arizona Project, Contract No. 14-06-W-245* (Amendment No. 1, dated December 1, 1988), as it may be amended or supplemented.



Section 8.17 of the Master Repayment Contract reserves rights to the United States to have Non-Project Water carried by the CAP system for Indian and non-Indian uses and is often referred to as an “8.17 Wheeling Contract.”<sup>4</sup> For Queen Creek to take delivery of a transferred Arizona fourth priority Colorado River water entitlement, it would need to enter into an 8.17 Wheeling Contract with Reclamation to transport the acquired Arizona fourth priority Colorado River water through the CAP system.<sup>5</sup>

On December 17, 2018, GSC Farm and Queen Creek entered into a Purchase and Transfer Agreement for Mainstream Colorado River Water Entitlement providing for the assignment and transfer of GSC Farm’s Arizona fourth priority Colorado River water entitlement to Queen Creek to aid in providing resiliency and stability for Queen Creek’s long-term municipal water needs. GSC Farm has an Arizona fourth priority Colorado River water entitlement<sup>6</sup> to divert up to 2,913.3 AFY for irrigation use within GSC Farm’s contract service area. GSC Farm estimated its total consumptive use<sup>7</sup> of its Arizona fourth priority Colorado River water entitlement at 2,083.01 AFY. GSC Farm’s Arizona fourth priority Colorado River water entitlement is authorized under the Contract for the Delivery of Colorado River Water for Use in Arizona, between GSC Farm and the United States of America, Contract No. 13-XX-30-W0571, dated December 23, 2013, and amended by Amendment No. 1 dated December 3, 2014 (collectively the GSC Contract). GSC Farm’s Arizona fourth priority Colorado River water entitlement is presently used to irrigate approximately 485 acres of farmland owned by GSC Farm located within the Cibola Valley Irrigation and Drainage District (CVIDD) in La Paz County, Arizona.<sup>8</sup> The GSC Contract provides, in Section 2.25, that “GSC may eventually contemplate conversion of its Irrigation Use entitlement to Domestic Use within its existing contract service area or to a new place of use, either of which will require approval from Reclamation and consultation with ADWR,” and in Section 22 that “Any...Transfer of use of GSC's Entitlement must be approved in writing by the Contracting Officer before such...Transfer can become effective.”

On August 1, 2019, GSC Farm and Queen Creek submitted to ADWR a request for consultation for the proposed Water Transfer pursuant to A.R.S. § 45-107(D). On September 4, 2020, ADWR recommended approval of the partial assignment and transfer of 1,078.01 AFY of GSC Farm’s Arizona fourth priority Colorado River water entitlement to Queen Creek on a consumptive use basis. ADWR issued a supplement to its September 4, 2020, recommendation on January 20, 2021, changing its recommended transferrable volume on a consumptive use basis to 2,033.01 AFY of Arizona fourth priority Colorado River water to Queen Creek and recommending that GSC Farm retain 50 AFY of consumptive use (69.93 AFY diversion entitlement) of its Arizona fourth priority Colorado River water entitlement for future use on the land owned by GSC Farm. ADWR’s recommendation of the Water Transfer was conditioned on the successful and permanent completion of the covenants and deed

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<sup>4</sup> Section 8.17 Wheeling Contracts also are implemented in accordance with the Central Arizona Project System Use Agreement Between the United States and the Central Arizona Water Conservation District, dated February 2, 2017, as it may be amended or supplemented (CAP System Use Agreement).

<sup>5</sup> Pursuant to Section 8.18 of the Master Repayment Contract, the Central Arizona Water Conservation District (CAWCD) may enter into a wheeling agreement with an entity such as Queen Creek that desires to convey Non-Project Water through the CAP system. In the future, Reclamation may elect to assign the administrative responsibilities for the 8.17 Wheeling Contract to CAWCD by requesting that CAWCD and Queen Creek enter into a “CAWCD Wheeling Contract” pursuant to Section 8.18 of the Master Repayment Contract and in accordance with the CAP System Use Agreement.

<sup>6</sup> Entitlement means authorization to beneficially use mainstream water pursuant to (i) the Consolidated Decree, (ii) a contract with the U.S. through the Secretary, or (iii) a Secretarial Reservation of mainstream water.

<sup>7</sup> Consumptive use is defined as diversions, less return flows to the river.

<sup>8</sup> GSC Farm currently uses the CVIDD diversion and delivery infrastructure for the GSC Farm entitlement, but the GSC Farm entitlement is separate and distinct from the CVIDD entitlement.

restrictions or any other restrictions on lands owned by GSC Farm that require limitations on future water use. The covenants have been completed.

## 1.3 Project Location

GSC Farm owns approximately 504 acres of agricultural land in the Cibola Valley in Township 1N, Range 23W, Sections 29 and 31 and Range 24W, Section 36, APN# 302-01-011A, 302-13-001D, 302-13-002, and 302-01-013 in La Paz County, Arizona (**Figure 1**). An aerial overview of the GSC Farm parcels, collectively referred to as “GSC Farm property”, is provided in **Figure 2**.<sup>9</sup>

Queen Creek is a municipal government encompassing approximately 42 square miles within its annexed limits and comprising a water service area of approximately 70.5 square miles (Town of Queen Creek 2018). Queen Creek is located in Maricopa and Pinal counties (all within the Phoenix Active Management Area; **Figures 3 and 4**).

## 1.4 Purpose and Need

### 1.4.1 Reclamation’s Purpose and Need

Reclamation’s purpose and need is to evaluate GSC Farm’s request to assign 2,033.01 AFY of its Arizona fourth priority Colorado River water entitlement to Queen Creek and transfer the water assigned to Queen Creek by changing the point of diversion, place of use, and type of use. In accordance with its responsibility to manage the lower Colorado River, Reclamation, on behalf of the Secretary, will evaluate the request. An approval of the request would require Reclamation to:

- execute the partial assignment and transfer of Arizona fourth priority Colorado River water entitlement between GSC Farm and Queen Creek,
- execute a Colorado River water delivery contract between the United States and Queen Creek,
- amend the existing Colorado River water delivery contract between GSC Farm and the United States to reduce GSC Farm’s Arizona fourth priority Colorado River water entitlement, and
- execute an 8.17 Wheeling Contract with Queen Creek to wheel the transferred fourth priority Arizona Colorado River water entitlement to Queen Creek.

These federal actions are common to all action alternatives considered in this EA.

### 1.4.2 Queen Creek’s Objectives

Queen Creek’s objective is to develop, to the greatest extent possible, a diverse portfolio of water supplies while reducing its reliance on groundwater. Queen Creek’s water supply is almost<sup>10</sup> completely reliant on groundwater and the use of the Central Arizona Groundwater Replenishment District (CAGRDR) to meet its water resource obligations. To provide long-term municipal water needs, Queen Creek desires to reduce its reliance on groundwater, and Queen Creek would then, in part, replace current groundwater use with the Arizona fourth priority Colorado River water delivered through the CAP canal.

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<sup>9</sup> These maps are representative of GSC Farm property boundaries; actual parcel boundaries are as surveyed and described in the legal description in the CC&Rs.

<sup>10</sup> Queen Creek currently receives 495 AFY of CAP Municipal and Industrial Priority water under its CAP Subcontract No. 09-XX-30-W0542, dated November 2, 2009.

The water transported in the CAP to Queen Creek would be directed to suitable Groundwater Savings Facilities (GSFs) in or in the vicinity of the Queen Creek service area. No new infrastructure would be required to deliver the Arizona fourth priority Colorado River water that is proposed for transfer from GSC Farm.

Queen Creek has legal access to groundwater supplies needed to support its current demand and planned development within its water service area (Sunrise Engineering 2017).<sup>11</sup> Although ADWR has issued certificates of assured water supply and analyses of assured water supply based on these groundwater resources, Queen Creek's purpose in seeking this allocation is to reduce, in part, its reliance on groundwater and the CAGRDR.

## 1.5 Scope of the Federal Action

The CEQ's NEPA regulations (40 CFR Part 1500) were followed to develop the scope of review for the federal actions considered in this EA. In determining the scope of analysis for this EA, Reclamation reviewed the Proposed Action, the scoping comments received during public scoping, and evaluated the actions in the context of 40 CFR Part 1508.25.

The Proposed Action includes the federal approvals of the federal contracts listed in **Section 1.2.1**. No connected federal actions have been identified. The Proposed Action does not include approvals of future private development plans on GSC Farm's land, which is a matter of state and/or local law and jurisdiction. The extent or timing of construction of any rural housing is unknown at this point. The Proposed Action does not automatically trigger land development on GSC Farm's land and any future development of GSC Farm's land is not integral to the Proposed Action. Additionally, Reclamation has no authority over the permitting, funding, or construction of any future development on GSC Farm's land, and Reclamation's approval or denial of the Proposed Action does not entitle GSC Farm to proceed with development. While the water that may be used to develop GSC Farm's land is contracted from a federal project, the relationship between the federal contracts and the proposed private development projects is merely a complementary but distinct function.

The transferred water would be stored in one or more existing GSFs. This water would be available for recovery and use in Queen Creek's existing municipal water supply system in lieu of existing available groundwater resources. Future development activities in Queen Creek are not enabled nor do they rely on the water to be transferred; therefore, any future development activities that might use this water are outside of the scope of federal action considered in this EA.

Because the potential private development of GSC Farm property is reasonably foreseeable and for the reasons stated above, the effects of this action are evaluated as a cumulative effect.

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<sup>11</sup> Queen Creek, with ADWR's Assured Water Supply Program to evaluate the availability of a 100-year water supply, has identified sources of groundwater to support continued growth and development. Some areas within the Queen Creek service area have obtained Assured Water Supply Certificates, others have an Analysis of Assured Water Supply; these are all based on groundwater supply.

- Areas that already hold Assured Water Supply Certificates are fully authorized to develop. Queen Creek is a member of the CAGRDR to conform with the Assured Water Supply Management Program. Queen Creek has already proved a 100-year water supply and all the agreements are in place with CAGRDR for replenishment of the subdivision's groundwater use within the Phoenix Active Management Area.
- Those areas with an Analysis of Assured Water Supply have completed the hydrologic studies to demonstrate the availability of a 100-year physical groundwater supply. Once Queen Creek has applied to ADWR for a Certificate of Assured Water Supply, these areas can enter into agreements with CAGRDR to meet replenishment obligations (Sunrise Engineering 2017).

## 1.6 Decision Framework

Reclamation's Lower Colorado Basin Regional Director is the deciding official regarding the Proposed Action. Based on the analysis in this EA, the Regional Director will determine whether an Environmental Impact Statement (EIS) is required. If an EIS is not required, the Regional Director would identify the agency preferred alternative and issue a finding of no significant impact (FONSI).

A FONSI is appropriate if the Proposed Action will not have a *significant* effect on the human environment (40 CFR Part 1508.13 and 1508.27). In gauging significance, the agency must consider both *context* and *intensity*. *Context* recognizes that significance varies depending on whether impacts are local, regional, global, or affect a particular subset of the population. *Intensity* refers to the severity of the impacts and should consider: 1) beneficial as well as adverse impacts; 2) whether impacts are highly unknown or risky, are highly controversial, or whether the action will establish a precedent for future actions with significant effects; 3) the effect on public health and safety, environmental justice, and whether the action violates federal, state or local law protecting the environment; 4) effects on unique geographical areas such as historic and cultural resources, areas or objects listed on the National Register of Historic Places (NRHP), parks, prime farmlands, wetlands, wild and scenic rivers, or places of high scientific value; 5) effects on threatened or endangered species; and 6) whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

## 1.7 Public Involvement

In accordance with NEPA's purpose and Reclamation's regulations and policy, Reclamation solicited input from the public on the Proposed Action to assist in identifying key issues and defining the scope of the EA. A public notice providing information on the Proposed Action and direction on ways to submit comments was issued initiating a 30-day scoping period on August 25, 2021. The scoping period closed on September 24, 2021. Public information was provided in the following ways:

- The public notice was published in *The Parker Pioneer*, *The Mohave Daily News* and the *Arizona Republic* on August 25, 2021 (**Appendix A**).
- Reclamation issued a press release on August 25, 2021 - <https://www.usbr.gov/newsroom/#/news-release/3964> (**Appendix B**).
- Notices were mailed or emailed to 972 private citizens, non-governmental organizations, public officials, and other potential stakeholders (**Appendix C**) with a brief summary of the Proposed Action and instructions to obtain more information and comment on the Project.
- Information was made available on two websites. Both websites provided active links for electronic submittal of comments as well as directions for emailing, faxing, or mailing comments.
  - The Reclamation Website (Reclamation Website), created as a project-specific page on its agency website, was activated in July 2021. Its purpose is to provide the public with Project documents and to invite interested individuals to be added to the mailing list to receive information about the Project. This website will remain active throughout the NEPA process and can be accessed at: [https://www.usbr.gov/lc/region/programs/ProposedAction\\_GSC\\_QC.html](https://www.usbr.gov/lc/region/programs/ProposedAction_GSC_QC.html)

- The GSC Farm-Queen Creek Project Website (GSC-QC Project Website) was activated on August 25, 2021, to provide an explanation of the NEPA process and federal decisions that may be made as a result of this EA, information about the Proposed Action, and assistance in facilitating the public comment process. Information provided on the GSC-QC Project Website includes brief descriptions of the Proposed Action and Alternatives, a virtual open house with the Project background and overview, a description of the NEPA process, and links to relevant documents and information. A virtual guestbook is provided for those who wish to be added to the mailing list to receive future information. The website described the process for interested individuals to provide comments during the scoping period and included a fillable form for individuals to submit their comments digitally from August 25 to September 24, 2021. This website also will remain active and be updated throughout the NEPA process and can be accessed at <https://www.gscfarmqckwatertransfer.com>

The scoping mailing list consists of commenters who participated during ADWR's public outreach process for its review of the proposed Water Transfer, other stakeholders who have expressed an interest in Reclamation decisions and requested to be notified of agency actions, and potentially interested individuals or organizations identified by GSC Farm and Queen Creek.

## 1.8 Issue Development

Public comments submitted during the public scoping period through the GSC-QC Project Website, or via email, fax, surface mail, or private mail service are collectively referred to as Comment Letters. A total of 132 Comment Letters were submitted during the scoping period. Commenters are provided in **Appendix D**. Using the Comment Letters from the public, the tribes, other agencies, and organizations, Reclamation developed a list of issues to address in the EA. Only key issues need to be analyzed in a NEPA document. Therefore, issues were categorized into one of two groups: key issues and non-key issues.

Issues were considered non-key issues if they were:

- Beyond the scope of the Proposed Action.
- Irrelevant to the decision to be made.
- Already decided by law, regulation, or policy.
- Conjectural in nature or not supported by scientific evidence.

The key issues were used to guide the analysis of the environmental effects of the Proposed Action and alternatives. Key scoping issues identified during the scoping period are:

- **Biological Resources**—What are the potential impacts to biological resources from the action?
- **Socioeconomic**—What are the socioeconomic impacts of the proposed transfer of water away from GSC Farm property, including the resulting loss of agricultural activities?
- **Prime Farmlands** – What are the impacts to designated prime farmlands?
- **Environmental Justice**—Are minority or low-income populations disproportionately adversely affected by the Proposed Action?

Other resources/issues identified during scoping that after review and summary analysis were eliminated from more detailed analysis and comparison of alternatives are:

- **Air Quality**
- **Groundwater Resources**
- **Public Health and Safety**
- **Land Use**
- **Visual Resources**
- **Global Climate Change**
- **Cultural and Historic Resources**
- **Indian Trust Assets**
- **Recreation**
- **Surface Water Quantity**
- **Surface Water Quality**

An analysis of these other resources/issues is summarized in **Chapter 3, Table 2**.

## 2 Description of Proposed Action and Alternatives

Descriptions of the Proposed Action, the Partial Assignment and Transfer of 1,078.01 AFY Alternative, and the No Action Alternative are provided in the following sections of this chapter. **Table 1** provides a summary of the volumes of GSC Farm’s 2,913.3 AFY Arizona fourth priority Colorado River water entitlement to be transferred or retained and the acreage of GSC Farm property affected under each of the three alternatives. The alternatives are discussed in detail throughout the following sections.

### 2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve the proposed transfer and assignment or amend the GSC Contract<sup>12</sup>. GSC Farm would continue to operate under its current GSC Contract. GSC Farm’s proposed change in the place of use, type of use, and point of diversion would not occur. GSC Farm would continue to receive its existing Arizona fourth priority Colorado River water entitlement to irrigate approximately 485 acres<sup>13</sup> of farmland owned by GSC Farm located within CVIDD. The approximately 830.29 AFY of return flows to the Colorado River would continue.

Queen Creek would continue to obtain water for its service area through its existing CAP Municipal and Industrial Priority Subcontract (495 AFY) and through groundwater withdrawals within its service area (approximately 23,142 AF in calendar year 2020). Queen Creek would continue to seek sustainable, resilient water supplies to reduce its groundwater reliance. In its Water System Master Plan Update 2017 (Town Project #WA051), Queen Creek identified other water source projects to supply the water system within its minimum water source criteria at build-out. Under the No Action Alternative, Reclamation would not execute the proposed Arizona fourth priority Colorado River water delivery contract or a wheeling agreement with Queen Creek.

### 2.2 Proposed Action: GSC Farm – Queen Creek Water Transfer

Under the Proposed Action, Reclamation would approve: 1) the partial assignment and transfer of 2,033.01 AFY of Arizona fourth priority Colorado River water between GSC Farm and Queen Creek, 2) a Colorado River water delivery contract between the U.S. and Queen Creek for diversion and consumptive use of 2,033.01 AFY of Arizona fourth priority Colorado River water; 3) an amendment of the existing GSC Contract to reduce GSC Farm’s Arizona fourth priority Colorado River water entitlement to 69.93 AFY of diversion and change the authorized use from irrigation to domestic use; and 4) an 8.17 Wheeling Contract with Queen Creek to wheel the 2,033.01 AFY to Queen Creek through the CAP (collectively, the “Proposed Action”).

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<sup>12</sup> The No Action Alternative would not preclude GSC Farm from proposing future assignments, amendments, or other actions pursuant to the GSC Contract.

<sup>13</sup> GSC Farm owns 504 acres, of which approximately 19 acres are roads, canals or other working areas not under active production.

**Table 1. Summary of the No Action and Action Alternatives**

<b>Action Feature/Element Subset of Action Feature/Element</b>	<b>No Action</b>	<b>Proposed Action</b>	<b>Partial Assignment and Transfer of 1078.01 AFY Alternative <sup>a</sup></b>
Partial assignment of GSC Farm’s Arizona fourth priority Colorado River water entitlement to Queen Creek (AFY)	0	2,033.01	1,078.01
Water delivery to Queen Creek (after evaporative losses) <sup>b</sup> (AFY)	0	1,931.36	1,024.11
GSC Farm’s Arizona fourth priority Colorado River water entitlement retained (AFY)	2,913.30	69.93	1,405.59
Total consumptive use on GSC Farm in Cibola County <sup>c</sup> (AFY)	2,083.01	50	1,005
GSC Farm’s return flows from GSC Farm property <sup>d</sup> (AFY)	830.29	19.93	400.59
Non-transferable portion of GSC Farm's fourth priority Colorado River water entitlement based on historical return flows (AFY) <sup>e</sup>	0	810.36	429.70
GSC Farm acreage irrigated for agricultural use <sup>f</sup>	485	0	234
Acres of GSC Farm property retired from irrigated agricultural use <sup>g</sup>	0	485	251

<sup>a</sup> This alternative is the amount that was originally recommend by ADWR on September 4, 2020, prior to its revised recommendation on January 20, 2021, which became the Proposed Action (**Section 2.2**).

<sup>b</sup> Volume of water introduced, less 5 percent CAP System losses.

<sup>c</sup> This is calculated by adding agricultural use and any consumptive use that may occur for domestic purposes; for the partial transfer alternative no distinction is made here between water used for potential domestic consumption, which could be up to 50 AFY, and agricultural consumptive use.

