

Final Program Environmental Impact Report

**Implementation of the
Colorado River Quantification
Settlement Agreement**

Volume 1 - EIR Text and Appendices

June 2002

State Clearinghouse Number 2000061034

Coachella Valley Water District
Imperial Irrigation District
The Metropolitan Water District of Southern California
San Diego County Water Authority

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PREFACE

FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE IMPLEMENTATION OF THE COLORADO RIVER QUANTIFICATION SETTLEMENT AGREEMENT

This Program Environmental Impact Report (PEIR) evaluates the potential environmental impacts from the implementation of the Proposed Project, the Quantification Settlement Agreement (QSA). The QSA would implement major components of California's draft Colorado River Water Use Plan (California Plan) and provide part of the mechanism for California to reduce its diversions of Colorado River water to the state's normal year apportionment of 4.4 million acre-feet (MAF). The QSA components would provide a framework for conservation measures and water transfers for a period of up to 75 years (referred to as the quantification period). The Coachella Valley Water District (CVWD), Imperial Irrigation District (IID), and the Metropolitan Water District of Southern California (MWD) are signatory to the QSA.

CVWD, IID, MWD, and the San Diego County Water Authority (SDCWA) have entered into an agreement to be co-lead agencies for the preparation of an EIR in accordance with Section 15051 of the California Environmental Quality Act (CEQA) Guidelines. Although not a signatory to the QSA, SDCWA would benefit from the agreement since the QSA would facilitate the transfer of up to 200,000 acre-feet per year (KAFY) of Colorado River water from IID to SDCWA under the IID/SDCWA Water Conservation and Transfer Agreement dated April 29, 1998. The decision to prepare an EIR to assess the potential environmental impacts of implementation of the QSA was made following the completion of an Initial Study/Environmental Checklist. A Notice of Preparation (NOP) was published on June 6, 2000, and distributed to the California State Clearinghouse and other potentially interested parties.

The QSA is composed of related agreements, activities and projects, which, when taken together, support the consensual agreement among the four co-lead agencies regarding the use of Colorado River water. These proposed agreements describe how the co-lead agencies would budget their portion of California's apportionment of Colorado River water among themselves and to make water conserved in the IID service area and by lining the Coachella and All American canals available to CVWD, MWD, SDCWA, and others.

The QSA PEIR evaluates the aggregate impacts of a series of water transfers, water exchanges, water conservation measures, and other changes identified in the QSA. It is being prepared to ensure that the combined effects of the QSA components are evaluated and that where appropriate, program-wide mitigation measures are developed. This PEIR also provides project-level CEQA compliance for several components of the Proposed Project. Several other components of the Proposed Project have already been analyzed in approved CEQA documents. Although CEQA compliance has already been completed for these project components, this PEIR considers the aggregate impacts of the whole of the action as required by CEQA. Project-specific environmental documents addressing other specific QSA components are currently being prepared or will be prepared at the appropriate time once site-specific locations have been identified.

Potential mitigation measures have been identified for impacts that would result from the implementation of Project components that are receiving program-level analysis. Individual agencies that are responsible for implementing specific components of the QSA will be responsible for refining and adopting specific mitigation measures for these components in the project-level analyses being performed.

The Draft PEIR was released for public review on January 30, 2002. The 45-day review period was scheduled to end on March 15, but in response to requests for additional time, the review period was extended until March 26, 2002. The total review period was 56 days. Either the PEIR or a Notice of Availability of the PEIR was distributed to approximately 70 agencies, public libraries, Indian tribes, organizations, and individuals. Twenty-one comment letters were received from federal, state, regional and local agencies, Indian tribes, non-governmental organizations, and individuals.

Volume 1 of the Final PEIR contains the typical sections of an EIR, including an introduction; description of the Proposed Project; existing environmental conditions, impacts and mitigation measures; cumulative impacts; alternatives; and other sections required by CEQA. Volume 1 also includes the technical appendices that support the impact assessments. Volume 1 of the Final PEIR incorporates changes to the Draft PEIR made in response to comments and minor clarifications made by the co-lead agencies. Volume 2 of the Final PEIR contains comments received on the Draft PEIR and responses to those comments.

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VOLUME II

COMMENTS AND RESPONSES ON THE DRAFT PEIR

EXECUTIVE SUMMARY

ES-1 INTRODUCTION AND PROJECT OBJECTIVES

This Program Environmental Impact Report (PEIR) provides an analysis of the environmental impacts of the Proposed Project, the implementation of the Quantification Settlement Agreement (QSA) among major Southern California water agencies. The co-lead agencies of the PEIR are the Coachella Valley Water District (CVWD), Imperial Irrigation District (IID), the Metropolitan Water District of Southern California (MWD), and the San Diego County Water Authority (SDCWA).

The Proposed Project's goals and objectives are as follows:

- to settle, by consensual agreement, longstanding disputes regarding the priority, use, and transferability of Colorado River water;
- to agree upon a plan for the future distribution of Colorado River water among CVWD, IID, MWD, and SDCWA for up to 75 years, based on agreed-upon Colorado River water budgets for CVWD, IID, MWD, and SDCWA;
- to facilitate agreements and actions that, when implemented, would ensure the certainty and/or reliability of Colorado River water supplies available to CVWD, IID, MWD, and SDCWA;
- to assist these agencies in meeting their water demands without exceeding California's apportionment of Colorado River water;
- to identify agreed-upon terms and conditions for the conservation and transfer of specific amounts of Colorado River water within California; and
- to provide incentives to promote conservation of Colorado River water.

ES-2 PROJECT LOCATION

The project location includes much of Southern California. The region of influence (ROI) comprises the historic floodplain of the Colorado River below Lake Mead and the areas that receive Colorado River water: the IID, CVWD, and MWD service areas, including the SDCWA service area. The service areas include all or part of Ventura, Los Angeles, Orange, San Diego, San Bernardino, Riverside, and Imperial counties. The ROI also includes the lower Colorado River mainstem and the areas of conveyance and distribution of Colorado River water by these agencies.

ES-3 PROJECT DESCRIPTION

The Proposed Project involves a series of water transfers, water exchanges, water conservation measures and other changes identified in the QSA. The QSA is a proposed agreement among CVWD, IID, and MWD to budget their portion of California's apportionment of Colorado River

water among themselves and to make water conserved in the IID service area and by lining the Coachella and All America canals available to CVWD, MWD, SDCWA, and others. Implementation of the QSA would not affect the diversion, distribution, and/or use of Colorado River water except within California. Within California, the QSA would only affect the diversion, distribution, and/or use of Colorado River water by the participating agencies (CVWD, IID, MWD, and SDCWA). The QSA would not affect the diversion, distribution, and/or use of Colorado River water by other agencies within California that hold rights to Colorado River water.

The QSA quantifies, by agreement, the amount of Colorado River water available to the participating agencies and calls for specific, changed distribution of that water among the agencies for the quantification period. The quantification period extends for up to 75 years, although the QSA anticipates a transition period of approximately 25 years for the full implementation of water conservation/transfers and exchange projects. Many of the water conservation and transfer components of the QSA would be implemented incrementally over a period of several years. The water agencies that are affected by the implementation of the QSA are the participating agencies (CVWD, IID, MWD, and SDCWA). Although not a signatory to the QSA, SDCWA would benefit from the QSA since the QSA would facilitate implementation of the 1998 IID/SDCWA Water Conservation and Transfer Agreement.

The QSA is composed of related agreements, activities and projects, which, when taken together, support the consensual agreement among the four co-lead agencies regarding the use of Colorado River water. The PEIR addresses the aggregate impacts of the implementation of each of the program components listed below.

- A. IID's Priority 3a Colorado River Water Capped at 3.1 million acre-feet per year (MAFY)
- B. QSA Changes to IID/MWD 1988 Agreement, IID/MWD/PVID/CVWD 1989 Approval Agreement, and MWD/CVWD 1989 Agreement to Supplemental Approval Agreement
- C. IID/SDCWA Transfer of Conserved Water
- D. MWD/SDCWA Exchange of Conserved Water (Up to 200 thousand acre-feet per year [KAFY])
- E. IID/CVWD/MWD Transfer of Conserved Water (First 50 KAFY transferred from IID to CVWD and/or MWD, Second 50 KAFY transferred from IID to CVWD and/or MWD through year 44 and from MWD to CVWD beginning in year 45 of the QSA)
- F. Transfer of Conserved Water from the All American Canal Lining Project (67.7 KAFY)
- G. Priority 6a Colorado River Priorities and Volume Allocations
- H. CVWD's Priority 3a Colorado River Water Capped at 330 KAFY
- I. Transfer of Conserved Water from the Coachella Canal Lining Project (26 KAFY)
- J. Transfer of Water (35 KAFY) - MWD/CVWD State Water Project (SWP) Entitlement Transfer and Exchange Agreement
- K. MWD Priority 4 and 5 Colorado River Water Cap
- L. Over and Under Run of Priorities 1, 2 and 3b

- M. Use by Miscellaneous Present Perfected Rights and Federal Reserved Rights, including Certain Indian Reservations
- N. QSA Shortage Sharing Provisions

Separate environmental analysis of many of the Agreement components has either been completed or is under preparation. The PEIR also addresses the project-specific impacts of those components not addressed in a separate environmental document.

Related Plans, Programs, and Actions

Several planned water resources management plans, programs, and actions may affect the allocation, distribution, and/or use of Colorado River water and associated environmental resources in California and adjacent states. A description of these plans, programs, and actions is provided below for background information. Additional information on related plans, programs and actions is provided in section 1.5.

Implementation Agreement

The Implementation Agreement (IA), an agreement between CVWD, IID, MWD, SDCWA, and the Secretary of the Interior, specifies the federal actions that are necessary to implement the QSA. Execution of the IA would commit the Secretary to making Colorado River water deliveries in accordance with the terms and conditions of the IA to enable the implementation of the QSA. A draft Environmental Impact Statement (EIS) that evaluates the environmental impacts of the execution of the IA and related accounting and environmental actions was issued by Reclamation in January 2002.

Inadvertent Overrun and Payback Policy

Reclamation is proposing to adopt the Inadvertent Overrun and Payback Policy (IOP), which would identify inadvertent overruns of Colorado River water and define subsequent payback requirements to the Colorado River. The IOP must be in place prior to implementation of the IA and QSA. A draft EIS that evaluates the environmental impacts of the IOP and related actions was issued by Reclamation in January 2002.

Biological Conservation Measures

In August 2000, Reclamation released its *Biological Assessment for Proposed Interim Surplus Criteria, Secretarial Implementation Agreements for California Water Plan Components, and Conservation Measures on the Lower Colorado River (Lake Mead to the Southerly International Boundary)* (Biological Assessment). The Biological Assessment identified potential impacts that could occur to federally listed fish and wildlife species and their associated critical habitats within the historic floodplain of the Colorado River between Parker Dam and Imperial Dam from implementing a change in point of delivery and diversion of Colorado River water from Imperial Dam to Lake Havasu of 400 KAFY. The biological conservation measures to offset potential impacts from the change in point of delivery and diversion were developed and agreed to by Reclamation and the U.S. Fish and Wildlife Service (Service) and were incorporated into the Service's January 2001 *Biological Opinion for Interim Surplus Criteria, Secretarial Implementation Agreements, and Conservation Measures on the Lower Colorado River, Lake*

Mead to the Southerly International Boundary, Arizona, California, and Nevada (Biological Opinion). A draft EIS that evaluates the environmental impacts of the biological conservation measures and related actions, including the IA and IOP, was issued by Reclamation in January 2002.

Coachella Valley Water Management Plan

CVWD prepared the Coachella Valley Water Management Plan (CVWMP) (CVWD 2000) to establish an overall program for managing its surface and groundwater resources in the future. The CVWMP involves a number of actions to reduce the current overdraft of the groundwater basin in the Coachella Valley. The CVWMP consists of both QSA and non-QSA components. Water that becomes available through implementation of the QSA will be used to reduce groundwater overdraft in the Coachella Valley. CVWD is currently preparing a Program EIR to address the potential environmental impacts of the CVWMP implementation.

IID Water Conservation and Transfer Project

IID Water Conservation and Transfer Project provides for water conservation in the IID service area and transfer of conserved water to SDCWA, MWD, and CVWD. In the event that the QSA is executed, IID would conserve up to 300 KAFY by a combination of system and on-farm conservation methods and would transfer up to 200 KAFY to SDCWA. CVWD and/or MWD would have the option to acquire up to 100 KAFY. A draft EIR/EIS was published in January 2002 that evaluates the IID Water Conservation and Transfer Project.

ES-4 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Table ES-1, located at the end of this Executive Summary, identifies the significant, less-than-significant, and beneficial impacts that would occur if the Proposed Project were implemented. It also lists the mitigation measures that have been identified to reduce significant impacts, as well as the residual impacts that would occur following their implementation. The following summarizes the significant impacts of the Proposed Project by resource. Details regarding Project impacts are provided in Chapter 3.

ES-4.1 Water Resources

The decrease in the amount of drainage water discharged into the Alamo River and IID drains could result in selenium concentrations exceeding the EPA Aquatic Life Criteria for Continuous Concentration. This would be a significant and unavoidable impact to water quality.

The increase of Colorado River water supplies for use in the CVWD service area would result in an increase in selenium in drain flows, which is considered a potentially significant and unavoidable impact. Groundwater recharge with Colorado River water in the Coachella Valley would result in an increase in total dissolved solids (TDS) of lower aquifer groundwater. This is considered a significant and unavoidable impact.

ES-4.2 Biological Resources

IID Service Area

Losses of wet areas and phreatophytic vegetation from the All American Canal Lining Project would be significant but would be mitigated to less-than-significant levels by habitat replacement and enhancement as part of that project. Potential alteration of emergent and in-channel vegetation along drains from on-farm conservation programs is considered significant but mitigable.

The All American Canal Lining Project would reduce habitat for non-native fish and would decrease seepage-fed areas adjacent to the canal, which are important habitat areas for certain wildlife species. There is also a potential for large mammals to enter and drown in the canal. Changes in amount or composition of vegetation from conservation measures could adversely impact bird and amphibian species using that habitat, and would be considered a significant but mitigable impact.

