

SECTION 5.0

Other CEQA and NEPA Considerations

Other CEQA and NEPA Considerations

This section discusses other CEQA and NEPA considerations including cumulative impacts; growth-inducing impacts; applicable regulations, policies, and required permits; significant and unavoidable impacts; relationship between short-term uses of the environment and long-term productivity; and irreversible and irretrievable commitments of resources.

5.1 Cumulative Impacts

This section assesses the cumulative impacts of implementing the Proposed Project when combined with other projects that could result in impacts to the same environmental resources as the Proposed Project. Both CEQA and NEPA provide guidelines for assessing cumulative impacts.

The State CEQA Guidelines (Section 15355) provides the following definition of cumulative impacts:

The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

CEQA requires that EIRs discuss cumulative impacts if a project's incremental effect is "cumulatively considerable," which means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects (State CEQA Guidelines, Section 15065[c]).

The CEQ regulations implementing NEPA (40 CFR Section 1508.7) define a "cumulative impact" for purposes of NEPA as follows:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Section 5.1.1 describes the projects considered in this cumulative impact analysis. It also describes each project's environmental status and the anticipated impacts of each project that could contribute to a cumulative impact when added to incremental impacts of the Proposed Project. Section 5.1.2 aggregates the potential cumulative impacts of the Proposed Project in conjunction with all of the projects considered in this analysis by resource area.

5.1.1 Projects Included in the Cumulative Impact Analysis

For the purposes of this EIR/EIS, a significant cumulative impact would occur if incremental, cumulatively considerable impacts of the Proposed Project, including the HCP,

in conjunction with the related impacts of other past, present, and reasonably foreseeable similar projects, result (in the aggregate) in significant adverse (cumulative) effects.

Projects assessed for their potential to result in cumulative impacts were identified through a review of regional and local environmental documents. Both the type of project and the appropriate geographic scope (i.e., projects that would be located within the same general area as the Proposed Project's geographic subregions), and their incremental impacts, were considered.

The following sections provide a description of the related projects assessed for cumulative impacts when combined with the incremental impacts of the Proposed Project, the potential environmental impacts that relate to the Proposed Project, the status of the environmental review process for the related projects, and the potential cumulative impacts when the incremental contribution of the related projects is combined with the incremental impacts of the Proposed Project. Aggregate cumulative effects of all related projects are discussed in Section 5.1.2.

5.1.1.1 Agreements, Plans, and/or Projects with Potential Related or Cumulative Impacts

Quantification Settlement Agreement

As described in Sections 1 and 2 of this EIR/EIS, the QSA provides for the implementation of key components of the California Plan, and it comprises an important part of California's strategy to reduce its annual use of Colorado River water to 4.4 MAF in a normal year. In addition to the water transfers under the Proposed Project's second scenario (QSA Implementation), the QSA includes implementation of other water conservation projects, groundwater conjunctive use, water transfers, and exchanges to implement portions of the California Plan. Because of the integrated nature of the QSA components, IID, CVWD, MWD, and SDCWA have prepared a QSA PEIR specifically to review the effects of the QSA components as a whole, at a programmatic level. The assessment set forth in the QSA PEIR is intended to provide a cumulative assessment of the effects of implementation of the Proposed Project together with other QSA components.

The following key projects, which are included in the QSA but are not part of the Proposed Project, could potentially contribute to cumulative impacts:

- **Coachella Canal Lining Project:** This project involves the lining of the remaining 33.4 miles of the Coachella Canal, which currently loses approximately 32,350 AFY through seepage. It is estimated that implementation of the canal lining project would conserve approximately 26 KAFY. Under the terms of the QSA, the conserved water would be diverted into the CRA and portions transferred to MWD's service area (21.5 KAFY) and to the San Luis Rey Indian Water Rights Settlement parties (4.5 KAFY). Although this project is a component of the QSA, it has been separately assessed in the Coachella Canal Lining Project EIS/EIR (Reclamation and CVWD 2001).