<sup>d</sup> For all alternatives, the estimated volume of return flow from GSC Farm is based on standard water accounting practices (unmeasured return flow factor = 0.285).

<sup>e</sup> The historical return flow volume from GSC Farm's use of its entitlement in agricultural irrigation are not transferable. Only the portion of the entitlement that historically has been consumptively used may be transferable.

<sup>f</sup> For the partial transfer alternative, this was calculated based on the consumptive use for agriculture under the current farming practices at GSC Farm.

<sup>g</sup> This row reflects the balance of land not under active irrigation.



For the volume of GSC Farm’s Arizona fourth priority Colorado River water entitlement that is proposed to be assigned and transferred to Queen Creek, the Proposed Action would involve changing the place of use, type of use, and point of diversion for 2,033.01 AFY of the entitlement (**Table 1**).

ADWR and GSC Farm calculated GSC Farm’s average (10-year) consumptive use to be 2,083.01 AFY of its 2,913.3 AFY Arizona fourth priority Colorado River water entitlement. Under the proposed amended GSC Contract, GSC Farm would retain an entitlement to divert 69.93 AFY and the type of use would change from irrigation to domestic use. Four hundred eighty-five acres of farmland would be permanently retired from irrigated agricultural use. The GSC Farm property has been designated as an area for future residential growth by the La Paz County Comprehensive Plan (La Paz 2005). The land use designation on GSC Farm property is “Rural Community.” Pursuant to the conditionally recorded Covenants, Conditions and Restrictions (CC&Rs), GSC Farm could develop up to 56 5-acre lots on approximately 280 acres of the 504-acre property where the Arizona fourth priority Colorado River water entitlement is currently authorized to be used under the GSC contract. Consumptive use for the potential residential development is estimated not to exceed 50 AFY with projected return flows to the Colorado River of 19.93 AFY. Concurrent with or prior to development of the 280 acres, GSC Farm would transfer its remaining entitlement (69.93 AFY of diversion) to a municipal water service provider for domestic use. The remaining 205 acres of currently irrigated land would be fallowed and allowed to return to a natural state.

To limit the amount of Colorado River water that may be diverted to serve GSC Farm property in the future, GSC Farm has recorded CC&Rs on the 504 acres of GSC Farm property subject to this proposed transfer of Arizona fourth priority Colorado River water entitlement (La Paz County Recorder, No. 2021-01037 March 9, 2021). The provisions of the CC&Rs allow for enforcement of the CC&Rs by GSC Farm or CVIDD as necessary to limit water use. The CC&Rs are binding upon, and run with the land to, all owners and their successors.

Under the Proposed Action, 2,033.01 AFY of Arizona fourth priority Colorado River water entitlement would be transferred from GSC Farm to Queen Creek. The point of diversion for the Arizona fourth priority Colorado River water would change from CVIDD diversion facilities, where the water is currently delivered to the GSC Farm, to the Mark Wilmer Pumping Plant, near Parker Dam, for conveyance through the CAP canal. To take delivery of this water, Queen Creek is required to execute an 8.17 Wheeling Contract with Reclamation to divert and transport Non-Project Water through the CAP to Queen Creek. Queen Creek intends to then direct that water to suitable GSFs in the immediate vicinity of Queen Creek as described below. Due to evaporative losses along the CAP, the amount of Non-Project Water delivered to Queen Creek would be approximately 1,931.36 AFY.

Existing infrastructure is in place to accept Arizona fourth priority Colorado River water that is proposed for transfer from GSC Farm. No new construction or ground disturbing activities would be required to convey the water from the new (mainstream) point of diversion to the new (Queen Creek) place of use at Queen Creek’s Service Area. The Arizona fourth priority Colorado River water proposed for transfer from GSC Farm would be diverted from the mainstream at the existing CAP diversion (Mark Wilmer Pumping Plant) and transported via existing canals and conveyances (the CAP canal) to Queen Creek. The water would then be diverted from the CAP canal through existing CAP turnouts and delivered to existing, permitted GSFs. A GSF would utilize the Arizona fourth priority Colorado River water for indirect recharge of groundwater.

Three potential GSFs have been identified and are available for GSF storage use of the transferred water (**Figure 4**):

1. Roosevelt Water Conservation District (RWCD) has an existing GSF, an existing CAP turnout, and an existing water delivery system to transport the water proposed for transfer to existing RWCD farms. RWCD can also take delivery of the water proposed for transfer from GSC Farm water through the existing CAP-Salt River Project Interconnect Facility, which can facilitate the transport of water through existing canals and lift stations to deliver the water into the existing RWCD delivery system. RWCD would reduce its groundwater use in an amount equivalent to the volume of water proposed for transfer and delivered to RWCD. No new ground disturbing activities would be associated with the RWCD GSF or the recovery of stored water.
2. Queen Creek Irrigation District (QCID) has an existing GSF, an existing CAP turnout, and an existing water delivery system to transport the water proposed for transfer to existing QCID farms. QCID would reduce its groundwater use in an amount equivalent to the water proposed for transfer that is delivered to QCID. No new ground disturbing activities would be associated with the QCID GSF or the recovery of stored water.
3. New Magma Irrigation and Drainage District (NMIDD) has an existing GSF, an existing CAP turnout, and an existing water delivery system to transport the water proposed for transfer to existing NMIDD farms. NMIDD would reduce its groundwater use in an amount equivalent to the volume of water proposed for transfer from GSC Farm and delivered to NMIDD. No new ground disturbing activities would be associated with the NMIDD GSF or the recovery of stored water.

Under Arizona state law, the water delivered to, and stored in, these GSFs would then be available for Queen Creek to recover and use on an annual basis under existing, permitted recovery wells. Queen Creek's existing potable water well system is currently permitted as recovery wells and no new wells would need to be constructed to recover the water proposed for transfer from GSC Farm. Once recovered, the saved water is available for direct delivery to Queen Creek water customers for domestic use in the Queen Creek service area.

## **2.3 Partial Assignment and Transfer of 1,078.01 AFY Alternative**

Under this alternative, GSC Farm would retain an entitlement to divert 1,405.59 AFY and Queen Creek would receive an entitlement to divert and consumptively use 1,078.01 AFY. This alternative is the amount that was originally recommended by ADWR on September 4, 2020, prior to its revised recommendation on January 20, 2021, which became the Proposed Action (**Section 2.2**).

Like the Proposed Action, this alternative would also involve a change in place of use, type of use, and point of diversion. In contrast to the Proposed Action, this alternative would transfer 1,078.01 AFY of consumptive use off the mainstream of the Colorado River to Queen Creek, and GSC Farm would retain an entitlement to divert 1,405.59 AFY for agricultural and potential residential uses on its land in Cibola Valley. Consumptive use for irrigation and domestic uses would be approximately 1,005 AFY with projected return flows to the Colorado River from irrigation or domestic uses of 400.59 AFY. GSC Farm could continue to irrigate approximately 234 acres for agricultural use. The GSC Farm property has been designated as an area for future residential growth by the La Paz County Comprehensive Plan. The land use designation on GSC Farm property is "Rural Community." Given

the planned development under the Proposed Action, it is anticipated that GSC Farm would develop the approximately 251 acres of land that would be followed by the allocation of water to Queen Creek. Similar to the Proposed Action, this would require a transfer of approximately 69.93 AFY of entitlement (on a diversion basis) to a municipal water service provider for domestic use that would be subject to Reclamation's approval as a separate action.

To limit the amount of Colorado River water that may be diverted to serve GSC Farm property in the future, GSC Farm and CVIDD would have to update the current version of CC&Rs on GSC Farm property. The updated and revised CC&Rs would be recorded with the La Paz County Recorder and would restrict the use of GSC Farm property and be binding upon all future owners and their successors, subject to Reclamation's approval of a water transfer.

Under this alternative, the transferred volume of Arizona fourth priority Colorado River water would change but other elements described in **Section 2.2** would remain the same. GSC Farm would transfer 1,078.01 AFY of Arizona fourth priority Colorado River water to Queen Creek. Due to evaporative losses along the CAP, the amount of Non-Project Water delivered to Queen Creek would be approximately 1,024.11 AFY. The point of diversion and the place of use, for the transferred water, are the same as those described for the Proposed Action (**Section 2.2**). The 8.17 Wheeling Contract with Reclamation would reflect the 1,078.01 AFY of water transferred to Queen Creek. The potential locations for the GSF storage of the transferred water would be the same as listed in **Section 2.2** for the Proposed Action.

## 2.4 Alternatives Considered but Dismissed

The CEQ regulations state that federal agencies shall identify and evaluate reasonable alternatives to a proposed action (40 CFR §1500.2). To be considered reasonable, and carried forward in the EA for analysis, an alternative must be feasible and meet the purpose and need of the proposed action. Alternatives considered and dismissed include those that are infeasible or purely conjectural possibilities whose implementation is remote and speculative. Reclamation's purpose is to respond to GSC Farm's requests for a partial assignment and transfer of its Arizona fourth priority Colorado River water entitlement and to change the point of diversion and wheel the water in the CAP to Queen Creek. Queen Creek's objective in acquiring the water currently held by GSC Farm is to diversify its water portfolio and reduce its dependence on groundwater.

Alternatives considered and dismissed include Queen Creek potentially acquiring water from other sources. Queen Creek has identified in its Water System Master Plan Update 2017 (Town Project #WA051) other potential water source projects to supply water to Queen Creek to achieve this goal. Included in this class of water source projects that Queen Creek will consider is acquisition of water from the Harquahala Valley Water Project. On November 17, 2021, Queen Creek entered into a non-binding purchase and sale agreement with Harquahala Valley Landowners, LLC for the purchase of up to 5,000 AFY of water to be produced by the Harquahala Valley Water Project. An eventual completion of this acquisition is dependent upon the actions and determinations of several other entities. Other projects may also require actions and determinations by several entities that are not within Reclamation's jurisdiction or control. Further, while all new water source projects considered by Queen Creek could contribute to its goal of diversifying its water supply system and reducing its reliance on groundwater, the pursuit of one or more projects by Queen Creek would not preclude its pursuit of other options. Additionally, ongoing or reasonably foreseeable actions by Queen Creek to add additional water sources would fall under the No Action Alternative.

During scoping, some commentors also suggested that Reclamation should consider assignment of GSC Farm's Arizona fourth priority Colorado River water entitlement to other entities. Such a consideration is too remote and speculative. Neither GSC Farm nor ADWR, consistent with their legal and contractual roles and responsibilities, has requested or recommended such an assignment to Reclamation for action, analyzed the feasibility of such an assignment, or reached agreement with another entity willing to acquire the entitlement.

Reclamation is not aware of other available alternatives that would involve a discretionary decision by Reclamation.

# 3 Affected Environment and Environmental Consequences

This chapter describes the resources that have the potential to be affected by the Proposed Action and a detailed analysis of the potential impacts to those resources. The analysis includes the direct, indirect, and cumulative impacts on the physical, biological, and socioeconomic resources that can be expected from implementing the Proposed Action and alternatives. Environmental consequences are analyzed based on effects to resources under consideration within the Proposed Action area as defined in the following sections. The proposed routing of water for the Proposed Action is depicted in **Figure 4**.

The CEQ defines direct effects as those that are caused by the action and occur at the same time and place, and it defines indirect effects as those that are caused by the action and occur later in time or farther removed in distance. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts were determined by combining the impacts of the alternatives on the affected environment with other past, present, and reasonably foreseeable future actions (see **Section 3.6**). Best Management Practices (BMPs; or other mitigative or protective measures described in the following sections) are considered part of the Proposed Action and are taken into consideration when predicting environmental consequences.

## Impact Methods and Terminology

The impact analysis for each resource is focused only on areas where the applicable resource is likely to be impacted by the Proposed Action and alternatives. However, not all resources would experience impacts within the project area, and not all impacts from the Proposed Action or alternatives would extend across the entire analysis area.

For each resource, this section describes the current conditions, followed by an analysis of the impacts of the Proposed Action and alternatives using the following impact type descriptors:

- **Direct**—A direct impact is an effect on a resource that is caused by the action and occurs at a particular time and place. For this analysis, direct impacts are associated with changes to water operations.
- **Indirect**—An indirect impact is an effect on a resource that is caused by the action later in time or farther away and is still reasonably foreseeable (e.g., increased likelihood of nonnative, invasive species moving into the area after disturbance). Indirect impacts could occur upstream or downstream of any direct impacts due to hydrologic changes.
- **Negligible or inconsequential**—This indicates no measurable or observable change from current conditions: The impact on the resource would be at or below the levels of detection.

- Minor or minimal—This indicates a small, detectable, or measurable change. The impact could be:
  - a) outside the range of natural or typical variability but occur for a very brief duration; or
  - b) within the natural or typical range of variability but occur for a longer period of time. Mitigation, if implemented, would be easily applied and successful with a high degree of certainty.
- Moderate—This indicates an easily discernible or measurable change. The effects would either:
  - a) be readily apparent or would result in measurable impacts on the resource; these impacts would affect the availability or natural recovery of those environmental elements over the long-term; or
  - b) could be substantial but of a short duration with no permanent impact on the resource. It is anticipated that mitigation, if implemented, would be successful with a high degree of certainty, based on prior examples with similar effects and documented mitigation outcomes.
- Major—This indicates a large observable or measurable change: The effects would result in substantial impacts to the resource that would be readily apparent, consequential, and outside the natural or typical range of variability. Mitigation, if implemented, would be uncertain in its success, or ineffective with consequent long-term and permanent changes in the availability or natural recovery of the resource.
- Beneficial—This indicates a positive change in the condition, appearance, or function of the resource.
- Adverse—This indicates a negative change that moves the resource away from or detracts from its condition, appearance, or function.

Due to the dynamic nature of operating procedures for the lower Colorado River, river flow variability, and other uncertainties, the analysis may provide a range of variability to account for these conditions. The analysis captures effects to the extent reasonably possible, based on the best available information; however, the actual timing and volume of future diversions in any given year are not, and cannot be, reflected precisely in the analysis.

### **3.1 Resources and Issues Considered and Eliminated from More Detailed Analysis and Comparison of the Alternatives**

After reviewing the potential effects to the resources listed in **Table 2**, Reclamation determined that a more detailed analysis and comparison of the direct, indirect, and cumulative effects of the Proposed Action and alternatives, including the No Action Alternative, to those resources was not required to determine if the potential effects of the action are significant. **Table 2** summarizes the analysis regarding these resources/issues.

**Table 2. Resources and Issues Eliminated from Detailed Comparative Analysis**

<b>Resource</b>	<b>Discussion and Rationale</b>
Air Quality	<p>There are no non-attainment areas for criteria pollutants monitored by the U.S. Environmental Protection Agency (EPA) in La Paz County. There are no construction activities associated with the Proposed Action, and implementation of the Proposed Action would not contribute to increased particulate matter or other pollutants monitored by Arizona Department of Environmental Quality (ADEQ).</p> <p>The fallowing of the agricultural land by GSC Farm would increase the acreage of land exposed to wind erosion without plant cover until natural successional processes reestablish a natural plant community, contributing to fugitive dust emissions from the GSC Farm property. This effect is offset by the reductions in air emissions from agricultural activities (plowing and tilling of the land, harvest activities, etc.). Following ADEQ BMPs in their fugitive dust program, including limiting field and soil disturbance and keeping vehicle access and speeds decreased along the Property, would reduce air pollutant emissions associated with the No Action and action alternatives (ADEQ 2021, accessed online 12/2/21).</p>
Groundwater	<p>The Proposed Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative are expected to add to subsurface water resources in the vicinity of the GSFs where the water would be delivered. These additions to the subsurface water would be offset by pumping and delivery of potable water reducing the decline in groundwater in the vicinity of Queen Creek in proportion to the volume of water transferred and delivered.</p> <p>At GSC Farm, under either action alternative, the total volume of water applied that could move to the vadose zone and then either return to the river or move to groundwater would be reduced. The action alternatives all contain provisions to ensure that the volume of water currently accounted for as return flows are retained in the system. Return flows would continue being delivered to meet downstream water demands, in accordance with applicable law and contracts. Potential reductions in recharge of the vadose zone and groundwater is negligible. These expected changes are minor in scale, and further consideration and analysis in this EA would not inform the decision. Under the No Action alternative, Queen Creek would continue to pump groundwater at existing levels.</p>
Public Health and Safety	<p>The Proposed Action is not expected to have any demonstrable or measurable effect on public health and safety at GSC Farm property or on the facilities and operations of the infrastructure systems used to deliver the transferred water to Queen Creek. No new infrastructure would be constructed under either action alternative, and no releases of hazardous materials would be expected to occur.</p>

<b>Resource</b>	<b>Discussion and Rationale</b>
Land Use	<p>The GSC Farm property is currently zoned as RA-40: Rural Agricultural. RA-40 and other similar zoning categories in La Paz County is a designation for rural areas comprised of large parcels of land that are used for zoning and allows for permanent dwellings with agricultural uses and other structures necessary to support agricultural and open space uses. The La Paz County Comprehensive Plan (La Paz 2005) designates Cibola, which encompasses GSC Farm property, as "Rural Community." The "Rural Community" designation allows for a maximum development of 5 units per 1 acre. However, under its current zoning, GSC Farm property would need to be rezoned to create the 5-acre parcels contemplated in the CC&amp;Rs that have been conditionally recorded for GSC Farm property. This contemplated use is compatible with the La Paz County Comprehensive Plan.</p> <p>The alternatives contemplated in this EA would not result in a land use that is incompatible with the adjacent properties or would cause conflict with other nearby public lands.</p>
Visual Resources	<p>Selection of either the Proposed Action or the Partial Assignment and Transfer of 1,078.01 AFY Alternative would result in a change of land use at GSC Farm property. Under either of these action alternatives, current agricultural activities would be stopped, and fields fallowed. Transfer and delivery of GSC Farm's Arizona fourth priority Colorado River water entitlement to Queen Creek would not require construction of new facilities or infrastructure that could have potential adverse impacts to visual resources. This potential change is consistent with current local land use plans and any adverse impacts would be minor as the fallowed fields have similar appearance to farmed fields.</p>
Global Climate Change	<p>The reduction in agricultural activities at GSC Farm associated with the selection of either action alternative is expected to reduce the total amount of greenhouse gasses associated with current land farming practices. This would be offset by the expected greenhouse gas emissions associated with the transport and delivery of the water to Queen Creek. The selection of either action alternative would not trigger the need for development of new power sources to transport and deliver the water to Queen Creek and the overall change in greenhouse gases would be expected to be negligible, in part, because of the offset by reduction in agriculture activities at GSC farms.</p>



<b>Resource</b>	<b>Discussion and Rationale</b>
Cultural and Historic Resources	<p>A Class I cultural resources report was completed by WestLand Engineering &amp; Environmental Services (WestLand 2021) for the four parcels owned by GSC Farm totaling 504 acres. WestLand’s Class I records search revealed that the majority of GSC Farm property has not been previously surveyed for cultural resources and no previously recorded archaeological sites or historic properties have been recorded on GSC Farm property. A portion of one previous archaeological survey intersected the southernmost end of GSC Farm property, providing coverage of approximately 7 acres, or 1.4 percent of GSC Farm property. WestLand’s examination of historical-period maps and aerial imagery found no structures or features of historic significance within GSC Farm property.</p> <p>GSC Farm property has been subject to extensive natural and agricultural disturbance. During the first half of the twentieth century, this area, situated in a low-lying area at a bend in the Colorado River, was subject to flooding and fluvial processes that included sediment deposition and erosion as river meanders changed. During the mid-twentieth century, damming and channelization of the river prevented such flooding and allowed development of the Cibola Valley for modern agriculture. Therefore, the probability of finding archaeological sites on GSC Farm property is extremely low.</p> <p>The following of lands under either the Proposed Action or the Partial Assignment and Transfer of 1,078 AFY Alternative would result in no new surface disturbance that would have the potential to adversely affect buried cultural resources below the plow zone of either past or ongoing agricultural practices. Future land development activities that could occur on private lands at GSC Farm property fall outside the federal nexus for this EA and would be subject to local and state cultural resource regulation.</p> <p>All of the lands involved in the alternatives considered in this EA are ancestral lands to Native Americans. No information was received during scoping or to date in our consultation with Native American groups affiliated with these areas that would indicate traditional cultural properties or sites used for traditional religious purposes exist on GSC Farm property. Considering the ongoing uses of these lands such features are not expected to be adversely affected by the selection of the No Action or any action alternative.</p>
Indian Trust Assets	<p>Native American water rights and entitlements that are legal interests in property held in trust by the United States for tribes or individuals would not be affected by any of the alternatives considered in this EA. No other Indian Trust Assets were identified that could potentially be affected by the Proposed Action.</p>