Construction-related activities in the IID service area related to on-farm conservation measures and water delivery system improvements may impact sensitive plant species, but the selection of sites for such activities would consider environmental concerns and sensitive plant species. Conservation measures have the potential to impact desert pupfish and impacts could range from less-than-significant to significant but mitigable.

CVWD Service Area

Losses of wetland and riparian plant communities from the Coachella Canal Lining Project are potentially significant. Construction activities have the potential to cause both temporary and permanent losses of native vegetation, and impacts would be less than significant, particularly in previously disturbed areas, but could be potentially significant but mitigable if native vegetation is permanently lost. The project also has the potential to adversely affect habitat for the Yuma clapper rail, California black rail, desert pupfish, and desert tortoise.

Constructing groundwater recharge facilities in the CVWD service area may impact wildlife habitat, but it is anticipated that these adverse impacts would be less than significant. The Dike 4 recharge facility may be constructed within critical habitat for the peninsular bighorn sheep. Should significant impacts be identified once specific sites are selected, they would be mitigable to less than significant.

Other construction-related activities (e.g., construction of pipelines and pumping stations) may impact sensitive plant species in the CVWD service area, but selection of sites for such activities would consider environmental concerns and sensitive plants species. Significant impacts would be mitigable to less than significant.

The increase in quantity of water and velocity of the flow within the drains in the CVWD service area due to an increase in groundwater levels has a potential to significantly impact desert pupfish populations residing within the drains. The potential impact will be monitored and mitigation will be formulated in cooperation with the resource agencies should the

monitoring effort indicate an adverse effect to the species. This potentially significant impact would be reduced to less-than-significant levels.

Lower Colorado River

The potential drop in median groundwater levels along the lower Colorado River could impact riparian vegetation with shallow roots (i.e., cottonwood and willow trees) along the outward fringes of the riparian zone. This impact to aquatic, marsh, and riparian vegetation is considered a potentially significant but mitigable impact.

Implementation of the Proposed Project has the potential to reduce wetland and riparian habitat along the lower Colorado River that is used by amphibians, reptiles, riparian and marsh obligate birds, and mammals. This potential loss of habitat would potentially be a significant but mitigable impact.

The potential loss of backwater area and main channel habitat would be a potentially significant impact. The potential reduction in emergent vegetation may result in the reduction of habitat for the Yuma clapper rail and the California black rail, and this potential loss of habitat would be considered a potentially significant impact. There is a potential, but less well-defined impact to riparian vegetation along the lower Colorado River, which could affect the southwestern willow flycatcher, western yellow-billed cuckoo, Arizona Bell's vireo, elf owl, Gila woodpecker, and gilded flicker. Impact to this habitat would be considered potentially significant. All of the above impacts would be mitigable to less than significant.

Salton Sea

Reduced inflows to the Salton Sea could produce additional increases in salinity in the Salton Sea and thus accelerate the loss of food sources for fish-eating birds at the Salton Sea due to increasing salinity. This is considered a potentially significant but mitigable impact. The accelerated change in the natural habitat of the desert pupfish is considered a potentially significant but mitigable impact. Significant but mitigable impacts would occur to the California brown pelican, black skimmer, double-crested cormorant, and other resident and migratory birds that forage on fish at the Salton Sea.

ES-4.3 Geology, Soils, and Minerals

Construction activities in the IID and CVWD service areas could cause a temporary increase in wind and water erosion of bare soils. This is a potentially significant but mitigable impact.

If groundwater levels in the CVWD service area increase to within 30 feet of the ground surface under habitable structures or important infrastructure, the liquefaction hazard could increase, which would be a potentially significant but mitigable impact.

ES-4.4 Land Use

No significant land use impacts would occur.

ES-4.5 Agricultural Resources

If fallowing of land as a conservation measure and/or the use of agricultural areas for habitat mitigation or restoration within the IID or CVWD service area and along the lower Colorado River result in the conversion of agricultural lands to non-agricultural use, it will result in a significant and potentially unavoidable impact to agricultural resources in Southern California.

Construction of recharge facilities in the CVWD service area could have a significant but mitigable effect on agricultural resources if they were located in agricultural areas because they could convert farmland to a non-agricultural use. As specific sites for the recharge facilities are located, additional environmental review will be conducted that will identify impacts to agricultural resources.

ES-4.6 Recreational Resources

Use of the area around the All American Canal by off-highway vehicles (OHVs) could present a hazard during construction, which would be a potentially significant but mitigable impact. Construction of a parallel canal would adversely affect recreational fishing by reducing the habitat for sportfish. Lining also could reduce downstream numbers of sportfish by reducing in-canal reproduction. These impacts would be significant but mitigable.

Construction activities during the lining of the Coachella Canal would temporarily disrupt some recreational uses of the area. Construction could block access to a recreational trail on Bureau of Land Management (BLM) lands, the Bradshaw Trail, which would be a significant but mitigable impact.

Decreasing water surface elevation of the Salton Sea would affect existing recreational facilities, some of which would have to be relocated (i.e., campgrounds, docks) or re-established (i.e., roads and trails leading to the water). Decreasing water levels would expose footings and other remnants of campgrounds that are currently underwater. The impact to developed recreational facilities from decreased water levels, therefore, is considered significant but mitigable.

The Proposed Project and related projects would accelerate the increase in salinity at the Salton Sea and reduce Sea elevation, which would accelerate the decline of the sport fishery that is anticipated under existing and future projected trends at the Salton Sea. This would hasten the decrease in the number of fish that live in the Salton Sea, adversely affecting sport fishing opportunities. This would be a significant but mitigable impact.

ES-4.7 Air Quality

Construction activities associated with on-farm and system water conservation measures in the IID service area would impact air quality from combustive emissions due to the use of fossil fuel-fired construction equipment and fugitive dust (PM₁₀) emissions due to ground-disturbing activities. The impact of combustive emissions would be less than significant, but fugitive dust emissions could be significant but mitigable from activities that disturb large amounts of soil. If fallowing is used to reduce water usage in the IID service area, there is a potential for significant but mitigable fugitive dust emissions from the fallowed land.

The Coachella Canal Lining Project EIS/EIR (USBR and CVWD 2001) determined that PM₁₀ emissions (due to fugitive dust) from construction activities would constitute a significant impact even after mitigation. However, this impact would only last for the duration of construction activities.

Development of other new facilities in the CVWD service area would generate air pollutant emissions (NO_x and PM₁₀) from construction-related activities. These activities would cause temporary impacts to local air quality and would be significant if they exceeded air pollutant thresholds established by the South Coast Air Quality Management District (SCAQMD) within the South Coast Air Basin (SCAB) Project region. Due to their short-term nature, construction-related activities would not interfere with attainment of the national and state ambient air quality standards over the long term.

Although the new shoreline created by reduced inflows to the Salton Sea would only marginally increase the total land area within the ROI that presently generates fugitive dust emissions, fugitive dust emissions from these areas are conservatively estimated to be significant, due to the PM₁₀ nonattainment status of the region, but mitigable.

ES-4.8 Cultural Resources

Construction in the IID and CVWD service areas would involve ground disturbance that could impact a significant archaeological or paleontologic site or human remains. Such impacts would be significant but mitigable. Potentially significant but mitigable impacts could result if implementation of Project components would require demolition or relocation of a significant historic architectural resource.

Any physical alteration of the Coachella Canal would be a potentially significant but mitigable impact.

Reduction of the current and projected surface area of the Salton Sea may expose previously submerged cultural resources, which would leave those resources susceptible to site erosion and looting. This could result in a significant impact to cultural resources. Newly exposed land also could be cultivated or developed if found to be suitable for such use, which could impact cultural resources. Significant impacts would be mitigable.

ES-4.9 Noise

Construction in the IID and CVWD service areas would create short-term noise impacts from the use of various types of equipment. Construction would generally take place in rural, unpopulated areas, well away from noise sensitive receptors. However, should noise-sensitive receptors, including riparian birds, be exposed to noise in excess of applicable standards, the impact would be significant but mitigable.

Operations in the IID and CVWD service areas would require the operation of pumps that could generate long-term noise in excess of 70 dBA at 50 feet. Depending on the location of these pumps in relation to noise-sensitive receptors, noise from the pumps could cause a significant but mitigable impact.

ES-4.10 Aesthetics

If pipelines or pump stations in the CVWD service area were located in a visually sensitive area, impacts could be significant but mitigable.

Due to implementation of the Proposed Project, views of the Salton Sea from some public areas would include increased dry land and decreased open water. The exposed area would look like the existing beach, but views of the water from the developed public viewing facilities would be from a much greater distance. The change would be very gradual, and the visual impact would not be perceptible except over a long period, but ultimately, the impact would be significant but mitigable.

ES-4.11 Hazards and Hazardous Materials

Construction activities in the IID and CVWD service areas may temporarily impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan if such activities coincide with construction in evacuation or other emergency routes. This would be a potentially significant but mitigable impact.

The proposed improvements in the IID and CVWD service areas likely would be located in agricultural or remote areas and are not likely to be located on sites that are known to contain hazardous materials or are included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. If they were, however, impacts would be significant but mitigable.

Mosquito habitat could be created if new recharge basins were constructed in the CVWD service area, which would be a potentially significant but mitigable impact.

ES-4.12 Public Services, Utilities, and Transportation

Construction of new facilities in the CVWD service area could cause temporary disruption of present traffic patterns and increases in traffic hazards, or availability of parking on local roadways. Given the existing favorable conditions and the short duration of construction, impacts would not be significant unless construction occurred in the immediate vicinity of heavily traveled roadways and intersections. Significant impacts would be mitigable to less than significant.

Pipelines, pumping stations, and recharge basins would likely be located in rural or undeveloped areas away from schools or providers of emergency services. However, if construction occurred near such facilities, it could restrict emergency access, which would be a significant but mitigable impact.

ES-4.13 Population, Housing, and Employment

No significant impacts to population, housing, or employment would occur.

ES-5 SUMMARY OF SIGNIFICANT CUMULATIVE IMPACTS

The cumulative impacts of the Proposed Project combined with other regional water supplies or closely related projects in the region are described in detail in Chapter 4 and are summarized in

Table ES-2. A list approach was used to identify the closely related projects that could result in cumulatively considerable impacts. Potential projects that may result in a cumulative impact in combination with the Proposed Project were initially identified through a review of regional and local environmental documents. Once identified, these projects were examined for their potential to result in a cumulative impact when combined with the Proposed Project. Those projects identified for the analysis of cumulative impacts were generally those that involved water resources in the region, those projects with a potential to affect the resources of the Colorado River or Salton Sea, or those projects that have a potential to impact the same resources as the components of the Proposed Project. This section summarizes the significant cumulative impacts that would occur to each resource considered in this PEIR. Impacts that were described as speculative in section 4.2 are not included in the following discussion.

ES-5.1 Water Resources

The construction of conservation/restoration actions associated with the MSCP and biological mitigation measures described in section 3.2 could result in short-term impacts to water quality along the lower Colorado River. These impacts could be cumulatively significant if these actions occurred at the same general time and location. These impacts would be mitigable through standard construction practices that would be developed once specific sites were selected. Such practices include, but are not limited to, the installation of temporary berms and sedimentation traps, such as silt fencing, straw bales, and sand bags, revegetating disturbed areas immediately after grading, and conveying surface run-off in a manner that minimizes the potential for erosion and sedimentation. Geotextile binding fabrics should be used if necessary to hold slope soils until vegetation is established. With mitigation, these potential short-term impacts would be reduced to less-than-significant.

ES-5.2 Biological Resources

The Proposed Project and the Land Management, Crop Rotation, and Water Supply Program in the Palo Verde Valley together would slightly lower the Colorado River median water surface elevation between Parker Dam and the Palo Verde Diversion Dam. This would result in a potentially significant cumulative impact to biological resources. Depending on the details of individual agreements for offstream storage, cumulative impacts to biological resources along the lower Colorado River could be significant. It is anticipated that most of the potential cumulative impacts to biological resources would be attributable to the Proposed Project. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impact to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact. It is anticipated that mitigation measures also would be developed for related projects, which would further reduce impacts.

The construction of conservation/restoration actions associated with the MSCP and biological mitigation measures described in section 3.2 could result in short-term impacts to biological resources along the lower Colorado River. These impacts could be cumulatively significant if these actions occurred at the same general time and location. These impacts would be mitigable through standard construction practices that would be developed once specific sites were selected. With mitigation, these potential short-term impacts would be reduced to less-than-significant.

The North Baja Powerline Project could result in a slight increase in the loss of riparian and marsh habitat in the IID service area and so has the potential for a significant cumulative impact in combination with the Proposed Project. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts.

Implementation of the CVWMP would result in potential localized impacts to areas in the Coachella Valley where facilities may be located. These areas of disturbance may be within the same general locations as those facilities associated with the Proposed Project components of the CVWMP. Impacts to biological resources could be cumulatively significant. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts. It is anticipated that mitigation measures also would be developed for related projects, which would further reduce impacts.

ES-5.3 Geology, Soils, and Minerals

Significant impacts to geology and soils would result from construction of Proposed Project facilities in the IID and CVWD service areas. To the extent that construction of projects such as the CVWMP, Te' Ayawa Energy Center, Cabazon Power Plant occurred at the same time and/or in the same general location as the Proposed Project, impacts could be cumulatively significant. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts. It is anticipated that mitigation measures also would be developed for related projects, which would further reduce impacts.

ES-5.4 Land Use and Planning

No significant cumulative impacts to land use and planning would result from implementation of the Proposed Project and related projects.

ES-5.5 Agricultural Resources

The Proposed Project could result in the conversion of Important Farmland to non-agricultural use, as described in section 3.5. This is considered a significant and potentially unavoidable impact. Depending on the sites that are selected for restoration/conservation actions, the MSCP also could result in such a conversion, as could the implementation of the Proposed Project's biological mitigation measures along the Colorado River, and the North Baja Powerline Project. If such conversion occurred, it would be a significant and potentially unavoidable cumulative impact to agricultural resources in Southern California.

ES-5.6 Recreational Resources

No significant cumulative impacts to recreational resources would result from implementation of the Proposed Project and related projects.