This canal lining project will have certain effects that cumulatively increase impacts that are associated with the Proposed Project. The canal lining project will reduce flow in the LCR between Parker and Imperial Dams by the amount of water conserved by the lining activities, decrease groundwater inflows to the Salton Sea from canal seepage, and adversely affect biological resources by loss of riparian and wetland habitat in Salt Creek and adjacent to the canal, which are supported by canal leakage. The canal lining project

will have temporary impacts associated with construction within the right-of-way of the Coachella Canal.

- **AAC Lining Project:** This project involves lining the 23-mile reach of the existing, unlined canal. The project is expected to conserve approximately 67.7 KAFY currently lost through seepage. The conserved water would be diverted into the CRA and portions transferred to MWD's service area (56.2 KAFY) and to the San Luis Rey Indian Water Rights Settlement parties (11.5 KAFY). Although this project is a component of the QSA, it has been separately assessed in the All American Canal Lining Project EIS/EIR (Reclamation 1994).

This canal lining project will have certain effects that cumulatively increase impacts that are associated with the Proposed Project. The project will reduce flow in the LCR between Parker and Imperial Dams by the amount of water conserved by the lining activities and decrease groundwater inflows to the Salton Sea from canal seepage. It will affect biological resources by decreasing seepage into adjacent areas that support riparian and marsh vegetation; however, this vegetation does not provide habitat for state or federally listed species. The canal lining project will have temporary impacts associated with construction within the proposed right-of-way of the AAC. Temporary and permanent impacts to desert scrub and sand dune habitat would result from construction activities. Special-status species known to inhabit or likely to inhabit these desert habitats are flat-tailed horned lizard, Colorado Desert fringe-toed lizard, giant Spanish needles, Peirson's milkvetch, Wiggin's croton, sandfoot and Andrew's dune scarab beetle. The canal lining project also has the potential to result in the mortality of fish within the canal, as well as a decline in fish productivity. The All American Canal Lining Project EIR/EIS includes mitigation measures to avoid and/or compensate for impacts to riparian and marsh vegetation, fish in the canal, desert habitat, and special-status species associated with desert habitats.

- **MWD/CVWD SWP Water Transfer and Exchange:** This project involves an exchange between MWD and CVWD involving SWP entitlement and Colorado River water. CVWD would transfer 35 KAFY of its SWP entitlement to MWD. The delivery would be made to MWD at the existing Devil Canyon Afterbay located south of Victorville, California. In exchange, MWD would arrange with Reclamation for the delivery of 35 KAFY of Colorado River water to CVWD. It is expected that this water would be diverted at Imperial Dam into the AAC and delivered via the Coachella Canal. However, at MWD's option, the delivery may also be made from the CRA to CVWD.

If the 35 KAFY of Colorado River water to be transferred to CVWD is diverted at Imperial Dam, the exchange would result in an increase in flow in the LCR between Parker and Imperial Dams. This would not result in a cumulative adverse effect on LCR flows. If diverted into the CRA, the current point of delivery of the water to MWD would be maintained and there would be no adverse effect on LCR flows or elevation. The exchange project would potentially increase Colorado River water available to CVWD and, depending upon its use, could potentially increase drainage inflows to the Salton Sea. Such an increase would be a beneficial effect on the Salton Sea.

These projects and their associated impacts are further described in the QSA PEIR (CVWD et al. 2002).

- **Environmental Review Schedule.** The Draft QSA PEIR was issued for public review in January 2002. A revised and updated Draft EIS/EIR for the Coachella Canal Lining Project was circulated for public review by Reclamation and CVWD in September 2000; a Final EIS/EIR was released in April 2001; the Final EIS/EIR was certified by CVWD in May 2001; and a ROD was issued by the Regional Director of Reclamation's Lower Colorado Regional Office on March 27, 2002. A Final EIS/EIR for the AAC Lining Project was released in March 1994.
- **Potential Cumulative Impacts.**
 - **Hydrology and Water Quality – Salton Sea.** Seepage from the Coachella Canal historically has produced shallow groundwater under the Coachella Canal and under the land west of the canal. This groundwater drains toward the Salton Sea. The Coachella Canal Lining Project would reduce groundwater levels near the lined canal, thereby reducing the groundwater flow to the Salton Sea.