<b>Resource</b>	<b>Discussion and Rationale</b>
Recreation	<p>Many water-related recreation activities occur along the Colorado River, including, but not limited to, bird watching, boating, skiing, and fishing. Arizona State Parks and Trails manages three areas downriver from Parker Dam: Cattail Cove, Buckskin Mountain, and River Island state parks which offer river access and recreational opportunities. The U.S. Fish and Wildlife Service (USFWS) manages five National Wildlife Refuges (NWR)s along the lower Colorado River: Bill Williams River NWR, Cibola NWR (adjacent to GSC Farm), Havasu NWR, Imperial NWR, and Kofa NWR.</p> <p>The change in the point of diversion under the Proposed Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative would have a negligible to minor adverse effect on the river flow between Parker Dam and the current CVIDD point of diversion for the GSC Farm Arizona fourth priority Colorado River water entitlement. While the transferred water could be diverted at various times, Queen Creek would most likely request the water delivery occur from April to August. Under the Proposed Action, the transfer of 2,033.01 AFY during this 5-month period would result in an approximately 6.5- to 7.04-cubic feet per second (cfs) reduction in river flow. This is approximately 0.048 to 0.053 percent of the monthly average discharge at U.S. Geological Survey (USGS) Gage #09427520 below Parker Dam.</p> <p>Under the Partial Assignment and Transfer of 1,078.01 AFY Alternative, the impact to flow would be 0.024 to 0.029 percent of the average monthly flow during this same period.</p> <p>These negligible to minor effects to river flow are not expected to result in any change to recreational uses of this reach of the river.</p>
Surface Water Quantity	<p>The negligible to minor effects to river flow (see discussion above) that result from the change in the point of diversion are not expected to have any adverse impacts to water users downstream of the current CVIDD diversion. Under either action alternative, the volume of water annually that would remain in the system and available for diversion, would continue being delivered to meet downstream water demands, in accordance with applicable law and contracts, and would remain unchanged from the No Action alternative.</p>
Surface Water Quality	<p>Under the No Action alternative, agricultural uses and return flows to the river would continue, along with any discharge of agricultural pollutants related to those activities. Under the action alternatives, the total acreage of land farmed would be reduced with a proportionate reduction in the discharge of potential pollutants from those activities in the return flow. Considering the overall volume of water involved and the acreage of farmland affected by selection of either action alternative, any change in pollutant loading is expected to be negligible. Since both action alternatives would divert Colorado River water, there would no effect on water quality in the CAP because the CAP involves a diversion of Colorado River water at the same location.</p>

## 3.2 Biological Resources

### 3.2.1 Affected Environment

WestLand prepared a Biological Evaluation (BE; WestLand 2022) that considered GSC Farm property, the mainstem of Colorado River and associated riparian habitats from the Parker Dam (river mile [RM] 192.2) downstream to the CVIDD diversion at approximately RM 104.14, further downstream to the irrigation return flow outlet structure (approximately RM 99) and associated riparian habitats downstream to the All-American Canal (approximately RM 24.2). The portions of the Proposed Action and Partial Assignment and Transfer of 1078.01 AFY Alternative that include the Mark Wilmer Pumping Plant at Lake Havasu, the CAP canal and other existing infrastructure to deliver water to the GSFs in Queen Creek are excluded because there are no planned improvements associated with this project and operations of these facilities do not materially change under any action alternatives.

GSC Farm property is within the Cibola Valley which falls within lands broadly mapped as Lower Colorado River Subdivision Sonoran Desertscrub by Brown and Lowe (1980) and described by Turner and Brown (1982). Biotic communities or land cover types present vary with land ownership and associated land uses. Native habitats associated with the Lower Colorado River Subdivision Sonoran Desertscrub are described in greater detail as follows.

The privately owned lands in the Cibola Valley have been developed for agricultural uses. As such, these lands are generally devoid of natural vegetation, and surface water is managed through an extensive network of irrigation canals and manufactured drainage systems. Crops grown within the Cibola Valley are primarily alfalfa and cotton, and while most of these agricultural fields are currently under active use, some have been abandoned as evidenced by generally barren or sparsely vegetated sections.

Some of the agricultural fields are partly bordered by ditches, drainages, and overflow catchment basins that have been colonized by non-agricultural vegetation, predominantly saltbush (*Atriplex* spp.) and creosote bush (*Larrea tridentata*). Notably, some of the larger ditches and catchment basins abutting agricultural fields outside of GSC Farm property support dense stands of arrowweed (*Pluchea sericea*) and/or desert broom (*Baccharis sarothroides*) along their banks, which encircle thickets of cattail (*Typha* spp.) interspersed with tamarisk (*Tamarix* sp.) and occasional small stands of Goodding's willow (*Salix gooddingii*). This vegetation also exists on Bureau of Land Management (BLM) land adjacent to this part of GSC Farm property along the Colorado River that is being managed to accomplish the purposes of the Lower Colorado River Multi-Species Conservation Program (LCR MSCP).

The Cibola NWR is directly south of GSC Farm property and supports a mix of land including agricultural lands, fallowed agricultural lands, and densely vegetated, undeveloped land. One of the goals of the Cibola NWR is to convert 158 acres of active agricultural fields to the cottonwood willow land cover type and 158 acres of riparian habitat for the benefit of LCR MSCP covered species (LCR MSCP 2018). Throughout the Cibola NWR, there are unimproved dirt roads, irrigation canals, and drainages associated with the active and fallowed farm fields. Mesquite (*Prosopis* sp.), tamarisk, arrowweed, Fremont cottonwood (*Populus fremontii*), Goodding's willow, and creosotebush are common throughout this area. The Cibola NWR is an Important Bird Area, defined as a distinct area that provides essential habitat for one or more species of birds in breeding, wintering, or migration and supports a variety of other wildlife species (Audubon 2015).

The Colorado River north of GSC Farm property is bordered by agricultural lands and riparian habitat dominated by salt cedar, arrowweed, and to a lesser extent, mesquite (*Prosopis spp.*). A significant portion of this reach of the Colorado River is channelized with riprap armored banks and other riparian vegetation such as Fremont cottonwood and Goodding's willow. Cattail is generally limited to back water areas. Adjacent developed land uses are principally agricultural, with limited residential and urban development associated with Parker, Arizona, and Blythe, California.

The Colorado River south of GSC Farm property crosses through the Imperial NWR which encompasses the Imperial Ponds Conservation Area (located east of the river at River Mile 59) and has three land cover types: backwaters, riparian fields to be planted with cottonwood-willow, and marsh (LCR MSCP 2020; accessed online 02/01/2022). This stretch of the river is surrounded by mountainous desert until it reaches Yuma, Arizona where farmland is prevalent along the Colorado River.

GSC Farm property affected by the No Action and action alternatives considered in this EA has been previously disturbed by agricultural activities and does not support undisturbed, native habitats, such as those previously described. The infrastructure required to divert, transport, and deliver the Arizona fourth priority Colorado River water to Queen Creek already exists (the CAP) and no new construction would be required. Therefore, no new ground disturbing activities would occur, and there would be no loss of natural habitat as a result of implementation of either of the action alternatives.

The Colorado River in its current condition has been largely disconnected from the adjacent floodplain. Much of the river is channelized with dumped rock revetment and training dikes to protect adjacent land uses, restrict channel movement, and constrain high flow events to the channelized floodway. Adjacent riparian habitats are dominated by non-native tamarisk.

Notwithstanding the substantial loss of natural riverine and riparian function along the lower Colorado River, there are a number of listed and special-status species that occur along the Colorado River within the vicinity of the Cibola Valley as established by the BE of GSC Farm property (WestLand 2022). The USFWS Information and Planning Consultation (IPaC) queries identified a total of twelve species; nine species were listed as threatened or endangered (WestLand 2022):

- Sonoran pronghorn (*Antilocapra americana sonoriensis*),
- southwestern willow flycatcher (*Empidonax traillii extimus*),
- yellow-billed cuckoo (*Coccyzus americanus*),
- Yuma clapper rail (*Rallus longirostris yumanensis*),
- Mojave desert tortoise (*Gopherus agassizii*),
- Northern Mexican gartersnake (*Thamnophis eques megalops*),
- bonytail chub (*Gila elegans*),
- razorback sucker (*Xyrauchen texanus*), and
- Peirson's milk-vetch (*Astragalus magdalenae var. peirsonii*).

Three species were identified as candidate:

- Sonoran desert tortoise (*Gopherus morafkai*),
- roundtail chub (*Gila robusta*), and
- monarch butterfly (*Danaus plexippus plexippus*).

The IPaC also lists designated critical habitat for bonytail chub and Razorback sucker (WestLand 2022). Additionally, for five of the listed species identified by IPaC (yellow-billed cuckoo, Southwestern willow

flycatcher, bonytail chub, Yuma clapper rail, and razorback sucker) and two of the candidate species (Sonoran desert tortoise and monarch butterfly), the Arizona Game and Fish Department (AGFD) Heritage Data Management System (HDMS) system query identifies records within 3 miles of GSC Farm property and the above described portions of the Colorado River (WestLand 2022). HDMS query also shows records for one species protected under the Bald and Golden Eagle Protection Act (BGEPA), bald eagle (*Haliaeetus leucocephalus*), within 3 miles of GSC Farm property and the above described portions of the Colorado River (WestLand 2022).

Based on the screening methods described in (WestLand 2022), it was determined that:

- Due to the known distribution of the species, results of the HDMS report, and lack of habitat required by the species within GSC Farm property and the above described portions of the Colorado River, the following species have been determined to have **No potential to occur** within GSC Farm property and the above described portions of the Colorado River:
  - Mojave desert tortoise
  - Sonoran desert tortoise
  - roundtail chub
  - Sonoran pronghorn
  - Peirson's milk-vetch
- Based on the known, current distribution of the species and the required habitat, the following species is determined as **Unlikely** to occur within GSC Farm property and the above described portions of the Colorado River:
  - Northern Mexican gartersnake
- Based on the known, current distribution of the species and the required habitat, the following species is determined as **Possible** to occur within GSC Farm property and the above described portions of the Colorado River.
  - monarch butterfly
- The following species is known to occur within the GSC Farm property and the above described portions of the Colorado River, and therefore is determined to be **Present**
  - Yuma clapper rail
  - Southwestern willow flycatcher
  - bonytail chub
  - razorback sucker
  - yellow-billed cuckoo

### 3.2.2 Environmental Consequences

The reductions in water flow associated with each of the actions considered in this EA are covered under the LCR MSCP for threatened and endangered species. The LCR MSCP covers projects and activities that include the annual consumptive use of up to 2.8 million AF of Arizona's basic apportionment (LCR MSCP 2004a). Future volumes of diversions, discharges, and return flows, which may include changes to points of diversion, new points of diversion, interstate water banking, water marketing, water transfers, inadvertent overruns, or any other actions as made possible from any future agreements by ADWR or contract holder(s), are covered by the LCR MSCP (LCR MSCP 2004a). The LCR MSCP encompasses the entirety of GSC Farm property and authorizes take of listed species that

might be associated with diversions of up to 1.574 million AFY from the river between Parker Dam and Imperial Dam (River Reaches 4 and 5 of the LCR MSCP<sup>14</sup>).

### 3.2.2.1 Proposed Action

The proposed change in the point of diversion would affect the total volume of water flowing in the Colorado River from Parker Dam to the CVIDD diversion used by GSC Farm. Under the Proposed Action, water could be diverted at the Mark Wilmer Pumping Plant at any time of the year, however, Queen Creek anticipates that water would be ordered during April, May, June, July, and August. **Table 3** provides the anticipated volumes of flow during these months assumed for this analysis and percent reduction in the average monthly discharge (as cfs) at USGS Gage 09427520 below Parker Dam.

**Table 3. Anticipated Diversion Schedule for Proposed Action Alternative and Expected Impacts to River Flows—Period of Record for USGS 09427520 1/1/1935 to 10/31/2021**

Month	Volume of Water Diverted at Mark Wilmer for Queen Creek (AF)	Average Reduction in Flow in the Colorado River between Parker Dam and the CVIDD Diversion Point (cfs)	Average Monthly Discharge USGS Gage # 09427520 Colorado River Below Parker Dam (cfs)	Percent Reduction Average Monthly Discharge
January	0	0	8,850	0.000
February	0	0	10,400	0.000
March	0	0	12,700	0.000
April	400	6.72	13,600	0.049
May	400	6.51	13,000	0.050
June	400	6.72	14,100	0.048
July	400	6.51	14,500	0.045
August	433.01	7.04	13,200	0.053
September	0	0	11,700	0.000
October	0	0	9,810	0.000
November	0	0	8,570	0.000
December	0	0	8,360	0.000

Source: (Pearce 2021b)

Under the Proposed Action, approximately 830.29 AFY, the portion of GSC Farm’s current Arizona fourth priority Colorado River water entitlement that historically returned to the river as return flows, would continue to support biological functions associated with the river until diverted by others for use in accordance with applicable law.

The change in the point of diversion and land use would affect the total volume of return flows to the Colorado River south of GSC Farm property at the irrigation outflow. On average, there would be an approximate reduction of 67.53 AF (0.09 cfs) per month in return flow. However, due to Reclamation’s water delivery obligations to meet downstream water demands and a reduction in GSC Farm’s fourth

<sup>14</sup> The LCR MSCP planning area divided the Lower Colorado River into seven reaches. Reach 3 extends from Davis Dam to Parker Dam, Reach 4 extends from Parker Dam to Cibola Gage, and Reach 5 is bounded by Cibola Gage and Imperial Dam.

priority Colorado River water entitlement, total flow in the Colorado River south of GSC Farm property would not be affected.

Considering the highly altered baseline state of the river system and the general consistency of river flows relative to the natural undammed condition throughout the year, no discernable effect or change in ecosystem functions supported by river flows are expected from implementation of the Proposed Action. Additionally, given the minor change in comparison to normal river flow fluctuations, it is anticipated that the Proposed Action would not have any measurable or discernable impacts to riparian habitat or adjacent marsh habitats along the affected reaches of the river (WestLand 2022).

### **Reduced Flow Impacts to Species**

WestLand (2022) considered the impacts of the change in flow under the Proposed Action on federally-listed species determined to have the potential to occur. The following discussion summarizes the results of the analysis.

The anticipated reductions in flow from Parker Dam to the CVIDD diversion (0.045 to 0.053 percent; **Table 5**) are not expected to have measurable impacts on habitat used by the monarch butterfly. In addition to the creation of habitat associated with the LCR MSCP, the fallowing of GSC Farm property may, in the long term, result in development of suitable habitat for this species.

While two special-status fish species, bonytail chub and razorback sucker, are **Present**, anticipated reductions in flow and loss of flow in the Lower Colorado River are minor and within the normal variation of flow regimes. The amount of water diverted for the Proposed Action would have a negligible effect on water level and aquatic habitat structure and function between Parker Dam and the CVIDD diversion. No measurable effects on bonytail chub and razorback sucker or their habitat are expected. As described in **Table 5**, the anticipated effects are well within the range of effects considered in the LCR MSCP.

The Northern Mexican gartersnake was determined to have the **Potential to occur**; known records for this species are upstream of Parker Dam in the Bill Williams River National Wildlife Refuge. The anticipated reductions in flow between Parker Dam and the CVIDD diversion, as described for fish species, are minor and are therefore expected to have only negligible effects on habitat that might be suitable for Mexican gartersnake within this reach of the river.

The proposed change in the point of diversion from the CVIDD diversion to the Mark Wilmer Pumping Plant is anticipated to reduce flow from 0.045 to 0.053 percent (**Table 5**) and is not expected to have measurable impacts on habitat that might be used by riparian or marsh special-status bird species determined to have the potential to occur or that are known to be present. The Proposed Action is not expected to result in more than negligible impacts on the availability of suitable foraging resources for these species.

There are no planned construction or development activities that would result in direct or indirect effects to roosting or foraging habitat for eagles, and adverse impacts to bald or golden eagles protected under the BGEPA are not expected (WestLand 2022). The minor reduction in flows (**Table 5**) would result in no more than negligible impacts to prey fish or other prey species for bald or golden eagles along the Colorado River.

The reduction in river flow associated with the Proposed Action has been evaluated by (and is covered under) the LCR MSCP. The LCR MSCP specifically address Sections 7 and 10 of the Endangered Species Act for the effects of reduced flow impacts to species (LCR MSCP 2004a).

**3.2.2.2 Partial Assignment and Transfer of 1,078.01 AFY Alternative**

The potential effects of the change in the point of diversion would affect the total volume of water flowing into the Colorado River from Parker Dam to the CVIDD diversion used by GSC Farm. Under the Partial Assignment and Transfer of 1,078.01 AFY Alternative, water could be diverted at the Mark Wilmer Pumping Plant at various times of the year, however, Queen Creek anticipates that water would be transported in most years to Queen Creek during April, May, June, July, and August. **Table 4** provides the anticipated volumes of flow during these months assumed for this analysis and percent reduction in the average monthly discharge at USGS Gage 09427520 below Parker Dam.

**Table 4. Anticipated Diversion Schedule for Partial Assignment and Transfer of 1,078.01 AFY Alternative and Expected Impacts to River Flows—Period of Record for USGS 09427520 1/1/1935 to 10/31/2021**

Month	Volume of Water Diverted at Mark Wilmer for Queen Creek (AF)	Average Reduction in Flow in the Colorado River between Parker Dam and the CVIDD Diversion Point (cfs)	Average Monthly Discharge USGS Gage #09427520 Colorado River Below Parker Dam (cfs)	Percent Reduction Average Monthly Discharge
January	0	0	8,850	0.000
February	0	0	10,400	0.000
March	0	0	12,700	0.000
April	200	3.36	13,600	0.025
May	200	3.25	13,000	0.025
June	200	3.36	14,100	0.024
July	239.005	3.89	14,500	0.027
August	239.005	3.89	13,200	0.029
September	0	0	11,700	0.000
October	0	0	9,810	0.000
November	0	0	8,570	0.000
December	0	0	8,360	0.000

Note: The volume of water pumped each month was assumed to be in proportion to the volumes provided by Queen Creek for the Proposed Action.

Under this alternative, 400.59 AFY would continue being returned to the river as agricultural return flows and approximately 429.7 AFY (see **Table 1**), the portion of GSC Farm’s current Arizona fourth priority Colorado River water entitlement that historically returned to the river as return flows, would continue to support biological functions associated with the river until diverted by others for use, in accordance with applicable law. Considering the minor impacts to river flow and the resulting potential for only negligible impacts to the habitats that support the special-status species determined to have potential to occur or are known to be present, effects of the Partial Assignment and Transfer of 1,078.01 AFY Alternative to special status species are not expected. For all species, the analysis of potential impacts from the Partial Assignment and Transfer of 1,078.01 AFY Alternative would be similar but less and in proportion to the reduced quantity of water diverted for the Proposed Action. As described in **Table 4**, the proposed flow reduction is minimal compared to the annual flow south of the Parker Dam and it is unlikely that the maximum reduction flow reduction of 0.024 to 0.029 percent of monthly average discharge below Parker Dam at the USGS Gage #09427520 below Parker Dam.