ES-5.7 Air Quality

Construction of Proposed Project facilities in the IID and CVWD service areas would create short-term significant air quality impacts. To the extent that construction of projects such as the CVWMP, Te' Ayawa Energy Center, and Cabazon Power Plant occurred at the same time and/or in the same general area as construction associated with the Proposed Project, air quality could be cumulatively significant. If these projects and the Coachella Canal lining project were constructed at the same time, short-term impacts to air quality could be cumulatively significant and unavoidable. With the exception of the potential air quality impact described above, mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts. It is anticipated that mitigation measures also would be developed for related projects, which would further reduce impacts.

ES-5.8 Cultural Resources

Impacts to cultural resources from the Proposed Project could result from construction in the IID and CVWD service areas and at the Salton Sea. Impacts to cultural resources also could result from construction of related projects in the IID and CVWD service areas. Impacts to cultural resources along the lower Colorado River could result from ground disturbance required to implement the conservation/restoration actions of the MSCP and the Proposed Project's biological mitigation measures. Impacts could be cumulatively significant. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts. It is anticipated that mitigation measures also would be developed for related projects, which would further reduce impacts.

ES-5.9 Noise

The Proposed Project could result in short-term noise impacts from construction and long-term impacts from the operation of pumps in proximity to noise-sensitive receptors. Related construction projects also could result in short-term noise impacts. A significant cumulative impact could occur if construction occurred in the same general area at the same time. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts. It is anticipated that mitigation measures also would be developed for related projects, which would further reduce impacts.

ES-5.10 Aesthetics

The Proposed Project could cause significant aesthetic impacts should facilities in the CVWD service area be constructed in visually sensitive areas. Significant visual impacts are not expected to result from the other related projects, but mitigation measures associated with the Proposed Project would reduce any potentially significant cumulative impacts to less-than-

significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts.

ES-5.11 Hazards and Hazardous Materials

The Proposed Project would result in a significant impact to hazards and hazardous materials if construction temporarily interfered with an adopted emergency response plan or occurred in proximity to evacuation or other emergency routes. It also could result in a significant impact if construction occurred on sites containing hazardous materials. Significant cumulative impacts could occur to the extent that other related projects caused similar impacts. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts.

ES-5.12 Public Services, Utilities, and Transportation

Construction associated with the Proposed Project in the IID and CVWD service areas could cause temporary impacts to transportation and emergency access to facilities such as schools. Significant cumulative impacts could occur if construction of related projects occurred in the same general location and at the same time as the Proposed Project. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to less-than-significant levels. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impacts.

ES-5.13 Population, Housing, and Employment

No significant cumulative impacts to population, housing, or employment would result from implementation of the Proposed Project and related projects.

ES-6 ALTERNATIVES CONSIDERED

Impacts of the Alternatives to the Proposed Project are discussed in Chapter 5 and summarized below.

Alternative 1: No Project

Under Alternative 1, the Department of Interior would enforce the Law of the River under its existing terms and require California to divert no more than 4.4 million acre feet (MAF) during normal years. Based on the existing priority system, the diversions to MWD would be reduced from the baseline condition of approximately 1.25 MAFY to approximately 660 KAFY. Net diversions for Priority 1, 2, and 3 users (including CVWD and IID) would be limited to 3.85 MAFY, less the amount of water made available under the 1989 IID/MWD Agreement described in section 1.5. There would also be no increased use of Colorado River water in the CVWD service area, resulting in continued dependence on groundwater resources.

MWD and SDWCA would be expected to make up the shortfall of approximately 650 KAFY in Colorado River water supplies through other water management methods and/or supplies not

involving additional diversions from the Colorado River. These could include increased recycling and conservation, and other methods including desalination of ocean water, and use of other supply options.

Anticipated Impacts of Alternative 1

The beneficial impacts of the Proposed Project from reduced groundwater overdraft in the Coachella Valley would not occur. Water conserved and transferred as part of the All American and Coachella Canal lining projects, included as part of the Proposed Project, also would not occur. Significant unavoidable impacts in the CVWD and/or IID service areas would not occur. Significant but mitigable impacts to biological resources, geological resources, water quality, recreational resources, air quality, cultural resources, noise, agricultural resources, aesthetics, hazards, and transportation in the IID and/or CVWD service areas also would not occur.

Reduction in average water flows in the Colorado River from Parker to Imperial dams due to the implementation of the Proposed Project would not occur, nor would the resulting potentially significant impacts to biological resources of the lower Colorado River.

The no project alternative would avoid the acceleration of impacts to air quality, biological resources, cultural resources, recreational resources, and aesthetics of the Salton Sea that would occur under the Proposed Project. Future impacts to these Salton Sea resources would occur regardless of whether the Proposed Project is implemented, although at a slower rate.

Environmental impacts resulting from other water management actions (i.e., conservation, recycling and desalting) that may be implemented as part of Alternative 1 would primarily occur in the CVWD, MWD, and SDWCA service areas.

Conclusion

This alternative would not meet any of the goals of the Proposed Project, or be consistent with the objectives of the California Colorado River Water Use Plan. It would not:

- settle by consensual agreement disputes regarding Colorado River water use;
- establish a plan for future distribution of Colorado River water among the co-lead agencies;
- maintain certainty and reliability of Colorado River water supplies among the co-lead agencies;
- result in agreement on terms and conditions for Colorado River water conservation and transfers; and
- provide incentives for conserving Colorado River water.

None of the significant or less-than-significant environmental impacts of the Proposed Project would occur. Degradation of the Salton Sea would continue. Beneficial impacts associated with lining the All American and Coachella canals would not occur, nor would beneficial impacts from reduced groundwater overdraft in the Coachella Valley. Under the no project alternative, Proposed Project-related impacts to the Salton Sea would be avoided.

Alternative 2: Implement the Proposed Project while Minimizing Changes in Points of Diversion

Alternative 2 would result in the implementation of the Proposed Project while minimizing changes to the current diversion points and amounts on the Colorado River. Under Alternative 2, Colorado River flows (and the resultant median water surface elevation) between Parker and Imperial dams would remain largely unchanged. Therefore, Alternative 2 would reduce the anticipated project-related adverse impacts on Colorado River fish, wildlife, and wetland resources.

Alternative 2A: Connect the Coachella Canal to the Colorado River Aqueduct

Description of Alternative 2A

Alternative 2A would connect the Coachella Canal to the Colorado River Aqueduct (CRA) by adding a new pipeline and associated facilities between these two canals west of the City of Coachella. This option would retain the current diversion points and amounts on the Colorado River but would allow water to be transferred to MWD and SDCWA to be diverted at Imperial Dam rather than at Parker Dam. The water ultimately would be delivered into the CRA for use in the MWD or SDCWA service areas and to implement the San Luis Rey Indian Water Rights Settlement Act.

Anticipated Impacts of Alternative 2A

Impacts to the IID, CVWD, MWD, and SDCWA service areas from water conservation and/or use would remain the same as described for the Proposed Project, as would impacts to the Salton Sea. Alternative 2A would avoid impacts associated with the change in diversion of water from the Colorado River. No loss of habitat on the Colorado River would occur. Implementation of this alternative would result in both short-term and long-term impacts within the Coachella Valley associated with the construction and operation of the new pipeline connecting the Coachella Canal to the CRA.

Conclusion

Implementation of Alternative 2A, while reducing potential impacts to biological resources along the Colorado River, would not reduce any other impacts associated with implementation of the Proposed Project. There is a potential that the construction of the pipeline connecting the Coachella Canal to the CRA would result in a number of substantial and possibly unavoidable significant impacts to water resources, biological resources, geology, soils and minerals, agricultural resources, air quality, cultural resources, noise, aesthetics, and hazards and hazardous materials. This alternative would not have any major advantage over the Proposed Project because mitigation measures for biological impacts in the Colorado River area would reduce any impacts to less-than-significant levels. This alternative would meet all of the objectives of the Proposed Project.

Alternative 2B: Connect the All American Canal to the SDCWA System

Description of Alternative 2B

Alternative 2B would connect the All American Canal to the SDCWA system via a new pipeline between the western end of the All American Canal in Imperial County to the San Vicente Reservoir within San Diego County. This option would allow implementation of the IID/SDCWA Water Conservation and Transfer Agreement, as amended by the QSA. Up to 200 KAFY would be diverted at Imperial Dam for use by SDCWA, rather than at Parker Dam as would occur under the Proposed Project.

Anticipated Impacts of Alternative 2B

Implementation of this alternative would reduce the impacts of the Proposed Project to biological resources along the Colorado River by reducing the amount of marsh and riparian vegetation affected. Implementation of this alternative has all of the other impacts that the Proposed Project would have. Additional potential impacts associated with the proposed pipeline construction could occur during the construction period.

Conclusion

Implementation of Alternative 2B, while partially reducing potential impacts to biological resources along the Colorado River, would not reduce any other impacts to the Salton Sea associated with the implementation of the Proposed Project. There is also a potential that the construction of the pipeline and reservoirs would result in a number of substantial and possibly unavoidable significant impacts as identified. Although potentially feasible, the alternative would not have any major environmental advantage over the Proposed Project. This alternative would lessen impacts along the Colorado River, but a portion of the mitigation measures that have been identified to reduce potential impacts to biological resources to less-than-significant levels would still need to be implemented. This alternative would meet all of the objectives of the Proposed Project.

Alternative 3: Reduced Project Implementation to 230 KAFY of Water Conservation and Transfer

Description of Alternative 3

Alternative 3 includes partial implementation of the Proposed Project by reducing the level of conservation and transfer to the minimum allowable under the IID/SDCWA Water Conservation and Transfer Agreement. The purpose of this alternative is to substantially lessen the biological, recreational, air quality, and water impacts of the Proposed Project on the Salton Sea, IID service area, and the Colorado River. Under this alternative, 130 KAFY rather than 200 KAFY would be conserved via on-farm conservation methods and transferred to SDCWA. The First and Second 50 KAFY components of the Proposed Project could be satisfied by a mixture of conservation measures, including on-farm irrigation system improvements, delivery system improvements, and/or fallowing. The remainder of the Proposed Project would be implemented as proposed.

Anticipated Impacts of Alternative 3

Under this alternative, the maximum anticipated reduction in flows of the Colorado River between Parker and Imperial dams would be 318 KAFY. There would also be reduced conservation of water in the IID service area, and therefore, reduced impacts to Salton Sea resources, although impacts to the Salton Sea, as described above, would remain significant. Beneficial impacts to groundwater resources in the Coachella Valley would be the same as the Proposed Project.

Conclusion

Alternative 3, although decreasing the amount of water transferred, provides only a slight reduction of potential impacts to the Colorado River and, at best, slightly less impacts to the IID service area and the Salton Sea than the Proposed Project. This alternative would meet the objectives of the Proposed Project. This alternative, however, would not avoid or substantially reduce the impacts of the Proposed Project.

Alternative 4: Proposed Project Implementation With Additional Conservation*Description of Alternative 4*

Alternative 4 was designed to avoid impacts to fish-eating birds at the Salton Sea resulting from a reduction in inflow volume, as contemplated under the Proposed Project. Under this alternative, water conserved by additional actions within the IID service area would offset reduced inflows to the Salton Sea resulting from water conservation and transfer actions by IID. Replacement water would be made available for the period necessary to avoid impacts of the Proposed Project on fish-eating birds as a result of the loss of the food source for these birds or to avoid the recreational impact of the loss of the Salton Sea sport fishery.

Anticipated Impacts of Alternative 4

Except for the elimination of the temporary impacts to fish-eating birds and the sport fishery, the type of impacts to the Salton Sea ultimately would be generally the same as those of the Proposed Project although they could differ in intensity. Temporary impacts to fish-eating birds would be avoided since the water from the additional conservation would allow water to be temporarily made available to avoid increasing salinity due to reduced Sea elevation. Implementation of this alternative would delay impacts to air quality, cultural resources, and recreational resources from the Proposed Project as a result of reduced water surface elevation of the Salton Sea.

Conclusion

Alternative 4 would avoid significant impacts on the Salton Sea fishery and impacts to fish-eating birds caused by the loss of the fishery. Other impacts would be delayed for the period that replacement water is utilized. This alternative would meet most of the Proposed Project's goals.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The California Environmental Quality Act (CEQA) requires that an EIR identify the environmentally superior alternative. In the case of this PEIR, the No-Project Alternative (Alternative 1) is considered environmentally superior since it would not result in any of the identified significant impacts associated with the implementation of the Proposed Project.

CEQA requires that an additional alternative be defined as environmentally superior if the no project alternative is considered environmentally superior. Depending upon how conservation is implemented and which mitigation measures are employed, the Proposed Project may be environmentally superior to the other alternatives. If conservation actions and mitigation measures that would reduce impacts to the fish populations and fish-eating birds at the Salton Sea are not employed as part of the Proposed Project, then Alternative 4 would be considered environmentally superior. Alternative 4 would avoid significant impacts to biological resources associated with the implementation of the Proposed Project to the Salton Sea. Impacts to resources in other areas from other project alternatives would not be substantially different than those of the Proposed Project, with the potential exception of impacts to the biological resources of the lower Colorado River, which would be avoided or reduced by Alternatives 2A and 2B, respectively.

ES-7 GROWTH-INDUCING IMPACTS

The QSA does not directly or indirectly provide new water supplies to Southern California. Instead, the QSA changes the distribution of existing Colorado River water supplies among the co-lead agencies, thereby assisting California in reducing its use of Colorado River from an average of 5.0 MAFY to 4.4 MAFY in normal years. QSA implementation will merely ensure that delivery of Colorado River water to the MWD/SDCWA service areas will be identical, at best, to the historical averages for the last 15 years or more.

The diversion patterns of Colorado River water envisioned by the QSA have occurred for decades. For example, MWD has diverted up to an amount to fill the CRA, or approximately 1.3 MAFY. There have also been years where CVWD has diverted up to approximately 450 KAF, and years where IID had reduced its diversions to (or less than) 3.1 MAF.

Cities and counties are the primary agencies responsible for regulating land use through their general plans, specific plans, and zoning regulations. The water supplies being provided and planned for by all four co-lead agencies are consistent with the level of growth projected by regional planning agencies and local general plans, and impacts of projected growth have been disclosed and mitigated in general plan CEQA documents.