Most of the groundwater resulting from seepage from the AAC drains toward Mexico, but a portion (approximately 100 KAF) drains to the Salton Sea. The two canal lining projects will reduce inflows from groundwater to the Salton Sea, but the aggregate impact of these two projects is not considered significant and is not anticipated to considerably increase the effects of the Proposed Project. Therefore, no significant cumulative adverse impact due to reduced inflows to the Salton Sea is anticipated.

As discussed in this EIR/EIS, the reduction in inflows to the Salton Sea resulting from the Proposed Project (not including the HCP) will reduce the elevation and affect the water quality of the Salton Sea, resulting in a significant impact on biological resources in and around the Salton Sea (discussed below) and on the sport fishery, as well as other impacts to air quality, recreation, and aesthetics as a result of exposed shoreline. Implementation of the HCP, and other mitigation measures set forth in this EIR/EIS, will reduce these Proposed Project-related impacts to a level that is less than cumulatively considerable; therefore, no significant cumulative adverse impact to these resources would occur.

Hydrology and Water Quality – LCR. Implementation of the QSA, including the change in the point of diversion required for implementation of the Proposed Project, would result in an aggregate reduction in flow in the LCR between Parker and Imperial Dams of approximately 388 KAFY. According to the IA EIS, changing the point of diversion from Imperial to Parker Dam for up to 400 KAFY could lower the annual median River stage relative to Baseline by as much as 4.4 inches (Reclamation 2002). Overall, the cumulative hydrology impacts on the LCR are not considered to be significant because the LCR water levels would still be within current range of daily fluctuation, even with implementation of the Proposed Project (Reclamation 2002).

Hydrology and Water Quality – IID Water Service Area and AAC. The impacts of the Proposed Project on drains and rivers in the IID water service area are assessed in this EIR/EIS. As a result of measures provided in the HCP and this EIR/EIS, these impacts are reduced to a level that is less than cumulatively considerable, thus avoiding a significant cumulative adverse impact, except in the case of selenium. The impact of selenium concentrations in the IID drains and rivers is determined to be significant and unavoidable. It is not anticipated that the QSA will contribute to this impact (other than

through the Proposed Project); however, there will be a significant, unavoidable adverse impact on water quality in the IID drains and rivers as a result of implementation of the Proposed Project and the QSA.

The aggregate reduction in groundwater in the IID water service area resulting from the QSA projects and the Proposed Project will not significantly affect groundwater resources in the IID water service area because, as noted in this EIR/EIS, groundwater is generally of poor quality and is not utilized for beneficial uses.

Biological Resources – IID Water Service Area and AAC. Lining of the AAC would decrease seepage into adjacent areas that support riparian and marsh habitats and are important for wildlife, plant, and fish species. Mitigation for these impacts will be provided in connection with that canal lining project. The water conservation and transfer component of the Proposed Project would not impact biological resources along the AAC. The HCP-IID component of the Proposed Project includes measures to avoid and minimize impacts to special-status species and their habitats along the AAC that could occur as a result of IID's O&M activities. Because the HCP would avoid or mitigate impacts to biological resources to a level that is less than cumulatively considerable, there would be no significant cumulative impact to biological resources along the AAC.

Biological Resources – Coachella Canal. Lining of the Coachella Canal would decrease seepage into Salt Creek, which supports riparian and marsh vegetation and provides habitat for Yuma clapper rails and California black rails. Desert pupfish that inhabit Salt Creek could be impacted by reduced seepage flow. Mitigation for these impacts is specified in the Coachella Canal Lining EIS/EIR (Reclamation and IID 2001). Certain aspects of the Proposed Project would also affect Yuma clapper rails, California black rails, and Desert pupfish or their habitats; however, implementation of the HCP-IID component would result in a net increase in habitat for these species in Coachella Canal area. Because impacts to these species would be avoided for the Coachella Canal lining project and because the Proposed Project would result in a net benefit, there would be no significant cumulative adverse impacts to biological resources.