Diversions from the Colorado River in 2020 contributed to a net reduction in flow below Parker Dam of 455,422 AF on a consumptive use basis; these flow changes are accounted for and covered under the LCR MSCP's reduction in flow coverage of 1,574,000 AFY.

### **3.2.2.3 No Action Alternative**

Under the No Action Alternative, there would be no change in the point of diversion for GSC Farm's Arizona fourth priority Colorado River water entitlement and thus no impacts to the riverine ecosystem and flows that support that system. The current diversions would continue to be supported and adverse effects to listed species or resources would continue to be covered under the LCR MSCP.<sup>15</sup>

## **3.3 Socioeconomic Resources**

WestWater Research, LLC (WestWater) prepared the *Economic Impact Analysis: GSC Farm to Queen Creek Colorado River Water Right Transfer* (WestWater 2021) to support this EA. The analysis focused on the potential socioeconomic impacts of the Proposed Action and the No Action Alternative. An additional analysis was conducted for the Partial Assignment and Transfer of 1,078.01 AFY Alternative. Existing socioeconomic conditions described in this study are summarized in **Section 3.3.1**. The analysis conducted by WestWater evaluated potential effects of the alternatives on agricultural production by GSC Farm and its effect on total industry output (sales), income, and employment in the La Paz County economy and that of three other Arizona counties along the Colorado River, Mohave, La Paz, and Yuma, collectively the "On-River Region."

### **3.3.1 Affected Environment**

The GSC Farm property consists of 504 acres of land, 485 acres of which are actively farmed by Red River Farms, tenant farmers headquartered in Blythe, California. While the crop mix is expected to vary over time based on market and agronomic practices, the current mix is approximately 350 acres of alfalfa and 135 acres of cotton. Red River Farms actively farms over 10,000 acres, with approximately 7,500 acres under cultivation in the Palo Verde Irrigation District (PVID) in Riverside and Imperial counties, California and approximately 2,500 acres under cultivation in CVIDD in La Paz County, Arizona. Red River Farms employs approximately 40 full time employees, which includes accounting, office staff (who oversee operations in other areas of the country as well), mechanics, and other company employees that are not associated with one specific area (Pearce 2021a). Those working in the field or overseeing field workers generally work on multiple properties, and they would not be assigned solely to lands owned by GSC Farm or other Red River Farms properties.

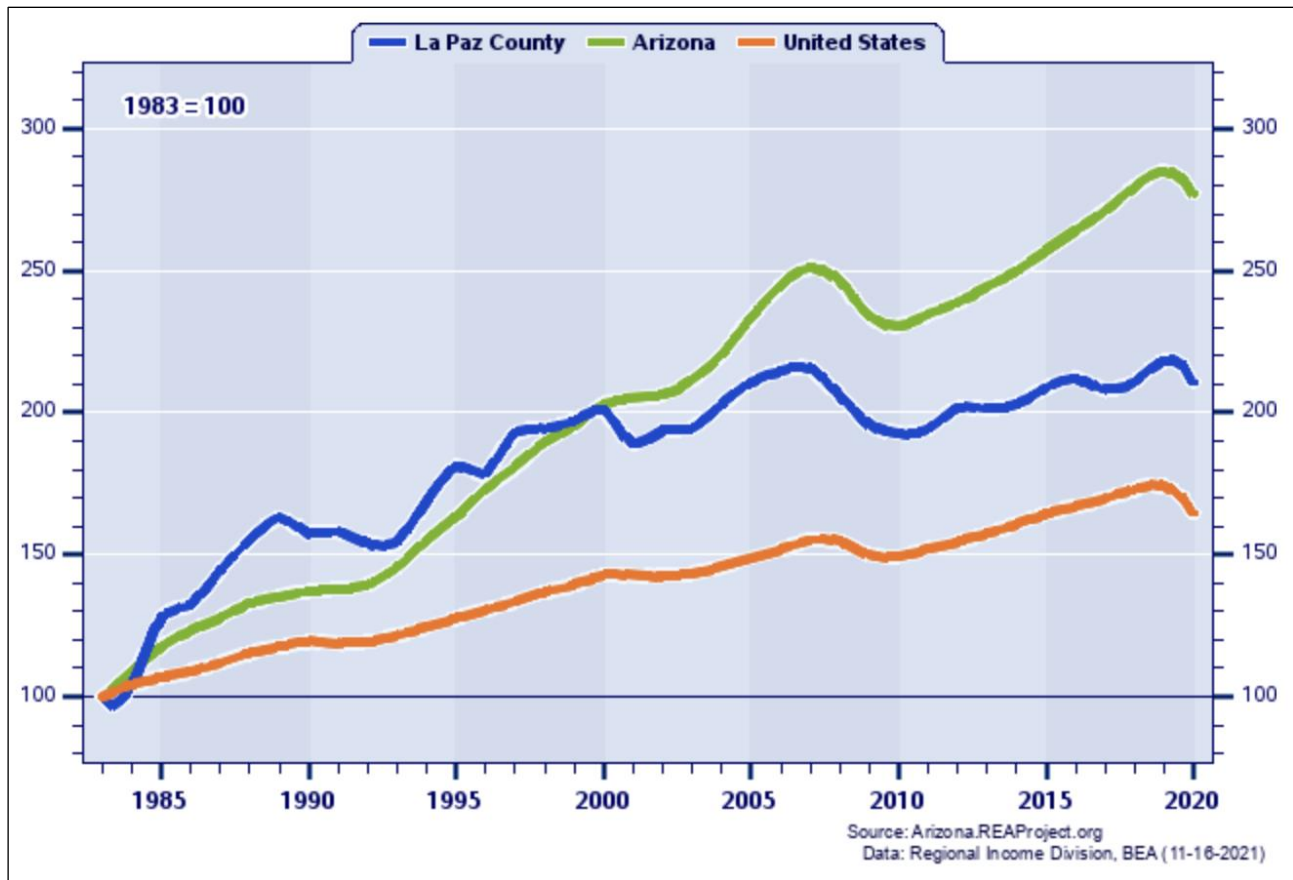
La Paz County comprises 4,500 square miles and has a population of 21,100 people. The main population centers are the towns of Parker and Quartzsite, where approximately one-third of the county's population reside. Five percent of the 4,500 square miles of La Paz County are privately held. Other entities owning or managing land within La Paz County include the Colorado River Indian Reservation (9 percent), the BLM (58 percent), the State of Arizona (9 percent), the Department of Defense (14 percent), and wildlife refuges managed by the USFWS (6 percent).

Tourism, government, and agriculture are the primary drivers of the La Paz County economy. Annual employment in La Paz County is estimated to consist of 8,300 full-time and part-time jobs. Total economic output is \$1.4 billion, and total economic output from farming industries is \$223 million

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<sup>15</sup> The No Action Alternative would not preclude GSC Farm from proposing future assignments, amendments, or other actions pursuant to the GSC Contract.

(15.9 percent) (WestWater 2021). **Exhibit 1** depicts the change in total employment in La Paz County relative to Arizona and the U.S. As shown, since its inception in 1983, La Paz County employment growth has outpaced U.S. growth but has not kept pace with employment growth in Arizona.



**Exhibit 1. Total Employment Indices (1983 = 100): 1983-2020**

This chart depicts La Paz County’s total employment growth compared to Arizona and the U.S. (Arizona Regional Economic Analysis Project 2022) The growth indices shown express each region’s total employment in 1983 as a base figure of 100 and total employment in subsequent years as a percentage of the 1983 base figure. This allows for direct comparison of differences in total employment growth between regions of different size. La Paz County’s overall total employment growth was 111 percent for this period compared to Arizona’s growth of 177.5 percent and the U.S. increase of 65 percent.

Employment data were not available for 2021 from the source used. La Paz County, Arizona, and the U.S. all show a marked drop in employment for 2020, presumably because of the COVID-19 pandemic. As reported in the *Wall Street Journal*, December 8, 2021 (Rubin 2021), the job gap has grown to two unemployed workers for every three openings. The unemployment rate in La Paz County in November 2021 was reported to be 3.5 percent by the U.S. Bureau of Labor Statistics, the lowest level reported for the span of record provided (1/1/1990 through 11/1/2021; U.S. Bureau of Labor Statistics 2022).

**Table 5** shows the top industries by total economic output for La Paz County. Based on La Paz County data from National Agricultural Statistics Service (NASS), hay (including alfalfa) is the primary crop represented in the IMPLAN industry identified as “all other crop farming.” Cotton farming,

which is part of GSC Farm’s current operations, ranks 27<sup>th</sup>, with \$8.9 million in output—less than 1 percent of total county economic output (WestWater 2021).

**Table 5. Top 5 Industries in La Paz County by Total Economic Output**

Industry	Total Output	Percent of County Output
All Other Crop Farming	\$ 169,373,800	12
Other Local Government Enterprises	\$ 134,771,900	10
Retail – Gasoline Stores	\$ 68,163,100	5
Wholesale – Petroleum and Petroleum Products	\$ 62,927,500	5
Employment and Payroll of Local Government and Other Services	\$ 59,659,000	4

Source: (WestWater 2021)

Agricultural commodity sales totaled \$160.2 million from a total of 97 farms within the county in 2017, the most recent NASS Census of Agriculture year. Farms with sales of \$500,000 or more contribute 96 percent of the total value of these sales. Of the 97 farms, 25 are operated by a full owner, 23 are operated by a part owner, and 49 are tenant operated (USDA NASS 2017, accessed online 10/2021). There are 399 hired on-farm workers in La Paz County. The primary crops grown in the county include hay, cotton, and wheat. Additionally, most farms in La Paz County are smaller than 1,000 acres. Approximately one-quarter of farms are 1,000 acres or more (USDA NASS 2017, accessed online 10/2021).

## On-River Region

The On-River Region comprises 23,326 square miles, nearly one quarter of the total land area in Arizona. Its population is approximately 450,000, or 6 percent of Arizona’s total population. Most of the land in the On-River Region is publicly owned.

Tourism, construction, trade, mining, and manufacturing are leading sectors in the Mohave County economy, while agriculture, government, and tourism are leaders in La Paz County. The two most important segments of the Yuma County economy are agriculture and military activities. Annual employment in the On-River Region is estimated to consist of 175,100 full-time and part-time jobs. Total economic output is \$25.8 billion. Economic output from farming totals \$1.5 billion, which is nearly half of Arizona’s total economic output from farming.

**Table 6** shows the top industries in the On-River Region by total economic output and in relation to the state of Arizona’s total output for that industry. These industries are responsible for nearly 25 percent of the total economic output in the On-River Region. Mohave County creates most of the output from hospitals and other real estate, while Yuma County creates most of the output from employment and payroll of the federal government and military, and vegetable and melon farming. Approximately 4 percent of the total economic output from the top industries in the On-River Region comes from La Paz County. Vegetable and melon farming in the On-River Region contributes over three quarters of the state’s total economic output for that industry. The other industries have a relatively small share of Arizona’s total output (WestWater 2021).

**Table 6. Top 5 Industries in On-River Region by Total Economic Output**

<b>Industry</b>	<b>Total Output</b>	<b>Percent of Arizona Output</b>
Hospitals	\$ 1,126,404,300	6
Employment and Payroll of Federal Government and Military	\$ 1,086,671,900	17
Vegetable and Melon Farming	\$ 999,553,000	78
Other Real Estate	\$ 990,113,900	3
Other Local Government Enterprises	\$ 873,165,800	8

Source: (WestWater 2021)

The On-River Region has a well-established and robust agricultural economy. Agricultural commodity sales exceeded \$1.3 billion from 870 farms within the region in 2017, the most recent NASS Census of Agriculture year. Farms making \$500,000 gross revenue or more contribute 98 percent of the total value of these sales. There are 133 farms (15 percent of the total number of farms) making \$500,000 or more. Most farms are smaller than 500 acres in size and are in Yuma County. There are 5,574 hired on-farm workers in the On-River Region, and 87 percent of those workers are hired in Yuma County. The primary crops grown are hay, vegetables, wheat, lettuce, and cotton.

### **3.3.2 Environmental Consequences**

#### **3.3.2.1 Proposed Action**

The transfer and the change in the point of diversion of 2,033.01 AFY from GSC Farm property to Queen Creek would require GSC Farm to fallow 485 acres of land currently in alfalfa and cotton production. This would reduce the economic output of La Paz County and the On-River Region of Arizona proportionately.

Red River Farms expects that it would not lay off any employees if it stops farming GSC Farm property affected by the transfer, although it did indicate that it is possible that one irrigator/tractor driver may have some reduced hours in the future because of the reduction of acreage under cultivation (Pearce 2021a). The approximate annual salary for this one irrigator/tractor driver would not exceed \$30,000.

To understand how the loss of agricultural production at GSC Farm associated with the Proposed Action would affect regional economic activity, WestWater (2021) completed an economic analysis of the estimated potential impacts to the La Paz County, the Arizona On-River Region, and Arizona economies as a result of economic output loss from the fallowing of 485 acres of GSC Farm property. To conduct the analysis, WestWater assumed as a worst-case scenario that two direct workers would lose their jobs because of the Proposed Action, which is more than twice the assumption made by Red River Farms. Red River Farms assumed \$30,000 per year per employee for salary and that the current crop mix would not vary significantly in the future. Using local crop pricing data, the annual sales from cotton are estimated at \$151,260, while the annual sales from alfalfa are estimated at \$528,650. A complete list of the assumptions used for modeling purposes can be found in WestWater 2021.

**Table 7** provides a summary of the annual economic impacts of the loss of agricultural production of 485 acres of GSC Farm property that would occur under the Proposed Action. This loss includes an additional 1.95 indirect and induced jobs in La Paz County. Based on the assumption that two Red River Farms employees would lose their jobs as well, a total of 3.95 jobs would be lost, which

represents \$143,000 in annual wages and \$903,500 in annual economic output in La Paz County (WestWater 2021).

Economic impacts in the Arizona On-River Region and Arizona are depicted in **Table 7**. The On-River Region specializes in alfalfa and cotton production, and thus has a relatively high yield and compensation rate per unit of output compared to the full-state average.

**Table 7. Annual Economic Impacts from the Loss of Agricultural Activities on the 485 Acres of GSC Farm Properties under the Proposed Action**

<b>Region</b>	<b>Impact Type</b>	<b>Employment (Count [% of Region])</b>	<b>Labor Income (2021 dollars [% by Region])</b>	<b>Value Added (2021 dollars [% by Region])</b>	<b>Output (2021 dollars [% by Region])</b>
La Paz County	Direct	2	\$ 55,300	\$ 344,900	\$ 679,900
	Indirect	1.74	\$ 79,100	\$ 109,300	\$ 185,900
	Induced	0.21	\$ 8,600	\$ 21,500	\$ 37,700
	<b>Total</b>	<b>3.95 (0.048)</b>	<b>\$ 143,000 (0.039)</b>	<b>\$ 475,700 (0.064)</b>	<b>\$ 903,500 (0.066)</b>
On-River Region	Direct	2	\$ 252,800	\$ 296,100	\$ 679,900
	Indirect	2.42	\$ 109,100	\$ 137,400	\$ 255,800
	Induced	1.4	\$ 62,900	\$ 119,200	\$ 209,400
	<b>Total</b>	<b>5.82 (0.003)</b>	<b>\$ 424,800 (0.005)</b>	<b>\$ 552,700 (0.004)</b>	<b>\$ 1,145,100 (0.004)</b>
Arizona	Direct	2	\$ 141,000	\$ 241,500	\$ 679,900
	Indirect	2.9	\$ 135,200	\$ 196,700	\$ 367,800
	Induced	1.68	\$ 85,700	\$ 157,100	\$ 271,900
	<b>Total</b>	<b>6.58 (0.0002)</b>	<b>\$ 361,900 (0.0002)</b>	<b>\$ 595,200 (0.0002)</b>	<b>\$ 1,319,600 (0.0002)</b>

Source: (WestWater 2021)

Note that the employment effects assumed by WestWater (2021) are greater than stated by Red River Farms by more than a factor of two; employment impacts should be considered a high estimate.

The WestWater analysis does not include an assessment of the potential benefit that would derive from development of approximately 80 homes on GSC Farm property. The timing, and thus the benefit, of future development of these lands cannot be ascertained with any certainty. Should the development activities contemplated by GSC Farm occur, benefits include the short-term economic gains derived from the jobs and other economic activity associated with site development and home construction and the ongoing property tax advantages that would be realized by the county.

**3.3.2.2 Partial Assignment and Transfer of 1,078.01 AFY Alternative**

The economic effects of the Partial Assignment and Transfer of 1,078.01 AFY Alternative would be approximately one-half of those estimated for the Proposed Action at the county, Arizona On-River Region, and state levels. The analysis is summarized in **Table 8** and based on the same assumptions used to model the potential economic effects of the Proposed Action Alternative (WestWater 2021).

Similar to the Proposed Action Alternative, low density residential development is contemplated to occur on the fields fallowed under the Partial Assignment and Transfer of 1,078.01 AFY Alternative.

Again, the timing and detail of potential development is unknown, and the economic benefits should development occur are expected to be the same as in the Proposed Action.

**Table 8. Annual Economic Impacts from the Loss of Agricultural Activities on the 485 Acres of GSC Farm Properties under the Partial Assignment and Transfer of 1,078.01 AFY Alternative**

<b>Region</b>	<b>Impact Type</b>	<b>Employment [Count (% of Region)]</b>	<b>Labor Income [2021 dollars (% by Region)]</b>	<b>Value Added [2021 dollars (% by Region)]</b>	<b>Output [2021 dollars (% by Region)]</b>
La Paz County	Direct	1	\$ 27,700	\$ 167,300	\$ 327,700
	Indirect	0.83	\$ 37,900	\$ 52,400	\$ 89,200
	Induced	0.1	\$ 4,200	\$ 10,500	\$ 18,400
	<b>Total</b>	<b>1.93 (0.023)</b>	<b>\$ 69,800 (0.019)</b>	<b>\$ 230,200 (0.031)</b>	<b>\$ 435,300 (0.032)</b>
On-River Region	Direct	1	\$ 122,900	\$ 143,800	\$ 327,700
	Indirect	1.15	\$ 52,300	\$ 65,900	\$ 122,800
	Induced	0.67	\$ 30,400	\$ 57,600	\$ 101,200
	<b>Total</b>	<b>2.81 (0.002)</b>	<b>\$ 205,600 (0.002)</b>	<b>\$ 267,300 (0.002)</b>	<b>\$ 551,600 (0.002)</b>
Arizona	Direct	1	\$ 69,000	\$ 117,500	\$ 327,700
	Indirect	1.37	\$ 64,800	\$ 94,300	\$ 176,500
	Induced	0.8	\$ 41,400	\$ 76,000	\$ 131,500
	<b>Total</b>	<b>3.17 (0.0001)</b>	<b>\$ 175,300 (0.0001)</b>	<b>\$ 287,700 (0.0001)</b>	<b>\$ 635,600 (0.0001)</b>

Source: (WestWater 2021)

Note that the employment effects assumed by WestWater (2021) are greater than stated by Red River Farms by more than a factor of two; employment impacts should be considered a high estimate.

### 3.3.2.3 No Action Alternative

Under the No Action Alternative, farming practices would continue on GSC Farm property and there would be no change in the current economic output from these operations.

## 3.4 Prime Farmlands

### 3.4.1 Affected Environment

As presented for Land Use in **Table 2**, GSC Farm property is currently zoned as RA-40: Rural Agricultural. RA-40 and other similar zoning categories. The La Paz County Comprehensive Plan (La Paz County 2005; accessed online 02/09/2022) designates Cibola, which encompasses GSC Farm property, as “Rural Community” which allows for a maximum development of 5 units per 1 acre. GSC Farm property is in agricultural production and a majority of the acreage is designated as prime farmland.

The Farmland Protection Policy Act (7 USC 4201-4209; FPPA), was enacted in 1981 “to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses and to assure that federal programs are administered in a manner that, to the extent practicable, will be compatible with State, unit of local government, and private programs and policies to protect farmland.” The term “farmland” includes land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with

minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland includes land that possesses the above characteristics but is being used to produce livestock and timber. It does not include land already in or committed to urban development or water storage.