CVWD, IID, MWD, and SDCWA do not have the authority to regulate land use. Future growth will occur in accordance with local planning decisions. With the passage of Senate Bill (SB) 610 (Costa) and SB 221 (Kuehl) in 2001, water suppliers such as the co-lead agencies will be required to provide detailed information to cities and counties about current and future water demand and availability in advance of city and county planning decisions on large development proposals.

ES-8 AREAS OF KNOWN CONTROVERSY

Two areas of potential controversy remain with the implementation of the components of the Proposed Project.

- Concern has been expressed regarding the potential conversion of farmland to non-agricultural use, on either a short-term or long-term basis, as a result of fallowing as a conservation measure or the use of farmland for mitigation or environmental purposes, and the resulting impacts to agricultural resources and the social and economic consequences.
- Concern has been expressed by environmental groups, Salton Sea area residents, the Salton Sea Authority, and other interested parties about the effect of reduced drainage inflows to the Sea resulting from water conservation within the IID water service area. Reduced drainage inflows are expected to accelerate the existing trend of increasing salinity at the Salton Sea, and concern has been expressed that this acceleration will affect implementation of a Salton Sea restoration project.

ES-9 UNRESOLVED ISSUES

The following issue still needs to be resolved associated with the implementation of the components of the Proposed Project:

- The Salton Sea is an agricultural drainage repository that has no legal rights or entitlements to Colorado River water. Implementation of any project element or mitigation strategy that would make available Colorado River water to the Salton Sea could subject that part of the project to a claim that it is not in compliance with the Law of the River and/or a claim that it is not a reasonable and beneficial use of water.

Table ES-1. Summary of Impacts and Mitigations

(Page 1 of 30)

<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT			
Water Resources	<p>Reduction in diversion of Colorado River water and limit on Priority 3a diversions by IID would not affect drainage patterns and runoff or flood hazard, and would not cause inundation. This reduction is not considered a significant impact.</p> <p>Reduced groundwater inflow from the lining of the All American Canal and a decrease in groundwater recharge in the IID service area are not considered significant.</p> <p>The decrease in the amount of water discharged from New River could result in increased TDS and selenium concentrations and decreased TSS, but this is considered a less than significant impact to water quality in the New River.</p> <p>The decrease in the amount of drainage water discharged into the Alamo River and IID drains could result in selenium concentrations exceeding the EPA Aquatic Life Criteria for Continuous Concentration, and thus impact biological resources in these areas. This impact would be significant and unavoidable to water quality.</p>	<p>No mitigation for increased selenium concentrations in the Alamo River and IID drains has been identified, and this is considered a significant and unavoidable impact to water quality.</p>	<p>Significant unavoidable impact due to increased selenium levels in the Alamo River and IID drains.</p>
Biological Resources	<p><i>Vegetation.</i> Losses of wet areas and phreatophytic vegetation from the All American Canal Lining Project are anticipated to be significant but would be mitigated to less-than-significant levels by habitat replacement and enhancement as part of that project. Potential alteration of emergent and in-channel vegetation along drains from on-farm conservation programs is considered significant. Construction activities associated with water conservation improvements have the potential to cause both temporary and permanent losses of phreatophytic or emergent vegetation, but impacts will likely be less-than-significant.</p>	<p>Mitigation measures for the All American Lining Project have been developed in the EIS/EIRs for this project and include the following: (1) site-specific surveys for sensitive species will be conducted. Species will be avoided or programs will be developed for replacement of the habitat or other compensation; (2) the canals will be restocked with channel catfish one time after completion of construction; (3) structures will be constructed to allow wildlife to escape if they enter the canal; (4) structures will be constructed in the canals to increase edge areas for fisheries; and (5) marsh and other seepage-fed habitats will be replaced, as necessary.</p>	<p>Less than significant with mitigation.</p>

Table ES-1. Summary of Impacts and Mitigations

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Resource	Description of Impact	Mitigation ¹ Measure	Residual Impact
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Biological Resources (continued)	<p><i>Fish and Wildlife.</i> The All American Canal Lining Project would reduce habitat for non-native fish, would decrease seepage-fed areas adjacent to the canal (which are important habitats wildlife species), and could cause temporary and permanent impacts to wildlife habitat in adjacent uplands. There is also a potential for large mammals to enter and drown in the canals. Changes in amount or composition of vegetation from conservation measures could adversely impact bird and amphibian species using that habitat, and would be considered a significant impact.</p> <p><i>Sensitive Species.</i> Construction-related activities may impact sensitive plant species, but selection of sites for such activities would consider environmental concerns and sensitive plants species. Conservation measures have the potential to impact desert pupfish and impacts could range from less-than-significant to significant but would be mitigable.</p>	<p>IID is preparing an HCP to address the impacts to sensitive species and the overall habitats within the IID service area as a result of conservation by IID in connection with the Project and IID's normal operations and maintenance. The conservation measures are incorporated in this EIR as potential mitigation measures. Non-Salton Sea components of the HCP that are intended to mitigate the impacts of any take of covered species that might occur as a result of the activities covered by the HCP, including the Proposed Project, within the IID service area and the Salton Sea include the following:</p> <ol style="list-style-type: none"> (1) <i>Tamarisk Scrub-Habitat Conservation Strategy:</i> Replacement of habitat disturbed through planting of mesquite bosques and/or cottonwood willow habitat. Additional habitat replacement where subsurface drainage is affected by canal construction or other activities; (2) <i>Drain Habitat Conservation Strategy:</i> IID would create at least 190 acres of managed marsh habitat to a maximum of 652 acres; (3) <i>Desert Habitat Conservation Strategy:</i> This strategy involves an extensive monitoring program and habitat replacement associated with construction of canals and other facilities within desert habitat; (4) <i>Burrowing Owl Conservation Strategy:</i> This strategy would involve pre-construction monitoring; avoidance, where possible, of nesting and foraging areas; and other methods, such as nest boxes, to mitigate any impact to the species; (5) <i>Desert Pupfish Conservation Strategy:</i> IID would manage its drains to minimize water quality impacts to the species and develop measures to enhance habitat within the drains. IID would also minimize impacts during maintenance of the drains to reduce any impact to the species; and (6) <i>Razorback Sucker Conservation Strategy:</i> Any fish found within the canals would be transported back to the Colorado River. 	

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Geology, Soils, and Minerals	<p>Construction activities associated with on-farm water conservation measures and water delivery system-based conservation measures could cause a temporary increase in wind and water erosion of bare soils. This is a potentially significant impact.</p> <p>Operation of water conservation measures could increase the long-term potential for soil, wind, and water erosion, but the amount of erosion would not be substantial because relatively small areas would be involved and standard Best Management Practices would be implemented. Impacts would not be significant.</p>	To minimize soil erosion from construction, one or more of the following measures could be implemented as standard operating practices during construction activities: (1) apply water to areas where vehicles and equipment are involved in ground-disturbing activities; (2) pave dirt roads or keep them wet; (3) increase water applications or reduce ground-disturbing activities with increasing wind speeds; (4) minimize the amount of disturbed area and vehicle speeds on site; (5) cover inactive soil stockpiles or treat them with soil binders, such as crusting agents; and (6) designate personnel to monitor erosion control program activities to ensure that they are effective in minimizing soil erosion.	Less than significant with mitigation.
Land Use	The water conservation measures, including fallowing, would not result in significant changes in land use because they would not physically divide an established community; conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or conflict with any applicable habitat conservation plan or natural community conservation plan.	No mitigation measures are required.	None.
Agricultural Resources	<p>On-farm or water delivery system water conservation measures would only require small amounts of land, and they would not result in the conversion of Important Farmland to non-agricultural use or conflict with Williamson Act contract lands in Imperial Valley. No significant impacts to agricultural resources would result.</p> <p>If fallowing is used exclusively to conserve the 300 KAFY required for transfer, approximately 50,000 acres of land (11 percent of the total amount of Important Farmland in Imperial County) could be fallowed annually. If fallowing is implemented so as to take farmland out of production on a short-term</p>	The only way to avoid or reduce the impact associated with the conversion of Important Farmland in the IID service area as a result of fallowing as a conservation measure is to utilize non-fallowing conservation measures or to utilize short-term fallowing, which does not result in conversion of Important Farmland to non-agricultural use; however, exclusive use of short-term fallowing may not be feasible for generating conserved water and use of agricultural land on a long-term basis may be required.	Potentially significant unavoidable impact due to the potential loss of Important Farmland in the IID service area.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Agricultural Resources (continued)	<p>basis, it would not result in the conversion of Important Farmland to non-agricultural use. However, if fallowing is implemented so as to take farmland out of production on a longer-term or permanent basis, resulting in the conversion of Important Farmland to non-agricultural use, it would be a significant impact to agricultural resources in the Imperial Valley. If additional agricultural land is fallowed to implement Mitigation Strategy 2, this would contribute to the potentially significant impact to agricultural resources.</p>		
Recreational Resources	<p>Construction activities associated with building a canal parallel to the existing All American Canal would temporarily disrupt camping. This impact would be short-term and less than significant. Use of the area around the canal by OHVs could present a hazard during construction, which would be a potentially significant impact.</p> <p>The existing canal would be maintained as an emergency canal and would not be available for recreational use, and hazards to OHVs associated with the existing canal would be avoided by taking steps necessary to prohibit and discourage use within the channel and would be less than significant.</p> <p>Construction of a parallel canal would adversely affect recreational fishing by reducing the habitat for sports fish. Lining also could reduce downstream numbers of sports fish by reducing in-canal reproduction. These impacts would be significant.</p> <p>The proposed water conservation measures, including fallowing, would be located in remote farm areas well removed from recreational areas used by the public and therefore would not impact recreational resources.</p>	<p>To minimize impacts to recreational fishing, mitigation measures include placing artificial reefs within the lined portion of the canal, conducting a channel catfish stocking program, or developing a recreational fishery resource in one or more regulating reservoirs in IID's distribution system.</p> <p>To minimize public inconvenience during construction of the All American Canal Lining Project and to ensure public safety, an interim recreation management plan would be developed jointly with BLM. The plan would include temporary closure of acreage needed for construction activities, signs at public access points, literature (handouts) informing visitors about the program and safety hazards, and modifications of public access to compensate for construction activities and to provide safe public access to observe construction at selected locations. The plan would address the patrol and surveillance requirements of the Immigration and Naturalization Service's Border Patrol.</p>	Less than significant with mitigation.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Air Quality	<p>Impacts from lining the All American Canal were evaluated in the EIS/EIR for that project and found to be not significant since fugitive dust from construction activities would be controlled by the application of water onto disturbed areas (USBR and IID 1994).</p> <p>Construction activities associated with on-farm water conservation measures improvements would impact air quality from combustive emissions due to the use of fossil fuel-fired construction equipment and fugitive dust (PM₁₀) emissions due to ground-disturbing activities. The impact of combustive emissions would be less than significant, but fugitive dust emissions could be significant from activities that disturb large amounts of soil.</p> <p>Air quality impacts due to the operation of on-farm water conservation measures would result primarily from the periodic maintenance of these systems, and the minor amounts of emissions that would result from these activities would cause less than significant air quality impacts. If fallowing is used to reduce water usage in the IID service area, there is a potential for significant fugitive dust emissions from the fallowed land.</p>	<p>Standard operating practices to minimize PM₁₀ and fugitive dust emissions that could be implemented include:</p> <ol style="list-style-type: none"> 1. Minimize the use of diesel-powered equipment where feasible. 2. Use alternative diesel fuels in construction equipment where feasible. 3. Use particulate traps on diesel-powered equipment. 4. Properly tune and maintain all construction equipment. 5. Apply water to areas where vehicles and equipment are involved in ground-disturbing activities. 6. Pave dirt roads, keep them wet, or apply non-toxic soil stabilizers, such as salts or detergents. 7. Increase water applications or reduce ground-disturbing activities with increasing wind speeds. 8. Minimize the amount of disturbed area and limit vehicle speeds onsite. 9. Cover inactive soil stockpiles or treat them with soil binders, such as crusting agents or water them to keep moist. 10. Cover trucks that haul soils or fine aggregate materials. 11. Designate personnel to monitor dust control program activities to ensure that they are effective in minimizing fugitive dust emissions. 12. Clean dirt from construction vehicle tires and undercarriages when leaving the construction site and before entering local roadways. 13. Sweep streets near the construction area at the end of the day if visible soil material is present. 14. Per SCAQMD Rule 403, for large construction sites (greater than 100 acres of disturbed area or daily earth-moving or throughput volume of 7,700 cubic meters) or medium operations (50 to 100 acres of disturbed area or daily earth-moving or throughput volume of 3,850 - 7,700 cubic meters) under a contingency notification, an approved fugitive dust emissions control plan must be prepared. 	Less than significant with mitigation.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Air Quality (continued)		<p>15. For applicable construction areas (such as pipeline alignments), establish a vegetative groundcover as soon as feasible after active operations have ceased. Groundcover will be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting.</p> <p>Best Management Practices that could be implemented to reduce fugitive dust emissions related to fallowing include: (1) implement conservation cropping sequences and wind erosion protection measures as outlined by the U.S. Department of Agriculture Natural Resources Conservation Service; (2) apply soil stabilization chemicals to fallowed fields; (3) re-apply drain or other unused water to allow protective vegetation to be established; and (4) reuse irrigation return flows to irrigate windbreaks across blocks of land including many fields to reduce emissions from fallowed, farmed, and other lands within the block.</p>	
Cultural Resources	<p>Construction of water conservation measures would involve ground disturbance that could impact an archaeological or paleontologic site or human remains. Most ground disturbance would take place in previously disturbed areas and, therefore, impacts to cultural resources would be unlikely. However, ground-disturbing activities still have the potential to impact a significant archaeological or paleontologic resource or human remains, particularly if those activities occur in previously undisturbed areas.</p> <p>Potentially significant impacts could result if implementation of Proposed Project components would require demolition or relocation of a significant historic architectural resource.</p>	<p>Mitigation measures included in the All American Canal Lining EIS/EIR include: (1) prior to construction, class III surveys would be conducted in the Pilot Knob area and along the entire length of the canal to be lined to determine the locations of cultural resources. Surveys also would be conducted at gravel quarries not previously surveyed; (2) if a site cannot be avoided, mitigation would include professionally recovering, documenting, and preserving the cultural resources as appropriate. Surveys and recovery activities would be coordinated with the California SHPO and the tribe with whom project coordination is in progress. To fulfill the requirements of the NHPA, Reclamation will enter into an agreement with the California SHPO, Native American tribes, BLM, other interested persons, and the Advisory Council on Historic Preservation. A Native American observer will be given the opportunity to participate in archaeological surveys in the Pilot Knob ACEC; and</p>	