Biological Resources – Salton Sea. As stated above, reduced seepage from the lining of the AAC and the Coachella Canal could result in slightly decreased inflows to the Salton Sea, resulting in the reduction of suitable habitat for some wildlife species that inhabit the Sea. Overall, however, these impacts are not expected to be significant because only a very minimal amount of groundwater currently flows toward and drains into the Sea. The water conservation and transfer component of the Proposed Project would reduce inflows to the Salton Sea by substantially more than the canal lining projects. The combined effect of the canal lining projects and the Proposed Project on the rate of salinization of the Salton Sea and resultant effects on biological resources would not be appreciably different from the effects of the water conservation and transfer component of the Proposed Project by itself. Proposed Project-related changes in inflow to the Salton Sea would be avoided with implementation of the HCP. Because the HCP would avoid the impacts to biological resources attributable to the Proposed Project to a limit which is less than cumulatively considerable, no adverse cumulative impact to the biological resources of the Salton Sea would occur.

Biological Resources – LCR. Reclamation consulted with USFWS under Section 7 of the ESA regarding the impacts to biological resources along the LCR as a result of the change in the point of diversion for up to 400 AFY of Colorado River water. This increment covers the change in the point of diversion required for the QSA and the Proposed Project, in the aggregate. As a result of this consultation, USFWS issued a BO (USFWS 2001), which identifies the biological conservation measures that Reclamation will implement to offset these impacts. The biological conservation measures are assessed in the Draft IA EIS (Reclamation 2002). This EIR/EIS includes mitigation for impacts to LCR biological resources under CEQA and CESA as a result of the change in the point of diversion required for the Proposed Project, which accounts for most of the 400 KAFY. Because the aggregate impacts to LCR biological resources were addressed in the USFWS' BO and are offset by the biological conservation measures, and because the aggregate CESA and CEQA impacts are substantially mitigated by measures required for the Proposed Project, there would be no cumulative adverse impacts to biological resources along the LCR. It is noted that long-term mitigation for aggregate impacts to biological resources along the LCR as a result of anticipated projects, which may affect up to 1.5 MAFY, is expected to be addressed in the LCR MSCP, discussed below.

Recreation Resources – Salton Sea. As stated above, reduced seepage from the lining of the AAC and the Coachella Canal could result in slightly decreased inflows to the Salton Sea, resulting in the reduction of suitable habitat for some wildlife species that inhabit the Sea. Overall, however, these impacts are not expected to be significant because only a very minimal amount of groundwater currently flows toward and drains into the Sea. The water conservation and transfer component of the Proposed Project would reduce inflows to the Salton Sea by substantially more than the canal lining projects. The combined effect of the canal lining projects and the Proposed Project on the rate of salinization of the Salton Sea and resultant effects on recreation resources would not be appreciably different from the effects of the water conservation and transfer component of the Proposed Project by itself. Proposed Project-related changes in inflow to the Salton Sea would be avoided with implementation of the Salton Sea Habitat Conservation Strategy component. Because the Salton Sea Habitat Conservation Strategy component would avoid the impacts to recreation resources attributable to the Proposed Project to a limit which is less than cumulatively considerable; therefore, no adverse cumulative impact to the recreation resources of the Salton Sea would occur.

Public Services and Utilities; Socioeconomics – LCR. Reducing the flow over Parker Dam could impact power generation capacities at Headgate Rock Dam. The IA EIS describes the average percentage of lost energy resulting from the IA (changing the point of delivery of approximately 388 KAFY) as 5.37 percent. Diversion of up to 300 KAFY because of the Proposed Project would result in proportionately less lost energy and therefore less impact on power generation losses. Currently, Headgate Rock Dam generates more energy than is needed by CRIT. Implementation of the IA should not impact Headgate's ability to meet CRIT's current energy demands. The loss in power generation capacity would be less than cumulatively considerable.

However, implementation of the IA could impact BIA's ability to meet CRIT's planned energy growth and BIA's efforts to fulfill CRIT's additional California reservation energy demand. A reduction in Headgate energy could impact BIA's ability to meet new

tribal energy demands. Implementation of the IA could also have a potential impact on Headgate rates if the rates are based on an estimated 100 percent of energy generated at Headgate. At that time, BIA would have to purchase power from another source to meet the additional demand. Depending on the open-market rate for energy at the time, there could be an economic impact to CRIT. The future economic impacts, however, which would depend on future energy costs, are too speculative to describe with great clarity in this EIR/EIS.