La Paz County contains approximately 129,133 acres of prime or unique Farmland as designated by the U.S. Department of Agriculture (Soil Survey Staff 2022, accessed online 2/23/22). Approximately 479 acres (95 percent) of GSC Farm property is classified as prime farmland (**Figure 5**).

### **3.4.2 Environmental Consequences**

GSC Farm's private development plans, which include retiring prime farmland from agricultural production, would directly affect prime farmlands as identified by the Natural Resources Conservation Service (NRCS). The Proposed Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative would result in the fallowing of GSC Farm property for a loss of 479 acres of prime farmlands. This constitutes 0.4 percent of the prime farmland in La Paz County.

## **3.5 Environmental Justice**

This section analyzes the potential effects of the No Action and action alternatives on minority and low-income populations (Environmental Justice). The analysis is focused on the Cibola Valley community using the U.S. Census Bureau's Cibola Census-designated Place (CDP) and the Cibola census block relative to La Paz County and the state of Arizona. This environmental justice analysis has been conducted in accordance with CEQ guidance. Executive Order (E.O.) 12898, Federal Action to Address Environmental Justice in Minority Populations and Low-income Populations (February 11, 1994) mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

In accordance with E.O. 12898, this section of the EA presents the findings of the environmental justice analysis which has been performed in three steps:

- Step 1. Identify minority and/or low-income populations in the vicinity
- Step 2. Identify the anticipated impacts from implementation of the Proposed Action
- Step 3. Determine if the anticipated activity impacts would disproportionately, adversely impact the minority and/or low-income populations.

### **3.5.1 Affected Environment**

An analysis of demographic data was conducted to determine if low-income and minority populations are present within the vicinity of GSC Farm Property using the EPA's Environmental Justice Screening and Mapping Tool (EPA 2021[EJSCREEN]) to obtain census data for the Cibola census block (040120206022), La Paz County, and the state of Arizona. Because the analysis considers disproportionate impacts, two areas must be defined to facilitate comparison between the area actually affected and a larger regional area that serves as a basis for comparison and includes the area actually affected.

For this environmental justice analysis, the larger regional area is defined as the smallest political unit that includes the affected area and is called the community of comparison. Therefore, the community of comparison is Cibola CDP and the reference community selected is La Paz County. Data for the Cibola census block are provided for informational purposes only. This report follows the CEQ

guidance for the definition of minority and low-income populations. Based on the data collection methods implemented by the U.S. Census Bureau, race and ethnicity are considered separately.<sup>16</sup>

The identification of a community with potential environmental justice populations is defined by EPA as one that has a greater percentage of minority or low-income populations than an identified reference community. The standard for identifying minority populations is either: 1) the minority population of the affected area exceeds 50 percent; or 2) the minority population percentage of the affected area is “meaningfully greater” than the minority population percentage in the general population or other appropriate unit of geographic analysis, such as a reference community (CEQ 1997). The EPA has not specified what percentage of the population can be characterized as “meaningfully greater.” For the purposes of this analysis, it is assumed that if the affected area’s minority and/or poverty status population is 50 percent or 50 percent greater than the reference community, there is likely an environmental justice population of concern.

Demographic data for the Cibola census block, La Paz County, and Arizona are presented in **Table 9**. There are racial demographic categories, as defined by the U.S. Census Bureau, within the community of comparison, Cibola CDP, that are currently above the defined 50-percent threshold. There are racial demographic categories in Cibola CDP greater than the reference community, La Paz County. With regard to ethnicity, Cibola CDP has a population in which 62 percent of its residents identify as Hispanic or Latino (above the 50 percent threshold for populations) and is greater than the 27 percent of Hispanic or Latinos reported for La Paz County. Latinos are an ethnic minority requiring consideration under E.O. 12898.

**Table 9. Demographic Data for Cibola, La Paz County, and Arizona**

<b>Demographic</b>	<b>Subject</b>	<b>Cibola Census Block/Cibola CDP</b>	<b>La Paz County</b>	<b>Arizona</b>
<b>Population</b>	Total Population	549/355	20,701	7,278,717
	Households	238/276	8,912	2,670,441
<b>Low Income Population</b>		55%	51%	36%
<b>People of Color Population / Minority Populations</b>		51%	42%	45%
<b>Race and Ethnicity</b>	Hispanic or Latino of any Race	47%/62%	27%	32%
	White	49%/31%	58%	54%
	Black	0	1%	4%
	American Indian	0	11%	4%
	Asian	.02%/2.8%	1%	3%
	Pacific Islander	0	0	0
	Other Race	0	0	0
	Two or more Races	.02%/3%	2%	2%

Source: (U.S. Census 2019, accessed online 8/25/2021, EPA 2021, accessed online at EJSscreen 8/13/2021)

<sup>16</sup> In 1997 the Office of Management and Budget (OMB) published a set of standards that defines race and ethnicity (origin) as two separate entities (OMB 1997). Race, as defined by the U.S. Census Bureau, includes the following five categories at a minimum: "American Indian or Alaska Native," "Asian," "Black or African American," "Native Hawaiian or Other Pacific Islander," and "White." The U.S. Census Bureau states the following based on ethnicity, "Persons who report themselves as Hispanic can be of any race and are identified as such in our data..." The OMB standards define a minimum of two categories based on ethnicity, "Hispanic or Latino" and "Not Hispanic or Latino" (OMB 1997). The CEQ guidance defines a minority population as being of any of the five listed race categories with the exception of "White"; the CEQ also defines those of Hispanic or Latino ethnicity as being a minority population (CEQ 1997).



Poverty is an important indicator of economic well-being. For the purposes of this environmental justice analysis, a population is considered an environmental justice population if the total number of individuals living below poverty level, as defined by the U.S. Census Bureau, is 50 percent or more of a geographically defined area of analysis or 50 percent greater than the reference population percentage. Populations are considered low income if the income levels of those within a census block are less than or equal to twice the federal poverty level, with the federal poverty level determined by several factors including household size. Based on the information available, 55 percent of households within the Cibola census block are below the federal poverty level; therefore, there is an environmental justice population of concern to be considered in the analysis of impacts.

### 3.5.2 Environmental Consequences

Step 2 is to identify anticipated adverse effects of the Proposed Action, the No Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative. Key resource concerns identified during scoping and analyzed in more detail in this EA include socioeconomic conditions associated with the farming industry in the Cibola Valley and On-River Region (**Section 3.3.1**) and biological resources along the Colorado River (**Section 3.2**). Step 3 is to identify whether any of the effects identified under Step 2 result in disproportionately high and adverse effects to identified environmental justice populations.

Socioeconomic impacts were determined relatively small for the Proposed Action and Partial Assignment and Transfer of 1,078.01 AFY Alternative (**Tables 7 and 8**). While the model to determine economic impacts from the action alternatives have assumed that up to two individuals would lose their job if the acreage of agriculture at GSC Farm property is reduced from current levels, Red River Farms indicated that, at most, impacts would be less than one full-time employee on an annual basis. Red River Farms is the tenant farmer on GSC Farm property and operates on other farms in the area; its full-time employees work at multiple locations and thus are not dependent on specific farms.

Considering the nature of the Proposed Action or Partial Assignment and Transfer of 1,078.01 AFY Alternative and the economic trends in the region, Reclamation finds that there are no disproportionately high and adverse effects to the identified environmental justice populations resulting from implementation of the Proposed Action alternatives. Selection of either alternative by Reclamation would comply with E.O. 12898.

## 3.6 Cumulative Effects

As defined at 40 CFR Part 1508.7, a cumulative effect is the impact to the environment that 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. In this section, the context for the cumulative effects analysis is presented for each of the key issues. Past and present actions commonly influence the baseline conditions and trend of a resource, while reasonably foreseeable future actions can be expected to influence future trends. Collectively, information regarding past, present, and reasonably foreseeable future actions and the baseline conditions discussed throughout **Chapter 3** of this EA and in **Table 10** provide the context for the cumulative effects analysis. Reclamation is not aware of any other reasonably foreseeable proposals to transfer water rights from the Colorado River to central Arizona.

Biological resources, socioeconomic conditions, prime farmlands, and environmental justice were identified as key resources for analysis in this EA and are considered in this analysis of cumulative

effects. The direct and indirect effects of the alternatives considered in the EA are presented in the previous sections and the cumulative effects of each is discussed below. Past, present, and reasonably foreseeable future actions identified for consideration of cumulative effects are listed in **Table 10**.

**Table 10. Past, Present, and Reasonably Foreseeable Future Actions (RFFA) Considered in the Cumulative Effects Analysis**

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
Wheeling Contracts	<p>Section 103 of the Arizona Water Settlements Act (AWSA), Pub. L. 108-451, provides that, in accordance with the CAP Master Repayment Contract, the CAP may be used to transport Non-Project Water for certain purposes. The System Use Agreement sets forth procedures to enter wheeling contracts. Reclamation’s approval of a wheeling contract is a discretionary agency action and requires NEPA compliance.</p> <p>Three currently proposed wheeling contracts are presented below. However, because each proposed wheeling contract, including those listed below, is evaluated on its own merits through the procedures described in the CAP System Use Agreement, the Proposed Action does not provide environmental clearance for, represent a decision in principle about, nor imply approval of any other proposed wheeling contract.</p>
Harquahala Valley Water Project (HVWP)	<p>Harquahala Valley Water Project Management (HVWPM) proposes to develop infrastructure required to pump groundwater from the Harquahala Irrigation Non-Expansion Area and to convey the pumped groundwater through the CAP Canal for delivery to downstream entities. Collectively, the water system and its associated power and operations infrastructure is referred to as the HVWP. The average annual transportation volume for all phases of the HVWP would be approximately 60,000 AFY. The infrastructure for the HVWP would require ground disturbing construction which would impact approximately 790 acres of land. Due to the amount of land to be disturbed for the HVWP, the construction activities may result in loss of wildlife habitat in Maricopa County. This project would be constructed in phases and is not expected to coincide with the Proposed Action or Partial Assignment and Transfer of 1,078.01 AFY. Groundwater reserves would be adversely impacted in the Harquahala Valley area with implementation of HVWP.</p>
HVWP Town of Queen Creek Wheeling Agreement	<p>HVWPM and Queen Creek have entered contract negotiations for the purchase of up to 5,000 AFY of water from the HVWP. This water would be transported from the HVWP to the CAP canal, discharged and transported in the CAP canal to existing turnouts. Using this existing infrastructure, HVWP water would be delivered to existing Groundwater Savings Facilities (GSF). With authorization of this Wheeling Agreement, there would be less storage availability within Queen Creek’s GSFs, however, this action is not expected to exceed capacity in combination with the Proposed Action or Partial Assignment and Transfer of 1,078.01 AFY Alternative. Additionally, this proposal would reduce groundwater pumping for the Town of Queen Creek.</p>

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
City of Scottsdale Wheeling Agreement	The City of Scottsdale (Scottsdale) is proposing to extract groundwater from lands within the Harquahala Valley and use the CAP canal to convey this water to Scottsdale where it would be taken out of the canal at an existing turnout facility. Scottsdale has applied for a wheeling contract to use the CAP canal to wheel 3,000 AFY. This groundwater would be used to provide a long-term backup water supply as required under a Water Availability Status Agreement should excess CAP water no longer be available. It would be used as a non-potable water source to irrigate golf courses. Reclamation initiated an EA for this project on February 28, 2017, however the action was paused while water quality and wheeling procedures were developed. Groundwater reserves would be adversely impacted in the Harquahala Valley area with implementation of this project.
Vidler Water Company Wheeling Agreement	The Vidler Water Company has a proposal to wheel water in the CAP canal using the Vidler constructed turnout to return water from the Vidler Recharge Facility spreading basins to the CAP canal to a downstream user. Groundwater reserves would be adversely impacted in the Harquahala Valley area with implementation of this project.

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
<p>Proposed residential development on GSC Farm Properties in Cibola Valley (Pioneer Title Agency 2021)</p>	<p>Under either action alternative, GSC Farm has indicated that development could occur on some of the fallowed farm fields. It has conditionally recorded CC&amp;Rs that regulate the nature and type of future land uses and use of water associated with those land uses. GSC Farm could also choose to develop the land under the No Action Alternative.</p> <p>Under the Proposed Action, potential development would be limited to approximately 280 acres (La Paz County APNS 302-01-004,302-13-001-D: 80 and 302-13-002). The minimum lot size is five acres which would allow a maximum of 56 five-acre lots. Each of the lots would have a 0.5-acre building envelope, the remainder of the lot would be restricted and shall remain in a natural state. The CC&amp;Rs also prohibit irrigation on any part of a lot. The retired property (La Paz County APNs 302-01-011-A and 02-01-013) shall be dedicated as open space for natural habitat.</p> <p>Under the Partial Assignment and Transfer of 1,078.01 AFY Alternative, GSC Farm has indicated that some level of development could occur on the fallowed farmland, but the CC&amp;Rs as currently recorded would not go into effect.</p> <p>Based on current development and growth projects in La Paz County (Pollack 2020), the distance to the nearest services (22.5 miles to groceries in Blythe, CA) and the restrictions associated with the CC&amp;Rs, future development is not expected to occur quickly or have high absorption rates. Anticipated demand for residential development in the area is 43 lots over the next 35 years (Pollack 2020), so the maximum of 56 lots exceeds the expected demand for housing under the anticipated growth scenario.</p> <p>If development occurs, the residents could increase the number of recreational users along this reach of the Colorado River and in the vicinity of the Cibola NWR. Under the action alternatives, the loss of fallowed farmlands would result in some reduction of wildlife habitat, but this is substantially mitigated by the CC&amp;Rs and the building envelope restrictions that would preserve a substantial portion of each lot as open space. Current residential development in the general area of GSC Farm property is widely dispersed, generally comprised of clusters of mobile homes. This level of development that could occur under the action alternatives is not dissimilar in character. If fully developed this could add approximately 123 individuals to the Cibola CDP<sup>1</sup>, an approximately 34 percent increase.</p>

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
Commnet Broadband’s Proposed Broadband Project In La Paz County, Arizona (La Paz County Board of Supervisors 2022)	<p>Commnet Broadband has proposed to provide highspeed, fiber-based broadband internet service to unserved or underserved rural areas of La Paz County, in the communities of Quartzsite, Bouse, Salome, and Wenden including county facilities in those areas and in Parker. This will enhance the connectivity of Arizona citizens, businesses, healthcare institutions, government establishments, and the education sector, thereby improving economic conditions and quality of life in rural communities, such as La Paz County.</p> <p>This action will have a beneficial effect to the La Paz County community, providing better facilities for work and education. This will include minor construction which may impact wildlife and special-status species habitat.</p>
Rezoning in La Paz County – loss of agricultural lands	<p>Docket No. Z2022-002, La Paz County approval of a rezone from Rural Agricultural (RA) to Public Utility (PU) for 5,889.18 acres of APN 303-76-001B.</p> <p>This has a cumulative effect on the loss of agricultural lands in La Paz County. However, this is consistent with the La Paz County Comprehensive Plan.</p>
La Paz County Solar Energy and Job Creation Act (Kaster 2020)	<p>The La Paz County Solar Energy and Job Creation Act would convey 4,800 acres of BLM land to the 5,900 acres the county received from the La Paz County Land Conveyance Act. The land would be used for renewable energy development and allow the county to increase the size and capacity of its current solar energy project facilitated by the land conveyance bill that was passed in 2019.</p> <p>La Paz County signed an agreement with 174 Power Global to build a solar energy facility on 4,000 acres. At 850 megawatts, it will be the largest solar project in the nation. It’s estimated 800 to 1,000 construction jobs will be created, with the facility producing enough power for 300,000 homes. The location of the land is close to the proposed Ten West Link transmission line, which would allow the transmission of new generation to Phoenix and southern California.</p> <p>This action is expected to have a beneficial effect on socioeconomic resources in La Paz County by creating jobs and a new source of revenue for the county. Construction may impact previously undisturbed lands, thus, potentially impacting potential habitat for wildlife and special-status species.</p>

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
<p>Reauthorization of the Barry M. Goldwater Range Land Withdrawal and Proposed Gila Bend Addition Land Withdrawal (U.S. Department of the Air Force 2021)</p>	<p>The United States Air Force has determined that the military need for the Barry M. Goldwater Range (BMGR) will continue well beyond October 2024 and have asked Congress to reauthorize the range and expand it to include the Gila Bend Addition (approximately 2,366 acres of public land). These lands are used for:</p> <ul style="list-style-type: none"> <li>• An armament and high-hazard testing area,</li> <li>• Training for aerial gunnery, rocketry, electronic warfare, and tactical maneuvering and air support,</li> <li>• Equipment and tactics development and testing, and</li> <li>• Other defense related purposes.</li> </ul> <p>The reauthorization and expansion of BMGR would withdraw approximately 2,366 acres of land from the public domain which would have a beneficial effect on wildlife habitat.</p>
<p>Western Area Power Administration's (WAPA) Bouse Upgrade Project (U.S. Department of Energy 2022)</p>	<p>WAPA proposed to re-build, upgrade, and decommission components of the existing Parker-Davis Transmission System to improve overall system reliability, safety, and to better meet future transmission needs. The existing Parker-Headgate Rock and Parker-Bouse 161-kilovolt (kV) transmission lines, located along the Colorado River in La Paz County, Arizona and San Bernardino County, California, are part of the Parker-Davis Transmission System. This project includes:</p> <ul style="list-style-type: none"> <li>• Construction of an approximately 18-milelong, new, double-circuited, 230-kilovolt (kV) transmission line from WAPA's existing Parker-Liberty #2 Transmission Line to WAPA's existing Bouse Substation.</li> <li>• Expansion of WAPA's existing Bouse Substation by adding breakers, switches, a 230/160-kV transformer, and two 230-kV bays.</li> <li>• Connection of WAPA's existing Parker-Bouse 161-kV and Parker-Headgate Rock 161-kV transmission lines with a short, new transmission line segment called a jumper, which would complete a 161-kV circuit from Bouse Substation to the Headgate Rock Substation.</li> <li>• Decommission and removal of approximately 10- to 13-mile-long segments of the existing Parker-Bouse and Parker-Headgate Rock 161-kV transmission lines.</li> </ul> <p>Construction may impact previously undisturbed lands, thus, impacting potential suitable habitat for special-status species, however, transmission lines have a narrow footprint. This action is expected to have a positive impact on transmission capacity, efficiency, and system reliability.</p>

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
<p>2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead, 2019 Lower Basin Drought Contingency Plan (LBDCP; Arizona Water Banking Authority 2019), and Lower Colorado River Basin 500+ Plan (ADWR 2021)</p>	<p>The 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead and the LBDCP provide mechanisms that may reduce water deliveries and river flows because of shortage conditions or water conservation actions. In addition, river flows might be further reduced in implementing the 500+ Plan. The 500+ Plan is described in a Memorandum of Understanding signed in December 2021, in which the Lower Division States and Reclamation targeted 1,000,000 AFY of water during the period of 2022 through 2023 to be conserved and retained in Lake Mead through 2026.</p> <p>Continued long-term drought, water conservation activities, and any reductions in deliveries resulting from the LBDCP may reduce the availability of water within the Colorado River Basin for all uses including farming. Decreased water flows may impact the quality of habitat for special-status species. The extended drought conditions in the Colorado River watershed and the associated reductions of water stored in the Colorado River System in turn could affect the availability of water for diversion and use in any of the alternatives considered in this EA. Ongoing drought contingency planning and negotiated stakeholder responses to ongoing drought conditions in the Colorado River watershed would mitigate these impacts to the extent possible.</p>
<p>Pilot System Conservation Program in the Lower Basin (Pilot Program; Reclamation 2014)</p>	<p>The Pilot Program is expected to create 175,347 AF of system conservation in Lake Mead by 2035. By the end of calendar year 2019, 94 percent of the system conservation created by the Pilot Program, or 165,618 AF of system conservation was conserved in Lake Mead.</p> <p>Pilot Program system conservation will continue through 2035. In August 2021, Reclamation submitted a report to Congress titled "Pilot Projects to Increase Colorado River System Water in Lake Powell and Lake Mead" which evaluated the effectiveness of Pilot Program projects and recommended to Congress that system conservation program activities in the Colorado River Basin continue (Reclamation 2021).</p> <p>The widespread interest in system conservation activities and shared Pilot Program experience gained by Reclamation, state agencies, Local Funding Agencies, non-government organizations (NGOs), Colorado River water users, and tribes will serve as a platform for future collaboration on system conservation activities to help mitigate drought in the Colorado River Basin.</p> <p>The collaboration on system conservation activities may help to mitigate drought in the Colorado River Basin.</p>