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Cultural Resources (continued)		<p>(3) steps would be taken as part of an Interim Recreation Management Plan to deter the public from sensitive areas. Incidental contractor activity at the construction site would be restricted to a predetermined area. Each onsite construction contract would include provisions requiring the contractor to report cultural resources located during the construction activities and to cease construction activities in the immediate area of the located resources until professional cultural resources personnel inspect the site. In the event that cultural resources are discovered during construction, work would be suspended until evaluation and mitigation are complete.</p> <p>Impacts from other construction projects within the IID service area would be mitigated through site-specific CEQA review associated with each project.</p>	Less than significant with mitigation.
Noise	<p>Construction of water conservation measures would create short-term noise impacts from the use of various types of equipment. Construction would generally take place in rural, unpopulated areas, well away from noise-sensitive receptors. However, should noise-sensitive receptors, including riparian birds, be exposed to noise in excess of 75 dBA Leq when averaged over an 8-hour period, which would exceed the Imperial County construction noise standards, the impact would be significant.</p> <p>Operation of certain water conservation measures would require the operation of pumps that could generate long-term noise in excess of 70 dBA at 50 feet. Depending on the location of these pumps in relation to noise-sensitive receptors, noise from the pumps could exceed the Normally Acceptable noise/land use compatibility guideline of 70 dBA and the operational standards of the Imperial County General Plan, which would be a significant impact.</p>	<p>When construction occurs sufficiently close to noise-sensitive receptors so that noise from construction activities exceeds local regulatory standards or causes a substantial increase in ambient noise levels, the following measures could be implemented: (1) use hydraulically or electrically powered impact tools when possible (if the use of pneumatically powered tools is unavoidable, use an exhaust muffler on the compressed air exhaust); (2) install manufacturer's standard noise control devices, such as mufflers, on construction equipment; (3) locate stationary equipment as far as possible from noise-sensitive receptors; (4) notify nearby property users whenever extremely noisy work might occur; (5) use stockpiles as noise barriers when feasible; (6) keep idling of construction equipment to a minimum (no more than 30 minutes) when not in use; (7) install temporary or portable acoustic barriers around stationary construction noise sources; (8) as appropriate, modify noise enclosures with acoustical louvers, baffle walls, and/or acoustical panels; and (9) limit construction activities to non-mating, non-nesting seasons of noise-sensitive species.</p>	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Noise (continued)		To mitigate operational noise impacts, pumps could be located at sufficient distances from sensitive receptors to ensure that noise levels at the receptor do not exceed local noise standards. If there is no flexibility in their placement, barriers or enclosures could be constructed to ensure adherence to local standards.	
Aesthetics	The All American Canal Lining Project EIS/EIR identified no significant impacts to aesthetics from construction or operation of this component of the Proposed Project. Other water conservation measures, including fallowing, would be located in irrigated parts of the service area and would be visually compatible with the surrounding agricultural uses.	No mitigation measures are required.	None.
Hazards and Hazardous Materials	<p>Public safety impacts from lining the All American Canal would be avoided by constructing slipform ridges on the sideslopes of the canal to provide reliable handholds and footholds.</p> <p>The Proposed Project may temporarily impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan if construction activities are located in proximity to evacuation or other emergency routes. This would be a potentially significant impact.</p> <p>The proposed improvements would be located in agricultural areas and are not likely to be located on sites that are known to contain hazardous materials or are included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. If they were, impacts would be significant.</p>	<p>To mitigate temporary impacts to the implementation of an adopted emergency response plan or emergency evacuation plan, once specific sites are selected, the following procedures could be followed: determine whether construction would occur in a location that could interfere with the implementation of an emergency response plan or emergency evacuation plan. If so, the duration and location of construction and contacts for responsible parties would be given to providers of emergency services well before construction.</p> <p>To mitigate potential impacts from locating facilities on sites that are known to contain hazardous materials or are included on a list of hazardous materials sites to a less than significant level, if warranted, records searches would be conducted through California Environmental Protection Agency (Cal EPA), Long Beach Office and through a database search firm such as VISTA Info. The results of the search and any mitigation required if proposed construction encounters contaminated soils would be considered in the subsequent environmental documents prepared for the facilities. If required, mitigation measures may include but are not limited to relocating the facility to avoid the contamination or removal of contaminated soils.</p>	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
IMPERIAL IRRIGATION DISTRICT (CONTINUED)			
Public Services, Utilities and Transportation	<p>Implementation of the Proposed Project would not cause average power production at Drop Nos. 1, 2, 3, 4, 5, and East Highline to be less than the minimum amount of power generation over the last 15 years. This is not considered a substantial reduction in the facility's ability to produce power; therefore, the impact would not be significant.</p> <p>The minimal amount of short-term traffic that would be generated from the All American Canal Lining Project and construction of other water conservation measures would not significantly impact traffic conditions.</p> <p>Minimal maintenance of on-farm conservation measures and water delivery systems would be required and would be indistinguishable from routine farm activities.</p>	No mitigation measures are required.	None.
Population, Housing, and Employment	Based on a worst-case scenario, Imperial County could experience a net loss of up to 1,400 jobs, of which approximately 12% would come from the agricultural sectors (up to 1,300 jobs). Such a change would comprise just under 3 percent of the Year 2000 county employment level. This would not represent a significant impact to population, housing, or employment.	No mitigation measures are required.	None.
Water Resources	<p>The increase of Colorado River water supplies for use in the service area is a beneficial impact as it would correct the current groundwater overdraft problem in the Coachella Valley, and would increase drainage flows to the Salton Sea from the Coachella Valley.</p> <p>The voluntary limitation of Priority 3a diversions by CVWD at 330 KAFY would not adversely impact groundwater, drainage patterns and runoff, or flood hazard and would not cause inundation and is not considered a significant impact.</p> <p>Seepage from the Coachella Canal would be reduced through the proposed canal-lining project. Groundwater levels would be expected to decline near the newly lined section, but this is not considered significant to local groundwater resources.</p>	Should the impact to lower aquifer groundwater in the CVWD service area as a result of groundwater recharge cause any Torres Martinez Indian Reservation domestic drinking water well to exceed any recognized health-based water quality standard, CVWD will work with the Tribe to bring the drinking water supply of the Tribe into compliance by either providing domestic water service to the Tribe from the district's domestic water system or by providing appropriate well-head treatment.	Significant unavoidable water quality impacts due to increased selenium levels in the CVWD drains and to an increase in TDS of lower aquifer Upper Valley groundwater.

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Resource	Description of Impact	Mitigation ¹ Measure	Residual Impact
COACHELLA VALLEY WATER DISTRICT			
Water Resources (continued)	<p>The increase of Colorado River water supplies for use in the service area would result in an increase in TDS of agricultural return flows. This is a less than significant impact because water quality objectives would not be exceeded. It would also result in an increase of selenium in drain flows, which is considered a potentially and unavoidable significant impact.</p> <p>Additional flow in the Coachella Valley Stormwater Channel (CVSC) and drains would result in a potential increase in turbidity, but this is considered a less than significant impact. Groundwater recharge with Colorado River water in the Upper Valley would result in an increase in TDS of lower aquifer Upper Valley groundwater. This is considered a significant and unavoidable impact.</p>		
Biological Resources	<p><i>Vegetation.</i> Losses of wetland and riparian plant communities from the Coachella Canal Lining Project are potentially significant. Construction activities have the potential to cause both temporary and permanent losses of native vegetation, and impacts would be less than significant, particularly in previously disturbed areas, but could potentially be significant if native vegetation is permanently lost.</p> <p><i>Fish and Wildlife.</i> Constructing groundwater recharge facilities may impact wildlife habitat, but it is anticipated that these adverse impacts would be less than significant.</p> <p><i>Sensitive Species.</i> Construction-related activities may impact sensitive plant species, but selection of sites for such activities would consider environmental concerns and sensitive plants species. The Proposed Project has the potential to impact desert pupfish populations within the drains due to an increase in volume and velocity of the drain water. Although the magnitude of this impact cannot be precisely determined, this impact is considered potentially significant. The Coachella Canal Lining Project has the potential to adversely affect habitat for the Yuma</p>	<p>Mitigation measures for the lining of the Coachella Canal have been adopted as part of the EIS/EIR prepared for that project and include the following: (1) site-specific surveys for desert tortoise. Avoidance or relocation will be conducted for any tortoises found within construction areas; (2) the canals will be restocked with channel catfish once after completion of construction; (3) structures will be constructed to allow large mammals to escape if they enter the canal; and (4) structures will be constructed in the canals to increase edge areas for fisheries.</p> <p>Reclamation and CVWD have developed a plan to provide flow into Salt Creek to provide water for the marsh areas downstream of the Coachella Canal. Site-specific studies and mitigation measures would be developed when specific projects are developed for the recharge basins, pipelines, pump stations, and other new facilities. Site-specific surveys would be conducted at each potential facility site in order to determine if sensitive plant and animal species may be on the site. These include such species as the desert tortoise, flat-tailed horned lizard, and Palm Springs ground squirrel. Any potential impacts to</p>	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Biological Resources (continued)	clapper rail, California black rail, desert pupfish, and desert tortoise. The Dike 4 recharge facility may be constructed within critical habitat for the peninsular bighorn sheep.	<p>biological resources would be determined and mitigation measures developed. These measures could include habitat restoration on site or nearby, or use of an alternative site that does not have significant biological impacts.</p> <p>Specific mitigation measures for bighorn sheep and other resources could include: (1) no persistent pesticides would be used at the recharge basin sites; (2) no sheep would be handled unless they are in immediate danger; (3) vehicle travel on the basin site would be no more than 20 mph; (4) hydroseeding with native species for erosion control would be provided for disturbed areas that were vegetated before project construction, as appropriate; (5) construction would be conducted outside the lambing season; (6) workers would be prohibited from bringing dogs, or other pets, or firearms to the site during construction or operation of the facilities; and (7) a Worker Environmental Awareness Training Program for construction personnel would be conducted.</p> <p>A monitoring program would be developed for the pupfish in the drain system of CVWD. If the monitoring indicates a potential adverse effect to these species, specific mitigation measures would be developed in coordination with the Service and CDFG. These measures could include creation of additional habitat, modification of drain flows, or other measures identified in the CVMSHCP or a site-specific HCP.</p>	

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Geology, Soils, and Minerals	<p>Earthmoving during construction of new facilities could cause a temporary increase in wind and water erosion of bare soils, which could significantly increase the short-term potential for localized wind and water erosion.</p> <p>If groundwater levels increase to within 30 feet of the ground surface under habitable structures or important infrastructure, the liquefaction hazard could increase, which would be a potentially significant impact.</p>	<p>To minimize soil erosion from construction, one or more of the following measures could be implemented as standard operating practices during construction activities: (1) apply water to areas where vehicles and equipment are involved in ground-disturbing activities; (2) pave dirt roads or keep them wet; (3) increase water applications or reduce ground-disturbing activities with increasing wind speeds; (4) minimize the amount of disturbed area and vehicle speeds on site; (5) cover inactive soil stockpiles or treat them with soil binders, such as crusting agents; and (6) designate personnel to monitor erosion control program activities to ensure that they are effective in minimizing soil erosion.</p> <p>To mitigate the potential significant impact from increased risk of liquefaction in the Coachella Valley, CVWD would monitor water levels in the vicinity of recharge basins and manage recharge operations such that water levels would remain greater than 30 feet below the ground surface near the recharge site.</p>	Less than significant with mitigation.
Land Use	No aspects of the Proposed Project would significantly alter land uses. New facilities would likely be located in rural or remote areas, and these facilities would not physically divide an established community.	No mitigation measures are required.	None.
Agricultural Resources	<p>The water source for agriculture would now be primarily Colorado River water, which has good infiltration characteristics that would benefit some agricultural users.</p> <p>Construction of recharge facilities could have a significant effect on agricultural resources if they were located in agricultural areas because they could convert farmland to a non-agricultural use. As specific sites for the recharge facilities are located, additional environmental review will be conducted that will identify impacts to agricultural resources.</p>	Recharge basins in the CVWD service area should not be located on land that is designated as Important Farmland, zoned for agricultural use, or subject to a Williamson Act contract.	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Recreational Resources	<p>Construction activities during the lining of the Coachella Canal would temporarily disrupt some recreational uses of the area. Construction could block access to a recreational trail on BLM lands, the Bradshaw Trail, which would be a significant impact.</p> <p>Seasonal RV campers would be exposed to construction traffic but would not be constrained by construction. Once completed, the canal lining would have no effect on access or general recreational opportunities in the area. A traffic control plan has been incorporated as a project feature that would minimize impacts to recreational visitors.</p> <p>Lining the canal would result in a reduction in the amount of fish available to anglers, but this impact would not be significant. The mitigation for the fishery that is required by P.L. 100-675, in which Congress authorized the canal-lining project, would maintain fish populations at approximately the same level.</p> <p>Construction of pumping stations, pipelines, and recharge basins would be unlikely to affect recreational resources since they would be located in agricultural or remote areas. Such construction would be evaluated in future site-specific environmental documents.</p>	<p>To mitigate short-term construction impacts to canal fisheries, channel catfish would be stocked once construction is completed. To mitigate permanent impacts to the canal fishery, artificial reefs would be installed and maintained in the newly lined portions of the canal. If the artificial reefs do not function as expected, the canal would be stocked with channel catfish at a rate that would maintain the fish population at pre-project levels or an alternative method of supporting the fish population would be identified by Reclamation and CVWD.</p> <p>To mitigate the potential impact from obstruction of the Bradshaw Trail, OHV access along the Bradshaw Trail would be maintained during construction (for example, by posting signs directing visitors to alternate locations where they may cross the Coachella Canal when siphon 24 is blocked by construction activity).</p>	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Air Quality	<p>The Coachella Canal Lining Project EIS/EIR (USBR and CVWD 2001) determined that PM₁₀ emissions (due to fugitive dust) from construction activities would constitute a significant impact even after mitigation. However, this impact would only last for the duration of construction activities.</p> <p>Development of other new facilities would generate air pollutant emissions (NO_x and PM₁₀) from construction-related activities. These activities would cause temporary impacts to local air quality and would be significant if they exceeded air pollutant thresholds established by the SCAQMD within the SCAB Project region. Due to their short-term nature, construction-related activities would not interfere with attainment of the national and state ambient air quality standards over the long term.</p> <p>Operation of facilities associated with implementation of the Proposed Project would have minimal impacts to air quality.</p>	<p>If proposed construction activities within the SCAB exceed a SCAQMD NO_x emission threshold, one or more of the following measures could be implemented: (1) retard injection timing by 2 degrees on diesel-powered equipment; (2) properly tune and maintain all construction equipment; and (3) use low-NO_x engines, alternative fuels, electrification, and other advanced technologies, whenever feasible.</p> <p>Standard operating practices to minimize combustive and fugitive dust emissions that could be implemented include:</p> <ol style="list-style-type: none"> 1. Minimize the use of diesel-powered equipment where feasible. 2. Use alternative diesel fuels in construction equipment where feasible. 3. Use particulate traps on diesel-powered equipment. 4. Properly tune and maintain all construction equipment. 5. Apply water to areas where vehicles and equipment are involved in ground-disturbing activities. 6. Pave dirt roads, keep them wet, or apply non-toxic soil stabilizers, such as salts or detergents. 7. Increase water applications or reduce ground-disturbing activities with increasing wind speeds. 8. Minimize the amount of disturbed area and limit vehicle speeds onsite. 9. Cover inactive soil stockpiles or treat them with soil binders, such as crusting agents or water them to keep moist. 10. Cover trucks that haul soils or fine aggregate materials. 11. Designate personnel to monitor dust control program activities to ensure that they are effective in minimizing fugitive dust emissions. 12. Clean dirt from construction vehicle tires and undercarriages when leaving the construction site and before entering local roadways. 13. Sweep streets near the construction area at the end of the day if visible soil material is present. 	<p>Temporary significant unavoidable impact due to the lining of the Coachella Canal.</p>