Implementation Agreement and Inadvertent Overrun and Payback Policy

Implementation Agreement. Execution of the IA by the Secretary is the federal action approving modifications to Colorado River water deliveries by Reclamation that are necessary to allow implementation of the QSA, including components of the Proposed Project. The IA is a condition precedent to implementation of the QSA. The IA would result in a change in the amount of water the Secretary would deliver to the Whitsett Pumping Plant, MWD's diversion point at Lake Havasu (above Parker Dam), and Imperial Dam, which is the diversion point for IID and CVWD. In aggregate (i.e., including the QSA and the Proposed Project), deliveries to Imperial Dam would be reduced by between 183 and 388 KAFY, and this water would instead be delivered to the MWD facilities in Lake Havasu. Therefore, a flow reduction between 183 and 388 KAFY would occur in the LCR from Parker to Imperial Dams with implementation of the Proposed Project and the other water transfer projects authorized by the IA (Reclamation 2002). A substantial portion of that amount, up to 300 KAFY, is attributable to the water transfer component of the Proposed Project. The IA is described in detail in the IA EIS, which is incorporated into this EIR/EIS by reference.

Inadvertent Overrun and Payback Policy. The IOP establishes requirements for payback of inadvertent overuse of Colorado River water by Lower Division States. The IOP is triggered by inadvertent water use in excess of a user's annual entitlement. The combination of inadvertent overruns and payback pursuant to the IOP would result in minor year-to-year changes to water levels in Lake Mead and to water surface elevations on the LCR during both overrun years and payback years. The increased releases from Lake Mead and increased flow along the LCR resulting from excess use would lead to less water released from Lake Mead and decreased flows along the LCR resulting from payback requirements in succeeding years. Reclamation has determined that these changes do not create significant biological or hydrological impacts because, on average, it is anticipated that any yearly changes would be within the historic hydrologic parameters of the river (Reclamation 2002). The IOP and Reclamation's determinations are described in detail in the IA EIS, which is incorporated into this EIR/EIS by reference.

- **Environmental Review Schedule.** A Notice of Intent to Prepare an EIS and initiation of Public Scoping was published in the Federal Register on January 18, 2001. The comment period was extended by a second notice published on March 9, 2001. Also, on January 18, 2001, Reclamation published in the Federal Register an NOI to prepare the IA EIS. The IA EIS, which evaluates the environmental impacts of the IA, the IOP, and the LCR biological conservation measures identified in USFWS' BO (see Section 5.1.1.4) was issued by Reclamation on January 11, 2002. The Final IA EIS is expected to be filed with EPA concurrent with the filing of this Final EIR/EIS.

- **Potential Cumulative Impacts.** Since the IA simply provides federal authorization and implementation of certain QSA components, the cumulative effects of the IA and the Proposed Project are addressed in the discussion of the cumulative effects of the QSA and the Proposed Project in Section 5.1.1.1 above. No new significant cumulative effects will occur when the IA is evaluated in lieu of the QSA.

Implementation of the IOP and the Proposed Project could result in an aggregate reduction in flow along the LCR between Parker and Imperial Dams which, in some years, would be greater than the reduction resulting from the Proposed Project by itself. In other years, the aggregate effect could be an increase in LCR flow. Based on the analysis in the IA EIS, these changes are minor and no substantial, long-term, aggregate change is anticipated (Reclamation 2002). Therefore, no cumulative adverse impact to hydrology resources in the LCR would occur.

The impacts to biological resources along the LCR as a result of the IA, IOP, and the Proposed Project are expected to be substantially the same as the impacts of the QSA and IA, as described above and in the IA EIS. The IA EIS identifies changes to the Salton Sea's salinity and elevation levels that would result from implementation of IID's Water Conservation and Transfer Project. These are effects of the Proposed Project, which are assessed in this EIR/EIS.