<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
<p>LCR MSCP Actions (Reclamation 2021, LCR MSCP 2004a, 2004b)</p>	<p>Past, ongoing, and future actions under the LCR MSCP include riprap placement and maintenance, construction of haul roads, as well as various minor structural maintenance and construction along the Colorado River. Also included as a past, ongoing and future action under the LCR MSCP is stocking of Razorback Sucker (over 100,000 fish stocked into Reaches 4 and 5) and Bonytail (over 50,000 fish stocked into Reaches 4 and 5) into the Colorado River.</p> <p>Cibola Valley Conservation Area, Cibola NWR Unit #1, and the Palo Verde Ecological Reserve are all located within Reach 4. Within these conservation areas, Reclamation has and continues to plant trees and other plants to create riparian habitats for special-status species, as phased restoration. Reclamation re-vegetation activities will continue over the 50-year LCR MSCP life (beginning April 2004).</p> <p>Stocking of fish into the Colorado River maintains and increases fish populations. The ongoing rehabilitation of habitat within the NWRs along the Colorado River supports special-status species habitat and forage areas. The construction activities that have occurred and are proposed to occur are minor and projected to have negligible cumulative impacts on the resources listed.</p>
<p>2020 Flow Changes Below Parker Dam to Imperial Dam (as covered under the LCR MSCP) (Reclamation 2021)</p>	<p>Collectively, the actions contributed to a net reduction in flow below Parker Dam of 455,422 AF on a consumptive use basis, within the LCR MSCP reduction in flow coverage of 1.574 million AFY in the Parker Dam to Cibola Gage reach. The reduction in water flow within the reach of the Colorado River below Parker Dam cumulatively with the Proposed Action or Partial Assignment and Transfer of 1,078.01 AFY Alternative, will further reduce the water available between Parker Dam and the CVIDD diversion for special-status species and their habitats, but this reduction in flow will not exceed the reduction in flow coverage provided by the LCR MSCP</p>

<b>Past, Present, or RFFA</b>	<b>Description/Discussion</b>
<p>Transfer of Western Water, LLC's (Western Water) Colorado River Water Entitlement to Ehrenberg Improvement District (EID) (Reclamation 2020)</p>	<p>Approved in June 2020, the partial assignment and transfer of 85 AFY of Western Water's annual entitlement of Arizona fourth priority Colorado River water to EID, and Western Water's and EID's Colorado River water delivery contracts were amended to conform with this partial assignment and transfer. EID's Colorado River water entitlement increased from 650 AFY to 735 AFY. EID plans to supply the 85 AFY to CO River, LLC, for domestic use at a proposed resort-style recreational vehicle (RV) park known as "Legacy RV Park" on the 79 acres of land owned by CO River, LLC. The decision to provide water service to the RV park is under the jurisdiction of EID. EID will provide potable water to CO River, LLC from its existing surface diversion and extend delivery service to the RV park.</p> <p>CVIDD reduced deliveries to Western Water by 85 AFY. As a result of reduced deliveries, 14.17 acres, out of the 103.58 acres which Western Water irrigates in the Cibola Valley, transitioned from high water use crops such as alfalfa to low water use crops, likely drought tolerant trees watered by drip irrigation.</p> <p>Flow-related changes associated with the Western Water-EID transfer are cumulative when combined with either action alternative, in relation to deliveries to CVIDD. The transfer of Western Water to EID also resulted in a loss of agricultural lands along the Colorado River in La Paz County.</p>
<p>Global Climate Change</p>	<p>Global climate change has been identified as a contributor to drought conditions in the Colorado River watershed and resulting water shortages on the river and the increase in greenhouse gases in the atmosphere globally has been identified as the principal driver of global climate change. The extended drought conditions in the Colorado River watershed and the associated reductions in water stored in the Colorado River System in turn could affect the availability of water for diversion and use in any of the alternatives considered in this EA. Ongoing drought contingency planning and negotiated stakeholder responses to extended drought conditions in the Colorado River watershed may partially mitigate these impacts.</p>

<sup>1</sup> Based on 2.2 persons per dwelling in La Paz County (U.S. Census Bureau; accessed online 2/9/2022)

### 3.6.1 Biological Resources

The current baseline condition of the Colorado River is a reflection of all of the past and ongoing projects in the region. The river, while providing biological function, has been substantially altered by water control structures, bank revetment, and other river management features and as noted previously, the river is disconnected from the floodplain. Potential adverse impacts to riparian and aquatic habitats are not expected downstream of the CVIDD diversion under either action alternative and therefore would not contribute to cumulative impacts to the environment south of GSC Farm property. Impacts from the action alternatives considered are small in nature and extent and are limited to the reach of the river from Parker Dam downstream to the CVIDD point of diversion.

The broad cumulative effects include increased human water demands, increased development, loss of prime and unique farmlands, and a decline in agricultural land uses in La Paz County along the Colorado River. With global climate change impacting drought conditions, water could become increasingly scarce, especially when designated for wildlife benefit versus human development. The cumulative reduction in flows below Parker Dam due to the various projects along the lower Colorado River, including the projects that contribute to flow changes below Parker Dam to Imperial Dam (as covered under the LCR MSCP), the Transfer of Western Water Colorado River Water Entitlement to EID, the Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead, 2019 LBDCP (Arizona Water Banking Authority 2019), and Lower Colorado River Basin 500+ Plan (ADWR 2021), along with the overarching impact of global climate change, could result in localized loss of riparian and wetland vegetation and wildlife dependent on these habitats. However, the cumulative beneficial impacts creating and protecting water resources and habitat along the Colorado River as part of the LCR MSCP and the Pilot Program projects would offset some of these impacts. Overall, the cumulative impact of the Proposed Action or Partial Assignment and Transfer of 1,078.01 AFY Alternative on biological resources would be minimal.

Diversions from the Colorado River in 2020 contributed to a net reduction in flow below Parker Dam of 455,422 AF on a consumptive use basis; these flow changes are accounted for and covered under the LCR MSCP's reduction in flow coverage of 1,574,000 AFY. The actions considered in this EA do not result in a reduction in the volume of flows below Park Dam beyond what was contemplated and is covered by the LCR MSCP.

If residential development occurs, there would be an increase in the number of recreational users along this reach of the Colorado River and in the vicinity of the Cibola NWR. Under the Proposed Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative, the loss of fallowed farmlands would result in some reduction of wildlife habitat, but this is substantially mitigated by the CC&Rs and the building envelope restrictions that would preserve a substantial portion of each lot as open space. Current residential development in the general area of GSC Farm property is widely dispersed, generally comprised of clusters of mobile homes. The level of development that could occur under the action alternatives is not dissimilar in character. If fully developed, this could add approximately 123 individuals to the Cibola CDP<sup>17</sup>, an approximately 34-percent increase. Cumulatively, the impact of the proposed residential development on habitat with the Proposed Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative is minor.

Projects with construction components such as the HVWP, Commnet Broadband project, WAPA Bouse Upgrade and the La Paz County Solar Energy and Job Creation Act will cause disturbance to

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<sup>17</sup> Based on 2.2 persons per dwelling in La Paz County (U.S. Census Bureau; accessed online 2/9/2022)

vegetation communities along the Colorado River. The construction would potentially decrease forage areas and potentially suitable habitat for special-status species. During construction, there would be acute stress in the form of noise and land disturbance which may cause species within the vicinity to flee, and it is possible that the construction of these projects may result in take of special-status species. However, the Proposed Action and the Partial Assignment and Transfer of 1,078.01 AFY Alternative are not expected to have a discernable effect on the quality of habitat along the Colorado River so when cumulatively considered, the impact would be inconsequential.

The Queen Creek, City of Scottsdale, and Vidler Water Company proposed CAP Wheeling Agreements would not have a cumulative effect on any resources in the project area. These proposed Wheeling Agreements involve moving Non-Project Water through the CAP system and no additional construction that will impact potential habitat on the Colorado River is expected. These Wheeling Agreements will not have an effect on water availability along the Colorado River.

The No Action Alternative would not change the current point of diversion for agricultural activities at GSC Farm and would not contribute to a significant departure from the current state of river operations after consideration of reasonably foreseeable future actions.

Both action alternatives considered in this EA are covered activities under the LCR MSCP. There are numerous LCR MSCP restoration and mitigation activities that have occurred in the reach of the Colorado River downstream of Parker Dam (**Table 10**) to mitigate for adverse impacts to listed species and critical habitat.

### **3.6.2 Socioeconomic Effects**

As illustrated in **Section 3.3**, the direct and indirect socioeconomic effects of the federal action are small compared to the economies of the regions evaluated. Looking at economic trend data (employment growth and unemployment numbers for La Paz County), the adverse effects of either the Proposed Action or the Partial Assignment and Transfer of 1,078.01 AFY alternatives are not expected to result in a significant departure from the existing conditions and trends for the region. Agriculture would remain one of the largest employers in the region (Eccleston 2020). The reduction in flow between Parker Dam and the current CVIDD point of diversion is not expected to have any discernable impact on recreational use of this reach of the river; therefore, tourism (the other major economic driver in La Paz County) is not expected to be adversely affected by either action alternative. Notwithstanding the current position of the tenant farmer that no jobs would be lost, current unemployment data (**Exhibit 1**) indicate that that neither the Proposed Action nor Partial Assignment and Transfer of 1,078.01 AFY alternatives would result in any meaningful change in employment statistics in La Paz County or the Arizona On-River Region.

### **3.6.3 Prime Farmlands**

As a reasonably foreseeable future action, GSC Farm has proposed to develop approximately 280 acres, 268 of which is classified as prime farmlands. The development would convert prime farmland to residential homes and permanently remove this land from agriculture.

### **3.6.4 Environmental Justice**

The No Action Alternative would not change the on-going agricultural operations on GSC Farm property and agricultural production would continue at the current level; therefore, the No Action Alternative would not affect minority or low-income populations. The Proposed Action and Partial Assignment and Transfer of 1,078.01 AFY Alternative were determined to not have a

disproportionately high and adverse effect to the identified environmental justice populations. The impacts identified for the two action alternatives when combined with the past, present, and RFFAs described in **Table 12** could result in the loss of additional agricultural production within La Paz County. The potential of loss of jobs would be throughout the County and would continue a disproportionate, adverse impact to EJ populations within the Cibola CDP. Collectively, the potential housing opportunities in the Cibola Valley and implementation of the La Paz County Solar Energy and Job Creation Act could benefit minority or low-income populations.

# 4 Consultation and Coordination

## 4.1 List of Preparers

### 4.1.1 U.S. Department of the Interior, Bureau of Reclamation

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Lesli Kirsch, Economist  
Lauren Jelinek, Archaeologist  
Carol Evans, Biologist

### 4.1.2 WestLand Engineering & Environmental Services

Kimberly Otero, Project Manager/NEPA Specialist  
James Tress, Senior Technical Advisor  
Susan Gilbert, Senior Vice President/Discipline Service Lead  
Jocelyn Bernatchez, Cultural Resource Specialist  
Ron Van Ommeren, Sr, Biologist  
Samantha Blonder, Environmental Specialist  
Matthew Reynolds, GIS/Website Design

### 4.1.3 WestWater Research, LLC

Harry Seely, Principal  
Jessica Fox, Regional Director  
Audrey Arnao, Associate

## 4.2 Agencies Consulted

U.S. Fish and Wildlife Service (online)

Arizona Game and Fish Department (online)

Comments were solicited from interested parties including those who commented during the Arizona Department of Water Resources (ADWR) consultation process, which included several public meetings and extensive information provided on its website. Additional parties were identified by Reclamation, Queen Creek, and GSC Farm.

Project information was provided to the following stakeholders:

- Central Arizona Water Conservation District
- Mohave County Water Authority
- Yuma County

- Wellton-Mohawk Irrigation & Drainage District
- La Paz County
- Mohave County
- Arizona Farm Bureau Federation
- Yuma Irrigation District
- Greater Phoenix Economic Council
- Hassayampa Field Office Bureau of Land Management

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## Figures

# **Appendix A**

## **Newspaper Notices**

# **Appendix B**

**Bureau of Reclamation Press Release**

# **Appendix C**

## **Scoping Letter**

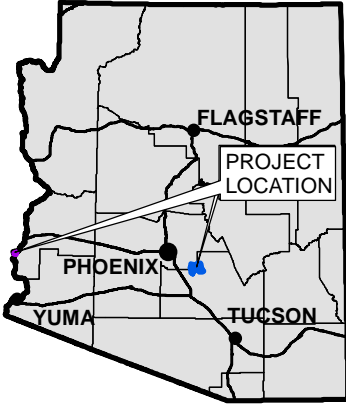
# **Appendix D**

## **List of Commenters**

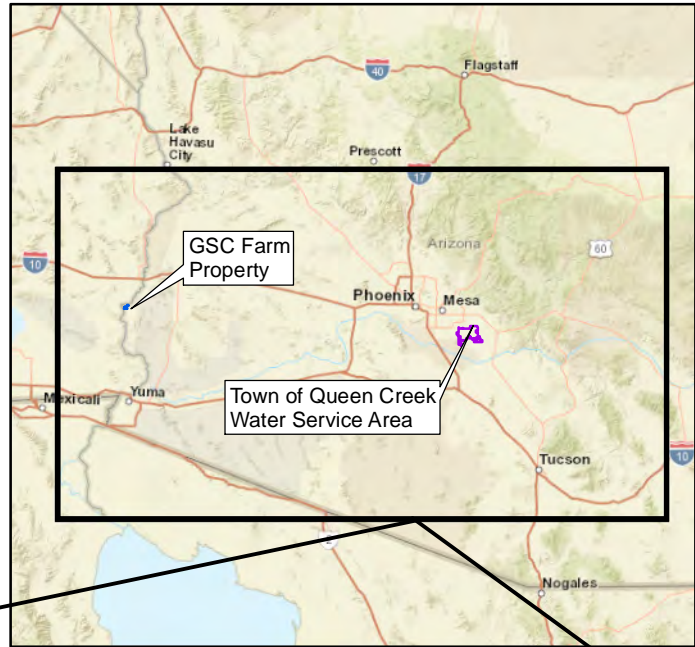
## Figures



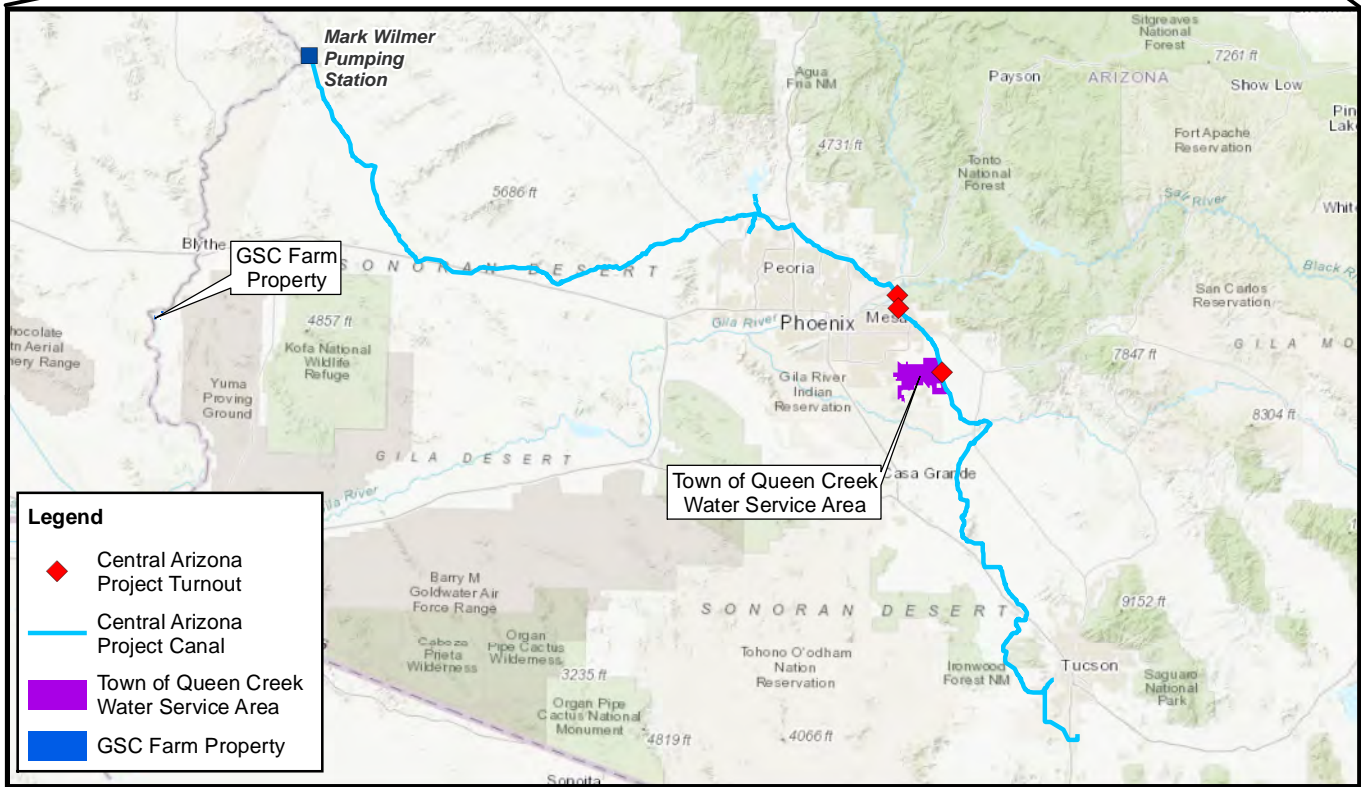
ARIZONA



PROJECT VICINITY



Approximate Scale 1 Inch = 100 Miles



**Legend**

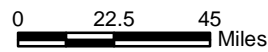
- ◆ Central Arizona Project Turnout
- Central Arizona Project Canal
- Town of Queen Creek Water Service Area
- GSC Farm Property

Portions of T1S, R8E, T2S, R6E-R8E, T3S, R7E-R8E, T1N23-24W, La Paz, Maricopa, and Pinal Counties, Arizona,  
 Data Source: Town of Queen Creek, AZWR (AZ Water Blueprint), U.S. Bureau of Reclamation Water Contract Service Areas (2015), and Lower Colorado River Multi-Species Conservation Program (2020),  
 Surface Management: BLM 2019  
 Image Source: ArcGIS Online World Topographic Map and World Street Map