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Air Quality (continued)		<p>14. Per SCAQMD Rule 403, for large construction sites (greater than 100 acres of disturbed area or daily earth-moving or throughput volume of 7,700 cubic meters) or medium operations (50 to 100 acres of disturbed area or daily earth-moving or throughput volume of 3,850 – 7,700 cubic meters) under a contingency notification, an approved fugitive dust emissions control plan must be prepared.</p> <p>15. For applicable construction areas (such as pipeline alignments), establish a vegetative groundcover as soon as feasible after active operations have ceased. Groundcover will be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting.</p> <p>Standard operating practices to minimize PM₁₀ and fugitive dust emissions from proposed construction activities include:</p> <ol style="list-style-type: none"> 1. Implement conservation cropping sequences and wind erosion protection measures as outlined by the USDA Natural Resources Conservation Service, such as: <ul style="list-style-type: none"> – Plan ahead to start with plenty of vegetative residue and maintain as much residue on fallowed fields as possible. Residue is more effective for wind erosion protection if left standing. – If residues are not adequate, small grain can be seeded to take advantage of winter rains and lightly irrigated as needed to get adequate growth. – Avoid any tillage, if possible. – Avoid any traffic when fields are dry to avoid pulverization. 2. Apply soil stabilization chemicals to fallowed fields. 3. Re-apply drain or other unused water to allow protective vegetation to be established. 4. Reuse irrigation return flows to irrigate windbreaks across blocks of land including many fields to reduce emissions from fallowed, farmed, and other lands within the block. Windbreak species, management, and layout would be optimized to achieve the largest feasible dust emissions reduction per unit water available for their irrigation. Windbreak corridors would provide ancillary aesthetic and habitat benefits. 	

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Cultural Resources	<p>Any physical alteration of the Coachella Canal would be a potentially significant impact requiring mitigation.</p> <p>Construction of new facilities and canal lining would involve ground disturbance that could impact an archaeological or paleontologic site or human remains. Most ground disturbance would take place in previously disturbed areas and, therefore, impacts to cultural resources would be unlikely. However, ground-disturbing activities still have the potential to impact a significant archaeological or paleontologic resource or human remains, particularly if those activities occur in previously undisturbed areas.</p> <p>Potentially significant impacts could result if implementation of Proposed Project components would require demolition or relocation of a significant historic architectural resource.</p>	<p>The following environmental commitments and mitigation measures were included in the Coachella Canal Lining Project EIS/EIR: (1) all cultural resource activities will be conducted in accordance with 36 CFR 800 and in consultation with the California SHPO, BLM for public domain land, and as appropriate, the Federal Advisory Council on Historic Preservation; (2) should any burial sites be encountered during construction, they will be treated pursuant to the procedures outlined in the NAGRPA; (3) prior to construction, a detailed construction plan will be developed. To minimize impacts, existing roads and staging areas will be used wherever possible. New borrow areas (other than the canal-bank spoil piles) and access roads will require a Class III survey unless the compliance process was completed within the past 5 years. All areas potentially affected, as well as areas to be disturbed for new habitat planting, will also have Class III surveys; (4) avoidance will be utilized to the extent possible; (5) continuation of consultations with the Cahuilla Indian community and other area Native American tribal organizations should serve to recognize their interests and develop appropriate solutions to any issues. If impacts occur, mitigation would consist of professional recovery of cultural resources or development, where possible, of means to avoid impacts; and 6) appropriate documentation about the Coachella Canal will be prepared that is equivalent to a Historic American Engineering Record.</p> <p>Impacts from other construction projects within the CVWD service area would be mitigated through site-specific CEQA review associated with each project component.</p>	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Noise	<p>Construction of new facilities would create short-term, noise impacts from the use of various types of equipment. Construction would generally take place in rural, unpopulated areas, well away from noise-sensitive receptors. However, should they be constructed in proximity to noise-sensitive receptors, impacts could be significant.</p> <p>Pump stations and routine maintenance activities would generate operations-related noise. Although pumps likely would be located in rural, sparsely populated areas and generally would be equipped with electric motors, if they were located in proximity to noise-sensitive receptors, impacts could be significant. Routine maintenance activities would not cause significant noise impacts.</p>	<p>When construction occurs sufficiently close to noise sensitive receptors so that noise from construction activities exceeds local regulatory standards or causes a substantial increase in ambient noise levels, the following measures could be implemented: (1) use hydraulically or electrically powered impact tools when possible (if the use of pneumatically powered tools is unavoidable, use an exhaust muffler on the compressed air exhaust); (2) install manufacturer’s standard noise control devices, such as mufflers, on construction equipment; (3) locate stationary equipment as far as possible from noise sensitive receptors; (4) notify nearby property users whenever extremely noisy work might occur; (5) use stockpiles as noise barriers when feasible; (6) keep idling of construction equipment to a minimum (no more than 30 minutes) when not in use; (7) install temporary or portable acoustic barriers around stationary construction noise sources; (8) as appropriate, modify noise enclosures with acoustical louvers, baffle walls, and/or acoustical panels; and (9) limit construction activities to non-mating, non-nesting seasons of noise-sensitive species.</p> <p>To mitigate operational noise impacts, pumps could be located at sufficient distances from sensitive receptors to ensure that noise levels at the receptor do not exceed local noise standards. If there is no flexibility in their placement, barriers or enclosures could be constructed to ensure adherence to local standards.</p>	Less than significant with mitigation.
Aesthetics	The Coachella Canal Lining Project EIS/EIR identified no significant impacts to aesthetics from construction or operation of this component of the Proposed Project. Construction of new facilities would likely be visually compatible with existing uses of the area, and impacts would not be significant. However, should pipelines or pump stations be located in a visually sensitive area, impacts could be significant.	To reduce potential impacts from the construction of pipelines and pumping stations, pipelines and pumping stations would be located in agricultural areas to the extent feasible. As appropriate, pipelines would be buried along existing roadways or located on the edges of agricultural fields. To the extent feasible, pumping stations would be small, low structures painted in pale earth tones to blend with the native soils.	Less than significant with mitigation.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
<p>Hazards and Hazardous Materials</p>	<p>Public safety impacts from lining the Coachella Canal would be avoided by constructing slipform ridges on the sideslopes of the canal to provide reliable handholds and footholds. Impacts would be less than significant.</p> <p>The construction and operation of new facilities would not have significant safety impacts. However, mosquito habitat could be created in the new recharge basins, which would be a potentially significant impact.</p> <p>The Proposed Project may temporarily impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan if construction activities are located in proximity to evacuation or other emergency routes. This would be a potentially significant impact.</p> <p>The proposed improvements would be located in agricultural or remote areas and are not likely to be located on sites that are known to contain hazardous materials or are included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. If they were, impacts would be significant.</p>	<p>To reduce the potential for mosquitoes to breed in any CVWD recharge basins if constructed, the design of the recharge basins would incorporate design and operation parameters that discourage mosquitoes and the establishment of their habitat.</p> <p>To mitigate temporary impacts to the implementation of an adopted emergency response plan or emergency evacuation plan, once specific sites are selected, it would be determined whether construction would occur in a location that could interfere with the implementation of an emergency response plan or emergency evacuation plan. If so, the duration and location of construction and contacts for responsible parties would be given to providers of emergency services well before construction.</p> <p>To mitigate potential impacts from locating facilities on sites that are known to contain hazardous materials or are included on a list of hazardous materials sites to a less than significant level, if warranted, records searches will be conducted through California Environmental Protection Agency (Cal EPA), Long Beach Office and through a database search firm such as VISTA Info. The results of the search and any mitigation required if proposed construction encounters contaminated soils will be considered in the subsequent environmental documents prepared for the facilities. If required, mitigation measures may include but are not limited to relocating the facility to avoid the contamination or removal of contaminated soils.</p>	<p>Less than significant with mitigation.</p>

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COACHELLA VALLEY WATER DISTRICT (CONTINUED)			
Public Services, Utilities and Transportation	<p>Recharge basins may require storm flow management facilities; these will be addressed once specific sites are selected.</p> <p>Construction of new facilities could cause temporary disruption of present traffic patterns and increases in traffic hazards, or availability of parking on local roadways. Given the existing favorable conditions and the short duration of construction, impacts would not be significant unless construction occurred in the immediate vicinity of heavily traveled roadways and intersections.</p> <p>Pipelines, pumping stations, and recharge basins would likely be located in rural or undeveloped areas away from schools or providers of emergency services. However, if construction occurred near such facilities, it could restrict emergency access, which would be a significant but mitigable impact.</p> <p>As noted in the Coachella Canal Lining Project EIS/EIR, a traffic control plan is incorporated as a project feature, which would avoid significant transportation impacts from construction of this project. No significant long-term impacts would occur.</p>	<p>To reduce the potential impact from construction in the vicinity of schools or emergency services facilities in the CVWD service area, nearby schools and emergency service providers would be notified of construction prior to its onset, and a traffic control plan would be developed to ensure that access and emergency response are possible at all times.</p> <p>Although not expected, if a significant transportation impact is identified near high-volume roadways and intersections in the CVWD service area, one or more of the following measures could be implemented to reduce impacts to a less-than-significant level: (1) to mitigate temporary traffic disruption and ensure public safety, traffic control plans would be prepared for construction sites in or near higher traffic volume roadways (the plans would be provided to and approved by, as applicable, Caltrans, the individual City departments, the County of Riverside, and local providers of emergency services); and (2) high-volume intersections would be avoided if possible.</p>	Less than significant with mitigation.
Population, Housing, and Employment	No aspects of the Proposed Project would significantly impact population, housing, or employment.	No mitigation measures are required.	None.
METROPOLITAN WATER DISTRICT			
Water Resources	Colorado River water diversions by MWD would replace a portion of the previously diverted surplus and unused apportionment water with Priority 3a water. This change in diversions is not considered a significant impact to water resources, as this water would replace previously diverted surplus and unused apportionments water, and would not impact water quality, groundwater, drainage patterns and runoff, or flood hazard and would not cause inundation.	No mitigation measures are required.	None.