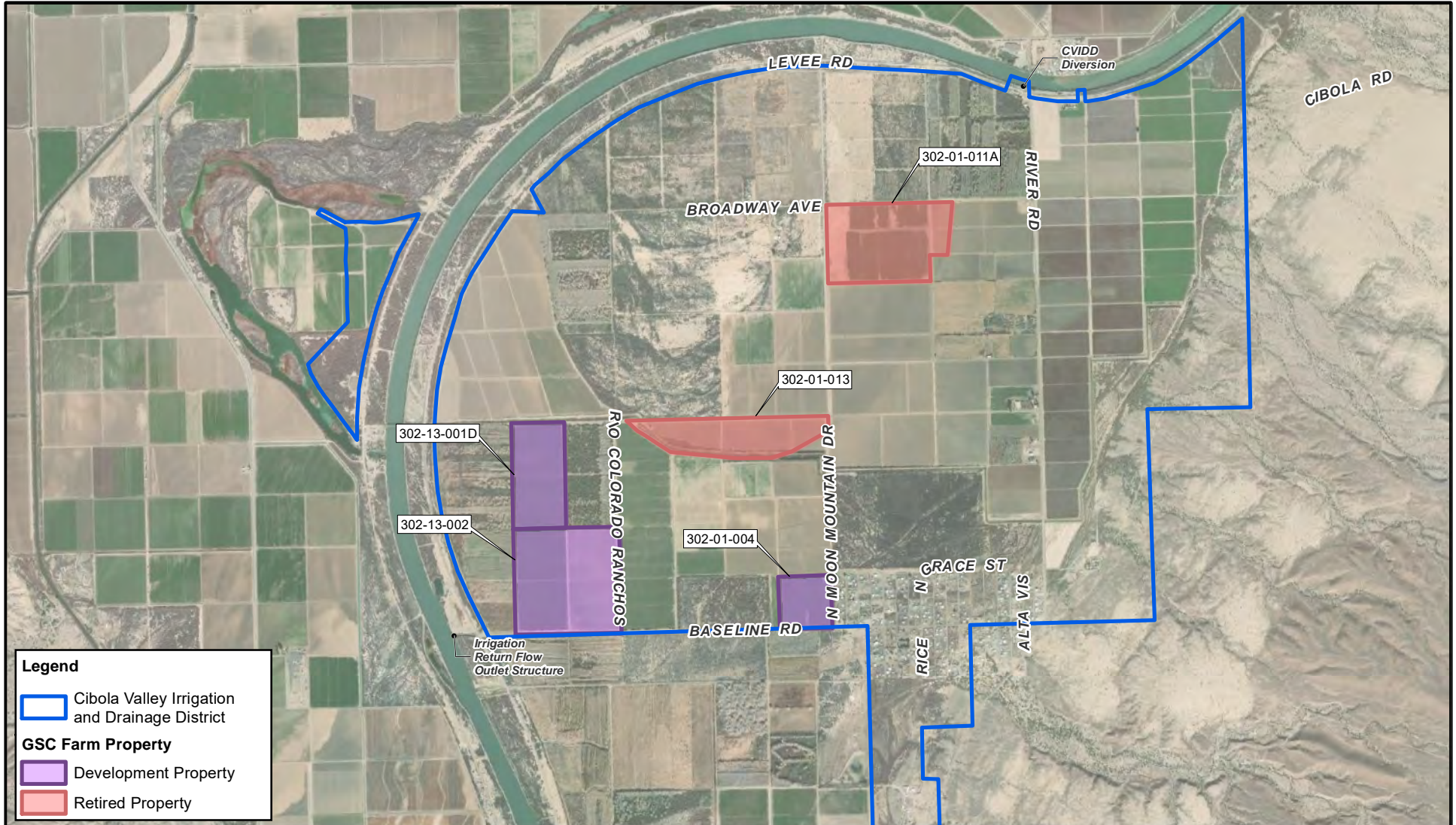
**BUREAU OF RECLAMATION**  
**GSC Farm-Queen Creek Water Transfer**  
**Environmental Assessment**

REGIONAL CONTEXT




Figure 1







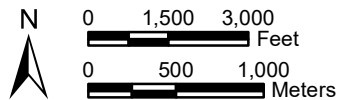
**Legend**

-  Cibola Valley Irrigation and Drainage District
- GSC Farm Property**
-  Development Property
-  Retired Property

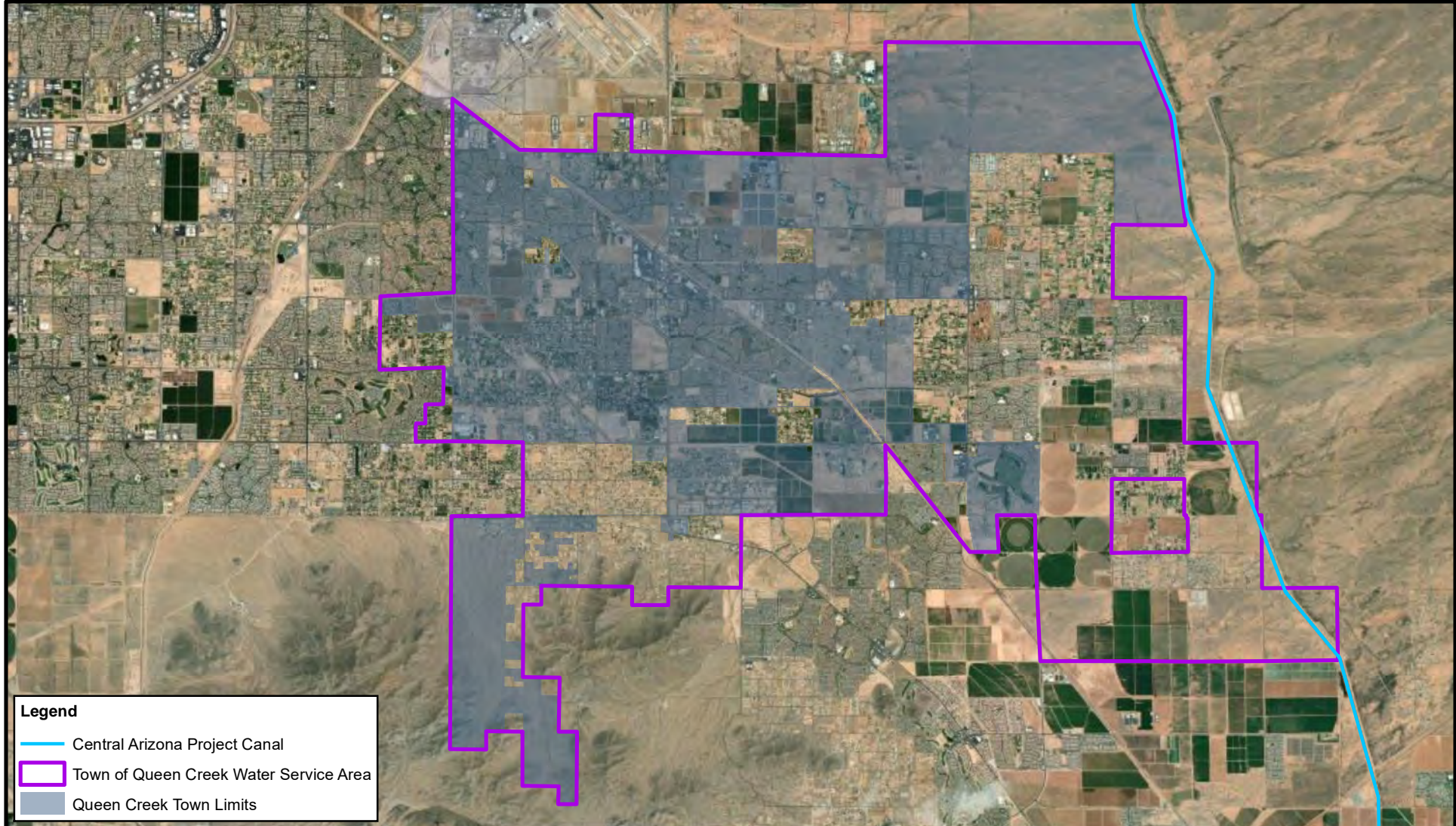
T1N, R24W, a Portion of Section 36,  
 T1N, R23W, Portions of Sections 29 and 31,  
 La Paz County, Arizona,  
 Data Source: AZWR (AZ Water Blueprint),  
 U.S. Bureau of Reclamation Water Contract Service Areas (2015)  
 Image Source: Maxer 2019

**BUREAU OF RECLAMATION**  
 GSC Farm – Queen Creek Water Transfer  
 Environmental Assessment

GSC FARM AERIAL  
 OVERVIEW MAP  
 Figure 2







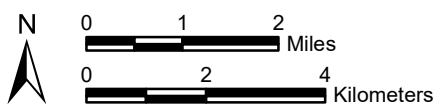
**Legend**

- Central Arizona Project Canal
- Town of Queen Creek Water Service Area
- Queen Creek Town Limits

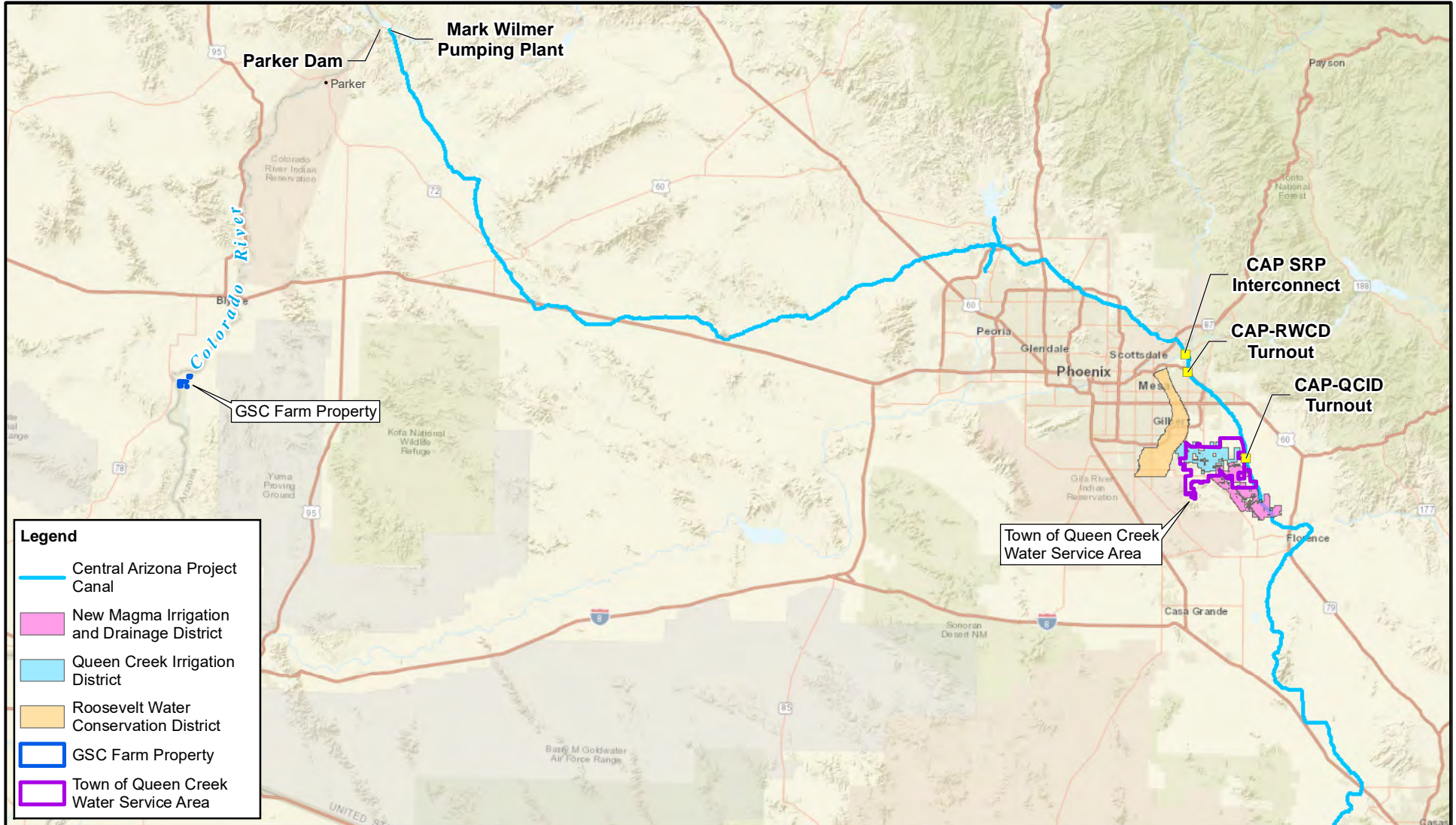
Portions of T1S, R8E, T2S, R6E-R8E, T3S, R7E-R8E,  
Maricopa and Pinal Counties, Arizona,  
Data Source: Town of Queen Creek  
Image Source: Maxer 2019

**BUREAU OF RECLAMATION**  
**GSC Farm – Queen Creek Water Transfer**  
**Environmental Assessment**

TOWN OF QUEEN CREEK  
AERIAL OVERVIEW MAP  
Figure 3



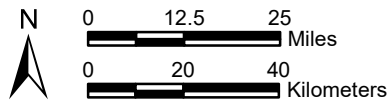


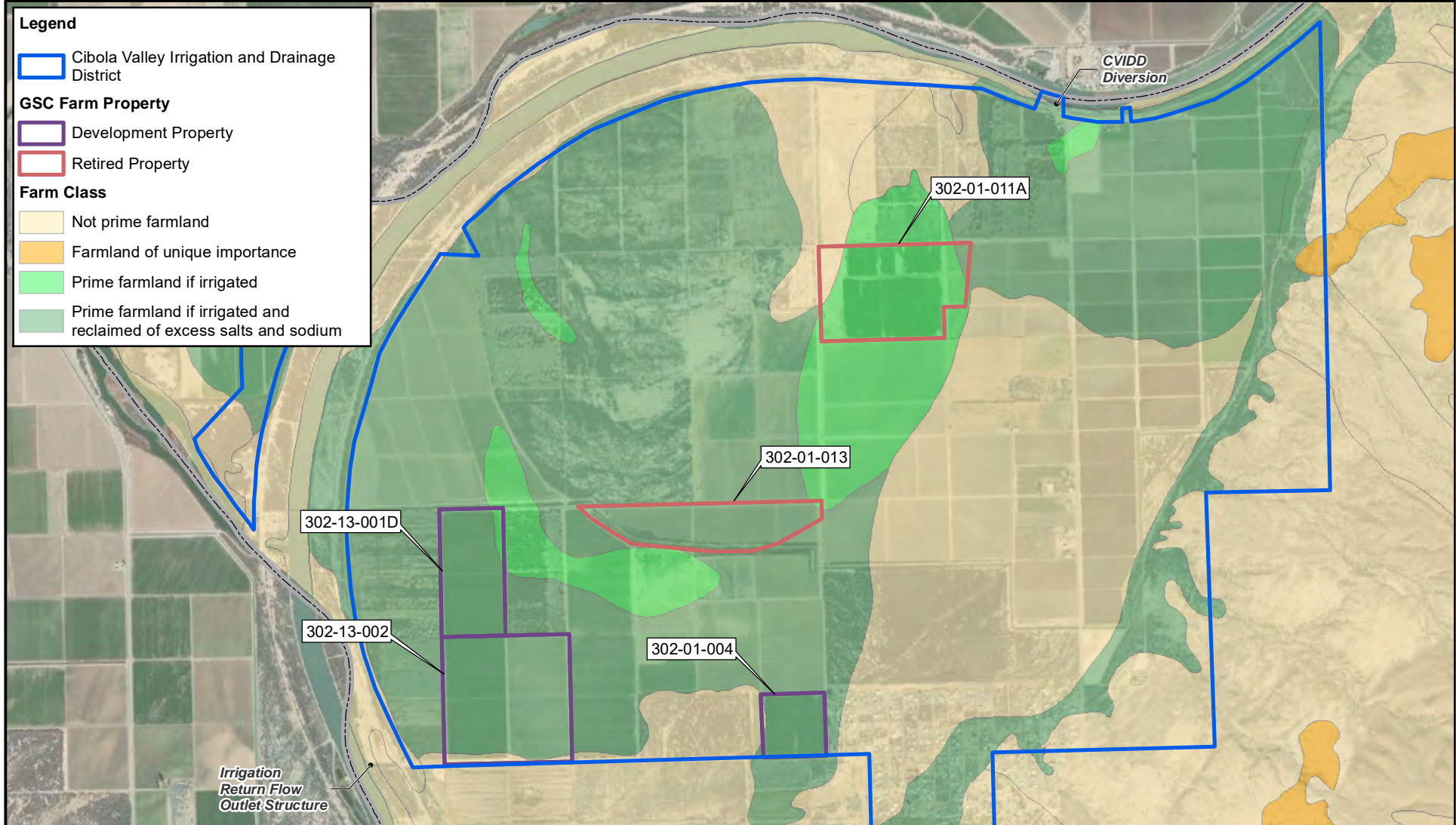


T1N, R24W, a Portion of Section 36,  
 T1N, R23W, Portions of Sections 29 and 31,  
 La Paz County, Arizona,  
 Data Source: AZWR (AZ Water Blueprint),  
 U.S. Bureau of Reclamation Water Contract Service Areas (2015)  
 Image Source: ArcGIS Online World Street Map

**BUREAU OF RECLAMATION**  
**GSC Farm – Queen Creek Water Transfer**  
**Environmental Assessment**

**GSC FARM WATER**  
**CONVEYANCE SYSTEM MAP**  
 Figure 4

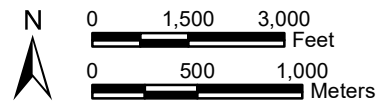




T1N, R24W, a Portion of Section 36,  
 T1N, R23W, Portions of Sections 29 and 31,  
 La Paz County, Arizona,  
 Data Source: AZWR (AZ Water Blueprint),  
 U.S. Bureau of Reclamation Water Contract Service Areas (2015)  
 Prime Farmland: USDA SSURGO Farmland Class  
 Image Source: Maxer 2019

**BUREAU OF RECLAMATION**  
**GSC Farm – Queen Creek Water Transfer**  
**Environmental Assessment**

**PRIME FARMLANDS**  
 Figure 5



# **Appendix A**

## **Newspaper Notices**



# The Parker Pioneer

**Notice of Public Scoping for Preparation of an Environmental Assessment (EA) on the Proposed GSC Farm, LLC (GSC Farm) – Town of Queen Creek (Queen Creek) Partial Assignment and Water Transfer, La Paz and Maricopa Counties, Arizona**

**PROJECT:**

The Bureau of Reclamation is conducting public scoping, in accordance with the National Environmental Policy Act (P.L. 91-190), as amended, to evaluate the potential for environmental impacts as part of the review process related to the proposed partial assignment and water transfer from GSC Farm to Queen Creek (Project). The proposed action includes the partial assignment and transfer of 2,033.01 acre-feet per year (AFY) of GSC Farm's Arizona fourth priority Colorado River water entitlement to Queen Creek. Queen Creek has a Central Arizona Project (CAP) municipal and industrial water subcontract for 495 AFY with the United States and the Central Arizona Water Conservation District. To convey a Colorado River water entitlement on the mainstream to its service area in central Arizona, Queen Creek would need a CAP wheeling agreement. The proposed partial assignment and transfer would entail a change in the place of use (from GSC Farm located in the Cibola Valley Irrigation and Drainage District to Queen Creek), change in the type of use (from agricultural to domestic), and change in the point of diversion from the Cibola Valley Irrigation and Drainage District to the Mark Wilmer Pumping Plant for conveyance through the CAP to Queen Creek. Under the proposed action, pursuant to the Boulder Canyon Project Act of 1928, Reclamation, on behalf of the United States, would approve the partial assignment and transfer of 2,033.01 AFY of Arizona fourth priority Colorado River water between GSC Farm and Queen Creek, enter into a new Colorado River water delivery contract to Queen Creek, amend the existing Colorado River water delivery contract between the United States and GSC Farm, and enter into a federal wheeling contract authorizing the conveyance of Queen Creek's Colorado River water entitlement through the CAP.

**DATES:**

The public will have the opportunity to participate in Reclamation's scoping process by providing scoping comments via mail, email, or web-based comment during the 30-day NEPA scoping period from August 25, 2021, to September 24, 2021.