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
METROPOLITAN WATER DISTRICT (CONTINUED)			
Biological Resources	No significant biological impact in the MWD service area would occur from implementation of the Proposed Project.	No mitigation measures are required.	None.
Geology, Soils, and Minerals	No new construction or changes in the operation of existing facilities would occur that would impact geology, soils, or minerals.	No mitigation measures are required.	None.
Land Use	No new construction or operational changes would occur in this service area that would physically divide the local community or otherwise result in a direct change to land use pattern.	No mitigation measures are required.	None.
Agricultural Resources	No impacts would occur because the amount of water available for agricultural use would not change, nor would any aspects of the Proposed Project cause the conversion of farmland or otherwise impede the use of agricultural lands.	No mitigation measures are required.	None.
Recreational Resources	No construction would occur in this service area, nor would any operational changes that would cause the direct, substantial physical degradation of either public recreation uses or public recreational facilities. No impacts to recreational resources would occur.	No mitigation measures are required.	None.
Air Quality	No construction or substantial changes in operations would occur within the MWD service area. Implementation of the Proposed Project would not result in potentially significant air quality impacts.	No mitigation measures are required.	None.
Cultural Resources	Implementation of the Proposed Project would not require the construction of new MWD facilities or the modification of existing MWD facilities. Impacts to cultural resources, therefore, would not occur because no new ground-disturbing activities would be required.	No mitigation measures are required.	None.
Noise	The Proposed Project would not generate noise in the MWD service area since no construction or operational changes would occur.	No mitigation measures are required.	None.
Aesthetics	Because no construction or changes in development patterns would occur in this service area as part of the Proposed Project, no visual impacts would occur.	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
METROPOLITAN WATER DISTRICT (CONTINUED)			
Hazards and Hazardous Materials	No aspects of the Proposed Project would cause safety impacts in the MWD service area since no construction or operational changes would occur. The transfer of water that would occur under the Proposed Project would not result in exposure of the public to new hazardous situations or create sufficient mosquito habitat to pose a threat to public health.	No mitigation measures are required.	None.
Public Services, Utilities and Transportation	No significant impacts associated with public services, utilities, or transportation would occur.	No mitigation measures are required.	None.
Population, Housing, and Employment	Implementation of the Proposed Project would not affect population, housing, or employment in the MWD service area.	No mitigation measures are required.	None.
SAN DIEGO COUNTY WATER AUTHORITY			
Water Resources	Implementation of the Proposed Project would not result in a substantial change to the total quantity or quality of imported water delivered to SDCWA; transfer water from IID would replace a portion of water currently purchased from MWD. The Proposed Project would not impact groundwater, drainage patterns and runoff, or flood hazard; and would not cause inundation. Changes to water quality are less than significant.	No mitigation measures are required.	None.
Biological Resources	No significant biological impact in the SDCWA service area would occur from implementation of the Proposed Project.	No mitigation measures are required.	None.
Geology, Soils, and Minerals	No new construction or changes in the operation of existing facilities would occur that would impact geology, soils, or minerals.	No mitigation measures are required.	None.
Land Use	No new construction or operational changes would occur in this service area that would physically divide the local community or otherwise result in a direct change to land use pattern.	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
SAN DIEGO COUNTY WATER AUTHORITY (CONTINUED)			
Agricultural Resources	No impacts would occur because the amount of water available for agricultural use would not change, nor would any aspects of the Project cause the conversion of farmland or otherwise impede the use of agricultural lands.	No mitigation measures are required.	None.
Recreational Resources	No construction would occur in this service area, nor would any operational changes that would cause the direct, substantial physical degradation of either public recreation uses or public recreational facilities. No impacts to recreational resources would occur.	No mitigation measures are required.	None.
Air Quality	No construction or substantial changes in operations would occur within the SDCWA service area. Implementation of the Proposed Project would not result in potentially significant air quality impacts.	No mitigation measures are required.	None.
Cultural Resources	Implementation of the Proposed Project would not require the construction of new SDCWA facilities or the modification of existing SDCWA facilities. Impacts to cultural resources, therefore, would not occur because no new ground-disturbing activities would be required.	No mitigation measures are required.	None.
Noise	The Proposed Project would not generate noise in the SDCWA service area since no construction or operational changes would occur.	No mitigation measures are required.	None.
Aesthetics	Because no construction or changes in development patterns would occur in this service area as part of the Proposed Project, no visual impacts would occur.	No mitigation measures are required.	None.
Hazards and Hazardous Materials	No aspects of the Proposed Project would cause safety impacts in the SDCWA service area since no construction or operational changes would occur. The transfer of water that would occur under the Proposed Project would not result in exposure of the public to new hazardous situations or create sufficient mosquito habitat to pose a threat to public health.	No mitigation measures are required.	None.
Public Services, Utilities and Transportation	No significant impacts associated with public services, utilities, or transportation would occur.	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
SAN DIEGO COUNTY WATER AUTHORITY (CONTINUED)			
Population, Housing, and Employment	Implementation of the Proposed Project would not affect population, housing, or employment in the SDCWA service area.	No mitigation measures are required.	None.
COLORADO RIVER			
Water Resources	<p>Transfers under the Proposed Project would shift diversion of between 183 KAF and 388 KAF from Imperial Dam to Parker Dam, decreasing flow in this reach. With full implementation of QSA transfer diversions, the change in median water surface elevation would be no more than 0.4 feet between Parker Dam and Imperial Dam. The reduction in flows due to the Proposed Project could potentially result in a decrease in as much as 35 surface acres of the open water in the main channel, 17 surface acres of open water in backwaters, and 28 acres of emergent vegetation in backwaters.</p> <p>Changes in water surface elevation in Lake Mead and the Colorado River between Hoover Dam and Imperial Dam are not an impact to hydrologic resources, but could impact other resources. Reductions in flow to the River in the Parker to Imperial reach, while not a significant impact to hydrologic resources, could affect other resource areas.</p> <p>The Proposed Project could increase salinity by as much as 1 mg/L below Hoover Dam and by as much as 8 mg/L at Imperial Dam. It is assumed, however, that additional salinity control measures under the provisions of the Colorado River Salinity Control Act would be implemented and water quality objectives would be met.</p>	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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Resource	Description of Impact	Mitigation ¹ Measure	Residual Impact
COLORADO RIVER (CONTINUED)			
Biological Resources	<p><i>Vegetation.</i> Potential drop in median groundwater levels could impact riparian vegetation with shallow or slow-growing roots (i.e., cottonwood and willow trees) along the outward fringes of the riparian zone. This impact to aquatic, marsh, and riparian vegetation is considered a potentially significant impact.</p> <p><i>Fish and Wildlife.</i> Implementation of the Proposed Project has the potential to reduce aquatic wetland and riparian habitat along the Colorado River that is used by fish, amphibians, reptiles, riparian and marsh obligate birds, and mammals. This potential loss of habitat would potentially be a significant impact.</p> <p><i>Sensitive Species.</i> Potential loss of backwater area and main channel habitat would be a potentially significant impact. The potential reduction in emergent vegetation may result in the reduction of habitat for the Yuma clapper rail and the California black rail, and would be considered a potentially significant impact. There is a potential, but less well-defined impact to riparian vegetation along the lower Colorado River, which could affect the southwestern willow flycatcher, yellow-billed cuckoo, Arizona Bell’s vireo, elf owl, Gila woodpecker, and gilded flicker. Impact to this habitat would be considered potentially significant.</p>	<p>Mitigation/conservation measures were identified in the Biological Opinion (USFWS 2001) to mitigate impacts to sensitive habitat and special status species along the lower Colorado River. These measures include: (1) stocking razorback suckers into the Colorado River between Parker and Imperial dams; (2) restoring or creating 44 acres of backwater habitat along the lower Colorado River between Parker and Imperial dams; (3) providing 5-year funding for the capture of wild-born or F1 generation of bonytails from Lake Mohave; and (4) implementing a two-tiered conservation plan, which includes restoration of 372 acres of riparian vegetation, to minimize the impact to willow flycatcher and other riparian species.</p> <p>If impacts to California-listed species require issuance of a take authorization pursuant to the CESA, consultation with CDFG will be initiated. Other actions, similar to measures described above may be employed, as appropriate, to further reduce impacts to California-listed species. These potential actions may include: (1) removal and control of exotic species and other pest management measures; (2) purchase of conservation easements or fee title lands for long-term preservation; and (3) construction of nesting boxes or other platforms.</p>	Less than significant with mitigation.
Geology, Soils, and Minerals	The slight lowering of the Colorado River’s median water surface elevation would be gradual, minimizing the potential for erosion. This impact would not be significant in either California or Arizona.	No mitigation measures are required.	None.
Land Use	The Proposed Project would not result in any construction or changes to land use patterns around the Colorado River, either in California or Arizona.	No mitigation measures are required.	None.
Agricultural Resources	Implementation of the Proposed Project would not result in any changes in water supply to or otherwise affect any agricultural land immediately adjacent to the Colorado River in either California or Arizona. No significant impact to agricultural resources would occur.	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
COLORADO RIVER (CONTINUED)			
Recreational Resources	The median water surface elevation of the Colorado River would change slightly, but no recreational facilities or water-oriented activities would be affected. No significant changes in the median water surface elevation of the lakes that are fed by the River would occur, and the Proposed Project would not significantly affect wildlife, fish, or any recreational activities that are dependent upon these resources, including sport fishing.	No mitigation measures are required.	None.
Air Quality	Decrease in river flow would intermittently expose land in California and Arizona that is currently submerged along the Colorado River. However, this change would be within the range of historic fluctuations of the River and would not increase the amount of land that would be exposed and subject to increased fugitive dust emissions. This impact would be less than significant.	No mitigation measures are required.	None.
Cultural Resources	The change in median water surface elevation of the Colorado River and backwaters from the implementation of the Proposed Project would be less than significant in comparison to the daily and seasonal fluctuations that currently occur. Impacts to cultural resources would therefore be less than significant.	No mitigation measures are required.	None.
Noise	The only change to the Colorado River area would be associated with different median water levels, flow rates, etc. No noise would be generated from Proposed Project components in this area, either in California or Arizona.	No mitigation measures are required.	None.
Aesthetics	Although the Proposed Project would result in a slight decrease in median water surface elevation, the decrease would be within the River's normal range of fluctuation and would not produce a perceptible change to its visual qualities.	No mitigation measures are required.	None.
Hazards and Hazardous Materials	Implementation of the Proposed Project would not affect public safety or result in significant impacts associated with hazards and hazardous materials along the River either in California or Arizona. No construction or other changes would occur that would in any way affect public safety.	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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Resource	Description of Impact	Mitigation ¹ Measure	Residual Impact
COLORADO RIVER (CONTINUED)			
Public Services, Utilities and Transportation	Slight changes in hydropower generation would not represent a substantial decrease and would not be significant. The Project would not cause construction, population changes, or any other actions that would affect public services, utilities, or transportation systems near the Colorado River, either in California or Arizona.	No mitigation measures are required.	None.
Population, Housing, and Employment	There would be a slight decrease in median water surface elevation between Parker and Imperial dams, but this would not be sufficient to adversely affect tourism or other economic activities in California or Arizona. Any such reductions in revenues from tourist activities and the associated jobs would be negligible.	No mitigation measures are required.	None.
SALTON SEA			
Water Resources	The Proposed Project would result in decreased flows to the Salton Sea and this, combined with evaporation, would act to lower the mean water surface elevation, decrease surface area, and increase salinity concentrations of the Sea. Decreased mean water surface elevation and decreased surface area would represent less than significant impacts to hydrology. There is no water quality criterion for salinity in the Salton Sea and, therefore, increased salinity would not be a significant impact when compared to current trends.	No mitigation measures are required.	None.
Biological Resources	<p><i>Vegetation.</i> The accelerated decline in Salton Sea water surface elevation caused by the implementation of the Proposed Project has the potential to result in the loss of tamarisk scrub vegetation. This impact to vegetation is considered adverse, but not significant, since the impact would be to non-native vegetation. No significant impact to managed marsh vegetation would occur since the hydrology of these areas is not dependent upon the Salton Sea.</p> <p><i>Fish and Wildlife.</i> The acceleration of the increase in salinity of the Salton Sea would likely change the species composition of the invertebrate and fish populations and cause a decline in their general population size. The impact to fisheries (more rapid loss) is considered less than significant since these</p>	Mitigation Strategy 2 has been developed by IID, in consultation with USFWS and CDFG, to mitigate the earlier reduction in fish abundance expected from the acceleration of the salinization of the Salton Sea as a result of the Proposed Project.	Less than significant with mitigation.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
SALTON SEA (CONTINUED)			
Biological Resources (continued)	species are not native to the Salton Sea. Any loss of wetland or riparian habitat would reduce wildlife habitat, and could have adverse, but not significant impacts for species dependent upon those habitats. The loss of food sources for fish-eating birds is considered a potentially significant impact. Bird populations that feed on invertebrates may potentially be affected sooner as well, but the level of impact is considered adverse, but not significant since the invertebrate populations that birds would feed upon is expected to remain.		
Biological Resources (continued)	<i>Sensitive Species.</i> The accelerated change in the natural habitat of the desert pupfish is considered a potentially significant impact. Significant impacts would occur to the California brown pelican, black skimmer, double-crested cormorant, and other resident and migratory birds that forage on fish.		
Geology, Soils, and Minerals	The lower elevation of the Salton Sea would cause additional bare soil to be exposed, but the high salt content of the Sea and the underlying soils would cause a crust to form as the soils dried. This crust should be fairly stable and resistant to erosion. Impacts would be less than significant.	No mitigation measures are required.	None.
Land Use	The acceleration in the Salton Sea's salinity would not physically divide the local community or otherwise result in a direct change to land use patterns, although this could affect the area's desirability for recreational use.	No mitigation measures are required.	None.
Agricultural Resources	The Salton Sea itself does not contain agricultural resources, and the changes to Sea elevation and salinity would not affect nearby agricultural lands. No significant impact to agricultural resources would occur.	No mitigation measures are required.	None.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
SALTON SEA (CONTINUED)			
Recreational Resources	<p>Decreasing water surface elevation of the Salton Sea would affect existing recreational facilities, some of which would have to be relocated (i.e., campgrounds, docks) or re-established (i.e., roads and trails leading to the water). Decreasing water levels would expose footings and other remnants of campgrounds that are currently underwater. The impact to developed recreational facilities from decreased water levels, therefore, is considered significant.</p> <p>Increased salinity would hasten the decrease in the number of fish that live in the Salton Sea, adversely affecting sport fishing opportunities. This would be a significant impact.</p>	<p>If the decrease in the water surface elevation of the Salton Sea results in the exposure of public docks, launch ramps, or other public structures, thus precluding their intended use, then funding could be provided for the relocation of these facilities in proportion to the water elevation decrease that is attributable to the Proposed Project. Footings and other remnants of campgrounds that are exposed due to the accelerated decline in water surface elevation of the Salton Sea would be removed.</p> <p>Alternatively, implementation of Mitigation Strategy 2 would avoid impacts associated with the decline in Salton Sea water surface elevation. This potentially feasible measure would reduce the impacts to recreational facilities, such as newly exposed docks, launch ramps, and campground remnants, to a less-than-significant level. Mitigation Strategy 2 also would mitigate impacts to sport fishing to a less-than-significant level.</p>	<p>Significant and unavoidable impact to sport fishing, if Mitigation Strategy 2 is not adopted.</p>
Air Quality	<p>Although the new shoreline created by reduced inflows to the Salton Sea would only marginally increase the total land area within the ROI that presently generates fugitive dust, emissions from these areas would be significant due to the PM10 nonattainment status of the region.</p> <p>Decreased water flow and quality in the Salton Sea could contribute to the premature death of flora and fauna and/or increase the summertime algae blooms, either or both of which would contribute to odorous emissions. However, as a result of low population levels around the Sea, it is not likely that the Proposed Project would create objectionable odors affecting a substantial number of people. This impact would be less than significant.</p>	<p>Implementation of Mitigation Strategy 2 would avoid fugitive dust impacts associated with the decline in Salton Sea water surface elevation since additional water would be conserved by IID and would be allowed to flow to the Salton Sea. This potentially feasible measure would reduce impacts to air quality to a less-than-significant level. As the IID Water Conservation and Transfer Project becomes more defined, additional mitigation measures to address air quality impacts may be identified.</p>	

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
SALTON SEA (CONTINUED)			
Cultural Resources	Reduction of the current and projected surface area of the Salton Sea may expose previously submerged cultural resources, which would leave those resources susceptible to site erosion and looting. This could result in a significant impact to cultural resources.	IID could conduct a series of archaeological and paleontological surveys at regular intervals (once every 3 years) to check the freshly exposed lands for the presence/absence of archaeological or paleontological sites. Future ground-disturbing projects would be subject to CEQA review (or in the case of tribal lands, would be subject to federal oversight by the Bureau of Indian Affairs following Section 106 compliance pathways). Tribal permission would be obtained before entry onto tribal lands. Alternatively, implementation of Mitigation Strategy 2 would avoid impacts associated with the decline in Salton Sea elevation. This potentially feasible measure would reduce impacts to cultural resources to a less than significant level.	Less than significant with mitigation.
Noise	The only changes to the Salton Sea area would be associated with reduced inflow. No activities that generate noise would occur.	No mitigation measures are required.	None.
Aesthetics	Views of the Salton Sea from some public areas would include increased dry land and decreased open water. The exposed area would look like the existing beach, but views of the water from the developed public viewing facilities would be from a much greater distance. The change would be very gradual, and the visual impact would not be perceptible except over a long period, but ultimately, the impact would be significant.	The following measures could be implemented on an on-going basis as the Sea recedes until it reaches its lowest and stable elevation, at which point they shall be permanent. <ul style="list-style-type: none"> • Recreational facilities that would become further removed from the waters of the Salton Sea would be relocated to an appropriate site adjacent to the Salton Sea and access will be extended to the new shoreline so as to provide quality public viewing opportunities of the Salton Sea and its shoreline. • Interpretive facilities and materials would be developed and made available to the public at recreation areas and along public roadways. Interpretive displays may include historic photographs of the Salton Sea landscape and information about water conservation measures, including their effects on Salton Sea water levels. Alternatively, implementation of Mitigation Strategy 2 would avoid aesthetic impacts associated with the decline in Salton Sea elevation.	Less than significant with mitigation.

Table ES-1. Summary of Impacts and Mitigations

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<i>Resource</i>	<i>Description of Impact</i>	<i>Mitigation¹ Measure</i>	<i>Residual Impact</i>
SALTON SEA (CONTINUED)			
Hazards and Hazardous Materials	The Proposed Project would accelerate the decline in the Sea's water surface elevation, but the amount of bottom sediment that would be exposed would be relatively small, resulting in only limited potential for public exposure to significant new hazardous conditions. The impact would be less than significant. The receding shoreline would likely reduce the amount of brackish marsh, which would reduce the area's mosquito population.	No mitigation measures are required.	None.
Public Services, Utilities and Transportation	Because impacts to this area would only involve change in water levels of the Salton Sea, impacts to public utilities, public services, and transportation systems would not occur.	No mitigation measures are required.	None.
Population, Housing, and Employment	Changes to water surface elevation and water quality of the Salton Sea would impact the fisheries and other recreational resources of the Sea, which may indirectly affect employment opportunities in the area, and possibly lead to a reduction in population. This potential loss of employment opportunities, while having social consequences, would not constitute a significant change to the environment.	No mitigation measures are required.	None.
<p>1 Potential mitigation measures have been identified for impacts that would result from the implementation of Project components that are receiving program-level analysis. Individual agencies that are responsible for implementing specific components of the QSA will be responsible for refining and adopting specific mitigation measures for these components in the project-level analyses being performed.</p>			

Table ES-2. Summary of Cumulative Impacts

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<i>Related Projects</i>	<i>Potential Impacts of the Related Projects</i>	<i>Significant Cumulative Impacts</i>
Implementation Agreement (IA)	Same as Proposed Project.	No significant cumulative impacts would occur.
Inadvertent Overrun and Payback Policy (IOP)	Minor changes in river and reservoir levels associated with overrun and payback periods. Impacts associated with conservation by IID for purposes of paying back diversion exceedances in accordance with the IOP would be consistent with those that are already addressed in Chapter 3 of this PEIR.	No significant cumulative impacts would occur.
Interim Surplus Guidelines	Minor reduction in Lake Mead reservoir levels.	No significant cumulative impacts would occur.
Rule for Offstream Storage	Possible changes to flows and reservoir elevations in the Colorado River between Lake Powell and the Southerly International Boundary. This could adversely impact biological resources.	The Proposed Project could significantly impact biological resources of the lower Colorado River due to reduction in groundwater and water surface elevation. Cumulative impacts are potentially significant. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.
Lower Colorado River Multi-Species Conservation Program (MSCP)	Long-term beneficial impacts to biological resources on the lower Colorado River. The construction of conservation/restoration actions could result in short-term impacts to biological resources, water quality, geology and soils, air quality, and noise. Impacts to cultural resources also could result from ground disturbance required to implement the conservation/restoration actions of the MSCP. Depending on the sites that are selected for restoration/conservation actions, the MSCP also could result in such a conversion of Important Farmland to non-agricultural use.	The construction of conservation/restoration actions associated with the MSCP and biological mitigation measures described in section 3.2 could result in short-term impacts to biological resources, water quality, geology and soils, air quality, and noise. These impacts could be cumulatively significant if these actions occurred at the same general time and location. These impacts would be mitigable through standard construction practices that would be developed once specific sites were selected. Such practices include, but are not limited to, the installation of temporary berms and sedimentation traps, such as silt fencing, straw bales, and sand bags, revegetating disturbed areas immediately after grading, and conveying surface run-off in a manner that minimizes the potential for erosion and sedimentation. Geotextile binding fabrics should be used if necessary to hold slope soils until vegetation is established. Impacts to cultural resources along the lower Colorado River also could result from ground disturbance required to implement the conservation/restoration actions of the MSCP and the Proposed Project's biological mitigation measures.

Table ES-2. Summary of Cumulative Impacts

<i>Related Projects</i>	<i>Potential Impacts of the Related Projects</i>	<i>Significant Cumulative Impacts</i>
Lower Colorado River Multi-Species Conservation Program (MSCP) (continued)		<p>Impacts to cultural resources from the Proposed Project also could occur in the IID and SDCWA service areas and at the Salton Sea. Impacts could be cumulatively significant. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impact to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.</p> <p>The Proposed Project could result in the conversion of Important Farmland to non-agricultural use, as described in section 3.5. This is considered a significant and potentially unavoidable impact. Depending on the sites that are selected for restoration/conservation actions, the MSCP also could result in such a conversion, as could the implementation of the Proposed Project's biological mitigation measures along the Colorado River. This would be a significant and potentially unavoidable impact to agricultural resources in Southern California.</p>
Lower Colorado River Desert Region Plan	Beneficial impacts to water quality in agricultural drains.	No significant cumulative impacts would occur.
Colorado River Salinity Control Program	Beneficial impacts to Colorado River water quality	No significant cumulative impacts would occur.
Colorado River Basin Watershed Management Initiative	Beneficial impacts to water quality of the Salton Sea, New River, Alamo River, Imperial Valley agricultural drains, and CVSC.	No significant cumulative impacts would occur.
Salton Sea Restoration Project	Potential short- and long-term significant impacts to several environmental resources depending upon the alternative restoration strategies selected.	Due to lack of definition of alternatives, cumulative impacts are speculative. Cumulative impacts are potentially significant but mitigable.
Total Maximum Daily Load (TMDL) Program	Beneficial impacts to water quality in the Salton Sea and its tributaries.	No significant cumulative impacts would occur.
Heber Wastewater Treatment System	Beneficial impacts to water quality of agricultural drains and the Alamo River.	No significant cumulative impacts would occur..
Dos Palmas Habitat Restoration/Enhancement	Beneficial impacts to biological resources.	No significant cumulative impacts would occur.

Table ES-2. Summary of Cumulative Impacts

<i>Related Projects</i>	<i>Potential Impacts of the Related Projects</i>	<i>Significant Cumulative Impacts</i>
Brawley, California Wetland Project	Beneficial impacts to water quality of the New River, Salton Sea, and Imperial Valley agricultural drains.	No significant cumulative impacts would occur.
North Baja Powerline Project	Potential significant impacts to biological and (marsh and riparian habitat).	Potentially significant cumulative biological impacts. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact. Significant, potentially unavoidable cumulative impacts to agricultural resources could occur if both projects resulted in the conversion of Important Farmland. Short-term cumulative impacts from construction are unlikely unless construction occurred in the same general location and at the same time. Potential unavoidable short-term air quality impacts if construction occurred at the same time as the Coachella Canal Lining Project.
Mexicali Wastewater System Improvements	<p>The Mexicali Wastewater System Improvements would result in a beneficial impact on the water quality of the New River and thus the water quality of inflows to the Salton Sea.</p> <p>The two power plants would collectively evaporate approximately 10,570 AFY. The net reduction in water flows to the Salton Sea would be less than 1 percent of the total amount of flow (U.S. DOE 2001). The power plants combined would result in a negligible increase in the salinity of the Salton Sea. Ultimately, the reduction of phosphates, organics, and heavy metals from Mexico that are currently discharged to the Salton Sea will have a positive impact on water and biological resources. The small increase in salinity level and reduction in water quantity would be negligible; hence the power plants would have no measurable impact.</p>	The Proposed Project would result in a less than significant impact to the water quality of the New River, while the wastewater treatment plant improvements would result in a beneficial impact on the water quality of the New River and thus the water quality of inflows to the Salton Sea. The power plants would result in negligible impacts to water quality. Cumulative impacts would not be significant.

Table ES-2. Summary of Cumulative Impacts

<i>Related Projects</i>	<i>Potential Impacts of the Related Projects</i>	<i>Significant Cumulative Impacts</i>
Coachella Valley Water Management Plan (CVWMP) (non-QSA part)	Short-term, construction-related impacts to biological resources, air quality, geology and soils, public services and utilities, transportation, hazardous materials, noise, and public safety. Potential increased agricultural return flows and decreased water quality to drains that empty into the Salton Sea from the Coachella Valley. Depending on the specific locations of facilities that would be constructed, impacts to biological, cultural, and geological resources also could occur.	Potential localized impacts to areas of disturbance that may be within the same general locations as those facilities associated with the Proposed Project. Impacts to biological, cultural, and geological resources, air quality, public services and utilities, transportation, hazardous materials, and noise would be cumulatively significant. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts, with the possible exception of air quality, to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.
Coachella Valley Multi-Species Habitat Conservation Plan (MSHCP)	Potential short-term localized impacts to biological resources. Long-term beneficial impacts to biological resources.	No significant cumulative impacts would occur.
Whitewater River Basin Flood Control Project	Beneficial impacts to biological resources.	No significant cumulative impacts would occur.
Flood Mitigation and Riverine Restoration Program	Beneficial impacts to flood control and biological resources.	No significant cumulative impacts would occur.
Peninsular Bighorn Sheep Recovery Plan	Beneficial impacts to biological resources.	No significant cumulative impacts would occur.
Mission Creek Subbasin Recharge Project	Beneficial impact from decrease in groundwater overdraft conditions within the Coachella Valley.	No significant cumulative impacts would occur.
Caltrans Route 86 Expressway Mitigation	Beneficial biological impact.	No significant cumulative impacts would occur.
Te' Ayawa Energy Center	Potentially significant impacts, including impacts to geologic hazards, water resources, biological resources, traffic and transportation, noise, air quality, hazardous materials, hazardous waste, and visual resources would be reduced to less than significant impacts through application of mitigation measures.	Potentially significant impacts could result from the construction of the energy center and Proposed Project facilities, such as recharge basins, pipelines, and pumping stations. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts, with the possible exception of air quality, to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.

Table ES-2. Summary of Cumulative Impacts

<i>Related Projects</i>	<i>Potential Impacts of the Related Projects</i>	<i>Significant Cumulative Impacts</i>
Coachella Valley/Salton Sea Non-Point Source Project	Beneficial impact to water quality of the Salton Sea. Short-term construction related impacts.	No significant cumulative impacts would occur.
Cabazon Resource Recovery Park	Short-term, localized construction impacts. Potential for contamination of surface and groundwater supplies due to hazardous spills.	Both the Proposed Project and the Cabazon Resources Recovery Park could result in significant impacts from construction. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts, with the possible exception of air quality, to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.
Cabazon Power Plant	Potential impact to water quality in the CVSC dependent on the salinity of the discharge from the plant.	Water quality impacts are speculative. Both the Proposed Project and the power plant project could result in significant impacts from construction. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts, with the possible exception of air quality, to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.
Hayfield Groundwater Storage Program	Short-term construction related impacts to biological resources, hazardous waste, soils, noise, and air quality.	No significant cumulative impacts would occur.
Cadiz Groundwater Storage and Dry-Year Supply Program	Potential impact to groundwater quality. Short-term, construction-related impacts to biological, air, hazardous materials, and paleontological resources.	No significant cumulative impacts would occur.

Table ES-2. Summary of Cumulative Impacts

<i>Related Projects</i>	<i>Potential Impacts of the Related Projects</i>	<i>Significant Cumulative Impacts</i>
Palo Verde Land Management, Crop Rotation, and Water Supply Program	Potentially minor loss of marsh and riparian habitat between Parker Dam and the Palo Verde Diversion Dam. Land fallowing could cause air quality impacts from fugitive dust emissions.	The Proposed Project and the Land Management, Crop Rotation, and Water Supply Program together would slightly lower the Colorado River median groundwater and surface elevation between Parker Dam and the Palo Verde Diversion Dam. This would not significantly affect water resources, but would result in a significant cumulative impact to biological resources. Mitigation measures associated with the Proposed Project would reduce the potentially significant cumulative impacts to a less-than-significant level. No additional mitigation for the Proposed Project other than that identified in this PEIR would be necessary to address the cumulative impact.