**PROJECT INFORMATION:**

Project Information and Directions on Submitting Comments can be found online at <https://www.gscfarmqckwatertransfer.com>

Additional project information can be found online at: [https://www.usbr.gov/cr/region/programs/ProposedAction\\_ISC\\_QC.html](https://www.usbr.gov/cr/region/programs/ProposedAction_ISC_QC.html)

**CONTACT:**

For additional information regarding this notice, please contact Sean Heath at Reclamation's Phoenix Area Office, via email at [sheath@usbr.gov](mailto:sheath@usbr.gov).  
Publish: 8-25-2021

6650





# THE ARIZONA REPUBLIC

PO Box 194, Phoenix, Arizona 85001-0194

Phone 1-602-444-7315

Fax 1-877-943-0443

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PNI-Arizona Republic

## AFFIDAVIT OF PUBLICATION

**WESTLAND RESOURCES  
4001 E PARADISE FALLS DR  
TUCSON, AZ 85712**

Notice of Public Scoping for Preparation of an Environmental Assessment (EA) on the Proposed GSC Farm, LLC (GSC Farm) - Town of Queen Creek (Queen Creek) Partial Assignment and Water Transfer, La Paz and Maricopa Counties, Arizona

**PROJECT:**  
The Bureau of Reclamation is conducting public scoping, in accordance with the National Environmental Policy Act (P.L. 91-190), as amended, to evaluate the potential for environmental impacts as part of the review process related to the proposed partial assignment and water transfer from GSC Farm to Queen Creek (Project). The proposed action includes the partial assignment and transfer of 2,033.01 acre-feet per year (AFY) of GSC Farm's Arizona fourth priority Colorado River water entitlement to Queen Creek. Queen Creek has a Central Arizona Project (CAP) municipal and industrial water subcontract for 495 AFY with the United States and the Central Arizona Water Conservation District. To convey a Colorado River water entitlement on the mainstream to its service area in central Arizona, Queen Creek would need a CAP wheeling agreement. The proposed partial assignment and transfer would entail a change in the place of use (from GSC Farm located in the Cibola Valley Irrigation and Drainage District to Queen Creek), change in the type of use (from agricultural to domestic), and change in the point of diversion from the Cibola Valley Irrigation and Drainage District to the Mark Wilmer Pumping Plant for conveyance through the CAP to Queen Creek. Under the proposed action, pursuant to the Boulder Canyon Project Act of 1928, Reclamation, on behalf of the United States, would approve the partial assignment and transfer of 2,033.01 AFY of Arizona fourth priority Colorado River water between GSC Farm and Queen Creek, enter into a new Colorado River water delivery contract to Queen Creek, amend the existing Colorado River water delivery contract between the United States and GSC Farm, and enter into a federal wheeling contract authorizing the conveyance of Queen Creek's Colorado River water entitlement through the CAP.

**DATES:**  
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**PROJECT INFORMATION:**  
Project Information and Directions on Submitting Comments can be found online at:  
<https://www.gscfarmackwatertransfer.com>

Additional project information can be found online at: [https://www.usbr.gov/lc/region/programs/ProposedAction\\_GSC\\_QC.html](https://www.usbr.gov/lc/region/programs/ProposedAction_GSC_QC.html)

**CONTACT:**  
For additional information regarding this notice, please contact Sean Heath at Reclamation's Phoenix Area Office, via email at [sheath@usbr.gov](mailto:sheath@usbr.gov).  
Pub: Aug. 25, 2021

**This is not an invoice**

Order # 0004878807 # of Affidavits 1

P.O #

Published Date(s):

08/25/21

**STATE OF WISCONSIN } SS.  
COUNTY OF BROWN }**

I, being first duly sworn, upon oath deposes and says: That I am the legal clerk of the Arizona Republic, a newspaper of general circulation in the counties of Maricopa, Coconino, Pima and Pinal, in the State of Arizona, published weekly at Phoenix, Arizona, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates indicated.

*Denise Roberts*

Sworn to before me this

25 TH day of  
AUGUST 2021

*Vicky Felty*

Notary Public

9/9/21

My Commission expires: \_\_\_\_\_

VICKY FELTY  
Notary Public  
State of Wisconsin

# **Appendix B**

**Bureau of Reclamation Press Release**

Reclamation Press Release (<https://www.usbr.gov/newsroom/#/news-release/3964>)

Reclamation announces public scoping for the proposed transfer of water from GSC Farm, LLC to the Town of Queen Creek

*Public Scoping period open for submission of comments*

Media Contact: Patti Aaron 702-293-8189 [paaron@usbr.gov](mailto:paaron@usbr.gov)

Doug Hendrix 702-293-8391 [dhendrix@usbr.gov](mailto:dhendrix@usbr.gov)

For Release: Aug 25, 2021

**PHOENIX** - The Bureau of Reclamation announced today its intent to gather information necessary for preparing an Environmental Assessment (EA) evaluating the effects of the proposed assignment and transfer of water from GSC Farm, LLC (GSC Farm) to the Town of Queen Creek (Queen Creek). The proposed action includes the partial assignment and transfer of 2,033.01 acre-feet per year (AFY) of GSC Farm's Arizona fourth priority Colorado River water entitlement to Queen Creek. Queen Creek has a Central Arizona Project (CAP) municipal and industrial water subcontract for 495 AFY with the United States and the Central Arizona Water Conservation District.

To convey a Colorado River water entitlement on the mainstream to entities within its service area in central Arizona, requires that Queen Creek have a CAP wheeling contract. The proposed partial assignment and transfer would entail a change in the place of use (from GSC Farm located in the Cibola Valley Irrigation and Drainage District to Queen Creek), change in the type of use (from agricultural to domestic), and change in the point of diversion from the Cibola Valley Irrigation and Drainage District to the Mark Wilmer Pumping Plant for conveyance through the CAP to Queen Creek.

Under the proposed action, pursuant to the Boulder Canyon Project Act of 1928, Reclamation, would enter into a new Colorado River water delivery contract with Queen Creek, amend the existing Colorado River water delivery contract between Reclamation and GSC Farm, and enter into a new federal wheeling contract authorizing the conveyance of Queen Creek's Colorado River water entitlement through the CAP.

The public will have the opportunity to participate in Reclamation's scoping process by providing scoping comments via mail, email or web-based comment during the 30-day NEPA scoping period. Written comments on the scope of the EA will be accepted through close of business September 24, 2021, and should be submitted to: Bureau of Reclamation, (ATTN: GSC-QC Water Transfer EA), 6150 West Thunderbird Road, Glendale, Arizona 85306, or emailed to: [proposedwatertransfer@usbr.gov](mailto:proposedwatertransfer@usbr.gov), or submitted online through: [www.gscfarmqckwatertransfer.com](http://www.gscfarmqckwatertransfer.com).

###

The Bureau of Reclamation is a federal agency under the U.S. Department of the Interior and is the nation's largest wholesale water supplier and second largest producer of hydroelectric power. Its facilities also provide substantial flood control, recreation opportunities, and environmental benefits. Visit our website at [www.usbr.gov](http://www.usbr.gov) and follow us on Twitter [@USBR](https://twitter.com/USBR).

[Public Comment Link](#)

# **Appendix C**

## **Scoping Letter**



# United States Department of the Interior



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

IN REPLY REFER TO:  
PXAO-1500  
2.1.4.17

VIA ELECTRONIC MAIL ONLY

## Memorandum

To: All Interested Persons, Organizations, and Agencies

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

Digitally signed by  
LESLIE MEYERS  
Date: 2021.08.23  
14:26:37 -07'00'

Subject: Notice of Public Scoping for Preparation of an Environmental Assessment (EA) on the Proposed GSC Farm, LLC – Town of Queen Creek Water Partial Assignment and Transfer – La Paz, Pinal, and Maricopa Counties, Arizona (Action by September 24, 2021)

The Bureau of Reclamation is preparing an Environmental Assessment (EA) describing the potential impacts from the Town of Queen Creek's (Queen Creek) proposed GSC Farm, LLC – Queen Creek water partial assignment and transfer. GSC Farm, LLC (GSC Farm) has an entitlement to an annual diversion of up to 2,913.3 acre-feet of Arizona fourth-priority mainstream Colorado River water for irrigation use within GSC Farm's contract service area. GSC Farm's total consumptive use of its entitlement is 2,083.1 acre-feet per year (AFY). GSC Farm's entitlement is authorized under the Contract for the Delivery of Colorado River Water for Use in Arizona, between GSC Farm and the United States of America, Contract No. 13-XX-30-W0571, dated December 23, 2013, and as amended by Amendment No. 1 dated December 3, 2014 (collectively, the GSC Contract). GSC Farm's water entitlement is presently used to irrigate approximately 485 acres of farmland, owned by GSC Farm, located within the Cibola Valley Irrigation and Drainage District in La Paz County, Arizona.

On December 17, 2018, GSC Farm and Queen Creek entered into a purchase and transfer Agreement for a Mainstream Colorado River Water Entitlement providing for the partial assignment and transfer of GSC Farm's Arizona fourth-priority Colorado River water entitlement to Queen Creek to aid in providing resiliency and stability for Queen Creek's long-term municipal water needs. GSC Farm and Queen Creek submitted to the Arizona Department of Water Resources (ADWR) a request for consultation for the proposed partial assignment and transfer. When a non-federal Arizona Colorado River water entitlement holder desires to transfer its Colorado River water entitlement, they must cooperate, confer with, and obtain the advice of the director of ADWR in accordance with A.R.S. § 45-107(D). Pursuant to A.R.S. § 45-107(A), ADWR consults, advises and cooperates with the Department of the Interior

**INTERIOR REGION 8 • LOWER COLORADO BASIN**

ARIZONA, CALIFORNIA\*, NEVADA\*

\* PARTIAL

regarding the proposal, and on September 4, 2020, the Arizona Department of Water Resources (ADWR), recommended approval of the partial assignment and transfer of 1078.01 AFY of GSC Farm's entitlement to Queen Creek on a consumptive use basis. ADWR issued a supplement on January 20, 2021, modifying its recommended transferrable volume to 2,033.01 AFY and recommending that GSC Farm retain 50 AFY of consumptive use of its Arizona fourth priority Colorado River water entitlement for future use on the land owned by GSC Farm.

### **Proposed Action**

Under the proposed action, Reclamation would approve: (1) the partial assignment and transfer of 2,033.01 AFY of Arizona fourth priority Colorado River water between GSC Farm and Queen Creek; (2) a Colorado River water delivery contract between the United States and Queen Creek for the 2,033.01 AFY; (3) an amendment of the existing Colorado River water delivery contract between GSC Farm and the United States to reduce GSC Farm's Arizona fourth priority Colorado River water entitlement to 69.93 AFY for domestic use; and (4) a Wheeling Contract with Queen Creek to wheel the 2,033.01 AFY to the Queen Creek service area.

Queen Creek proposes to use existing infrastructure to divert and convey the transferred water, and no ground disturbing activities are planned to occur. The mainstream water assigned and transferred to Queen Creek would be diverted at the Mark Wilmer Pumping Plant and transported via the Central Arizona Project (CAP) to one or more existing Groundwater Savings Facilities (GSFs). Three potential GSFs in the Queen Creek service area have been identified for use by Queen Creek. All are served by existing turnouts from the CAP and no new infrastructure would be required to deliver the water to any one of these GSFs.

Reclamation has determined that an EA is the appropriate level of review under NEPA. The purpose of an EA is to allow the Bureau of Reclamation to determine whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI). The EA will evaluate the impacts of the Proposed Action on the human and natural environments. As part of this EA process, Reclamation is seeking your participation in identifying any potential issues with or effects of the proposed action. Comments should be submitted to: Bureau of Reclamation, ATTN: GSC-QC Water Transfer EA, 6150 West Thunderbird Road, Glendale, Arizona, 85306, or via email to: [proposedwatertransfer@usbr.gov](mailto:proposedwatertransfer@usbr.gov), or submitted online through: [www.gscfarmqckwatertransfer.com](http://www.gscfarmqckwatertransfer.com), no later than September 24, 2021.

For additional project information and directions on submitting comments, please visit the website: <https://www.gscfarmqckwatertransfer.com/>.

For additional information regarding this memorandum, please contact Sean M. Heath, Reclamation's Phoenix Area Office, Environmental Resource Management Division Manager, via email at [sheath@usbr.gov](mailto:sheath@usbr.gov).

Please be aware that by law, your name, address, and other personal identifying information may be made publicly available at any time. You may request that your personal identifying

information be withheld from public review by stating so prominently at the beginning of your comment. We cannot guarantee that we will be able to do so; however, we will honor your request to the extent allowable by law. All comments from organizations or businesses will be available for public inspection in their entirety.

# **Appendix D**

## **List of Commenters**



## Appendix D. List of Commenters

First Name	Last Name	Organization	Title	City	State
Christina	Ashelford	Public		Kingman	AZ
Bruce	Babbitt	Public		Washington	DC
Erik	Bagger	Public		Topock	AZ
Jeremy	Baker	Yuma Orthodox Presbyterian Churchand Yuma Resident	Reverend	Yuma	AZ
Reginald	Bale	Public		Cibola	AZ
Eileen	Barnes	Public		Mohave Valley	AZ
Robert	Bathurst	Public		Lake Havasu City	AZ
Camilla	Baycroft	Public		Yuma	AZ
Daniel	Berg	Public			
Frank	Bergwall	Public		Yuma	AZ
Frank	Bergwall	Public		Yuma	AZ
Scott	Blitz	Town Councilmember Town ofWellton, Arizona		Wellton	AZ
Eleanor	Bohus	Public		Bullhead City	AZ
Mike	Borup	Public		Fort Mohave	AZ
P	Bren	Public			
Jamie	Burnes	Public			
Patricia	Bussing	Public		Cibola	AZ
Gayle	Butler	Public		Topock	AZ
Georgia	Carman	Public		Yucca	AZ
Africa	Carrasco	Yuma Crossing National Heritage Area	ExecutiveAssistant	Yuma	AZ
Henri	Carter	Public		Yuma	AZ
Mark	Clark	Mohave County Water Authority	Chairman	Bullhead City	AZ
Schuyler	Clark	Public		Kingman	AZ
Barbara	Debarr	Public		Bullhead City	AZ
Jeanyne	DeMuth	Public		Martinez Lake	AZ
Anne	Dorre	Public		Kingman	AZ
Donna	Doucette	Public		Palo Verde	CA
Pamela	Drapala	Public		Yuma	AZ
Ed	Duber	Public		Phoenix	AZ
Wyatt	Eddy	Public		Kingman	AZ
Julie	Engel	Greater Yuma EDC		Yuma	AZ
Larry	Evans	Evans Family Trust			
Gerald	Faulkner	Public		Yuma	AZ
Kay	Fernandez	Public		Mohave Valley	AZ
Alejandro	Figuroa	Yuma County		Yuma	AZ
Kandi	Finfrock	Public		Lake Havasu City	AZ
Donna	Finger	Public		Golden Valley	AZ
Karen	Flenniken	Public		Bullhead City	AZ
Gary	Fredrickson	Public		Kingman	AZ
Lu	Fugate	Public		Kingman	AZ
Deborah	Gansert	Public		Kingman	AZ
Marge	Geldmacher	Public		Yuma	AZ
John	Gillette	Public		Kingman	AZ
John	Grable	Public			

First Name	Last Name	Organization	Title	City	State
Dusty	Grooms	Public			
Elston	Grubaugh	Wellton-Mohawk Irrigation & Drainage District	General Manager	Wellton	AZ
Regina	Guarisco	Public			
Richard	Harrer	Public		Kingman	AZ
Hal	Harrison	Public		Lake Havasu City	AZ
Dale	Hart	Public		Kingman	AZ
Deborah	Hicks	Public		Bullhead City	AZ
Ashlee	Hooke	Public		Bullhead City	AZ
Michael	Hromadka	Public		Lake Havasu City	AZ
Roy	Hughes	Public		Bullhead City	AZ
Laura	Innman	Public		Yuma	AZ
Holly	Irwin	La Paz County Board of Supervisors	SupervisorDistrict #3	Parker	AZ
Wes	Jackson	Public			
Kathryn	Jennings	Public		Parker	AZ
Brenda	Jorgensen	Public		Kingman	AZ
Peter	Jorgensen	Public			
Gary	Knight	City of Yuma		Yuma	AZ
Judy	Knowlron	Public		Martinez Lake	AZ
Tom	L	Public			
Barbara	Laughlin	Public			
Greg	Lavann	Public			
Daniel	Lee	Mohave County		Bullhead	AZ
Dawn	Leivas	Public		Lake Havasu	AZ
Molly	Liles	Public		Palo Verde	CA
Barbara	Lindberg Mackenzie	Self & people of Mohave County		Kingman	AZ
Paul	Lukasiak	Public		Bullhead City	AZ
Ruth	Mason	Public		Bullhead City	AZ
Jeanne	McCabe	Public		Yuma	AZ
Vallie	McKellar	Public		Lake Havasu City	AZ
Tanya	McMillin	Public			
Arturo	Morales	Public		Yuma	AZ
Cynthia	Myatt	Public		Lake Havasu City	AZ
Leslie	Nicholson	Public		Yuma	AZ
Anne	Ortega	Public		Yuma	AZ
Daniel	Ortega	Public		Yuma	AZ
Paula	Ortega	Public		Yuma	AZ
Kerry	Park	Public		Bullhead City	AZ
Richard	Park	Public		Bullhead City	AZ
Randall	Perin	Public		Lake Havasu City	AZ
Carla	Peterson	Public			
Russel	Phelps	Public			
Steven	Philo	Public		Lake Havasu City	AZ
Tim	Powers	Public		Yuma	AZ
Kenneth	Price	Public		Fort Mohave	AZ
Beverly	Ribaudo	Public		Yuma	AZ
Paul	Rightler	Public			

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Paul	Rightler	Public		Yuma	AZ
Paul	Rightler	Public		Yuma	AZ
Craig	Sallee	Public		lake havasu city	AZ
Justin	Salzman	Public		Yuma	AZ
Linda	Sanchez	Public		Palo Verde	CA
Jediah	Schmidgall	Public		Yuma	AZ
Danielle	Schufelt	Public			
BeverlyBeverly	Schwab	Public		Kingman	AZ
Jeff	Seeley	UnInvisible LLC		The Villages	FL
Gregory	Shain	Public		Kingman	AZ
Amber	Shek	Public		Yuma	AZ
William	Shelton	Public		Kingman	AZ
Larry	Shufelt	Public		Cibola	AZ
Dan	Slama	Public		Kingman	AZ
Stephanie	Smallhouse	Arizona Farm Bureau Federation	President	Gilbert	AZ
Leanne	Smith	Kingman Golden Valley Realtors' Association - KGVAR	President	Golden Valley	AZ
Mark	Smith	Yuma Irrigation District	President	Yuma	AZ
Pamela	Smith	Public		Bullhead City	AZ
Donald	Snelgrove	Public		Bullhead City	AZ
Jon	Snelgrove	Public		Bullhead City	AZ
Dani-Lee	Sosnoskie	Public		Kingman	AZ
Gregory	Sosnoskie	Public		Kingman	AZ
Jeffrey	Stocker	Public		Lake Havasu City	AZ
Susan	Stocker	Public		Lake Havasu City	AZ
Keith	Suleski	Public		Kingman	AZ
Carla	Taylor	Public		Kingman	AZ
Susan	Thorpe	Yuma County		Yuma	AZ
Michael	Timbrel	Public		Lake Havasu City	AZ
Donald	Timmerman	Public		Lake Havasu City	AZ
Jeanette	Umphress	Public		Yuma	AZ
Michele	Van Quathem	Law Offices of Michele Van Quathem, PLLC		Phoenix	AZ
Amanda	Van Wagenen	Public		Kingman	AZ
Ross	Wait	Public		Yuma	AZ
Shawn	Walsh	Public		Kingman	AZ
Melissa	Ware	Mohave County Board of Supervisors	ExecutiveSecretary	Kingman	AZ
Sharon	Weber	Public			
Melissa	Westfall	Public		Phoenix	AZ
Shelli	Whaley	Public		Kingman	AZ
Ray	White	Public		Kingman	AZ
Barbara	Wilber	Public		Lake Havasu City	AZ
Jennifer	Wilcox	Public			AZ
Deborah	Wolfe-Lopez	Public		Golden Valley	AZ