Interim Surplus Guidelines

Reclamation has adopted specific Interim Surplus Guidelines that will be used annually to determine whether conditions exist under which the Secretary might declare the availability of "surplus" water in Lake Mead for use within Arizona, California, and Nevada. The Interim Surplus Guidelines remain in effect through calendar year 2015, subject to 5-year reviews, and are applied each year as part of Reclamation's Annual Operating Plan (Reclamation 2000a).

The Interim Surplus Guidelines are critical to the overall implementation of the QSA because the QSA defines the process by which surplus water could be used to partially offset the effect of reducing of California's use of Colorado River water to its 4.4 MAF normal-year entitlement. Once the Interim Surplus Guidelines period is complete, it is anticipated that the QSA and other programs would be able to meet California's 4.4 MAF normal-year limit without the benefit of special surplus guidelines (CVWD et al. 2002).

A consultation between Reclamation and USFWS resulted in a BO (USFWS 2001), which identifies specific mitigation measures for federally listed species (razorback sucker and other native fish) and their habitats along the LCR which offset the aggregate impacts of the Interim Surplus Guidelines and the IA (including impacts on the LCR as required to implement the QSA and the Proposed Project). The LCR biological conservation measures are described and assessed in the IA EIS, which is incorporated into this EIR/EIS by reference.

- **Environmental Review Schedule.** The Interim Surplus Guidelines EIS was released for public review in July 2000. The Final EIS was released by Reclamation in December 2000. A ROD was issued in January 2001. The Draft IA EIS, released by Reclamation in January 2002, assessed the impacts of the LCR biological conservation measures. As

noted earlier, the Final IA EIS is expected to be filed with EPA concurrent with the filing of this Final EIR/EIS.

- **Potential Cumulative Impacts.** Reclamation determined that the small changes in the probabilities of occurrence of flows in the LCR as a result of the Interim Surplus Guidelines are within Reclamation's current operational regime and authorities under applicable law (Reclamation 2002). Reclamation determined that implementation of the Interim Surplus Guidelines is expected to result in minor changes in reservoir levels in Lake Mead but would not result in changes in the LCR flows between Parker and Imperial Dams or changes in points of diversion. The Interim Surplus Guidelines apply to the use of surplus water only. Based upon the analyses set forth in the IA EIS, there are no significant cumulative impacts to hydrology associated with implementation of the Interim Surplus Guidelines when combined with the Proposed Project.

The LCR biological conservation measures offset the aggregate impacts to species and their habitats which could result from the Interim Surplus Guidelines and the IA (which facilitates those QSA components affecting LCR diversions and flows, including the Proposed Project). Therefore, any cumulative impact has been reduced to a less than significant level.

Palo Verde Land Management, Crop Rotation, and Water Supply Program

MWD and PVID are developing a land management, crop rotation, and water supply program in the Palo Verde Valley. The program's objective is to develop a flexible and reliable water supply for MWD of approximately 100 KAFY for 35 years and to assist in stabilizing the farm economy within the Palo Verde Valley through sign-up payments and annual payments for participating farmers and through implementation of specific community improvement programs. Participation in the program would be voluntary. Participating farmers would, at MWD's request and with specific notice periods, not irrigate a portion of their farmland. The same land would not be irrigated for a minimum of a 1-year term and a maximum of a 3-year term at the farmer's option. A base area of 6,000 acres would not be irrigated each year of the 35 years. MWD would have the option to increase the non-irrigated area from 6,000 acres up to a maximum of 26,500 acres per year. Overall, a maximum of 24,000 acres per year in any 25-year period or 26,500 acres per year in any 10-year period during the 35-year program would be dedicated to the program. MWD would provide financial compensation to the participating farmers. Not irrigating a portion of the Palo Verde Valley's farmland would result in less Colorado River water being used by PVID. The amount of water conserved by the program would be determined on an annual basis (CVWD et al. 2002).

It is anticipated that there would be a reduction in flow of the LCR of approximately 111 KAFY between Parker Dam and the Palo Verde Diversion Dam. This could result in loss of marsh and riparian habitat along this portion of the LCR. This could impact sensitive fish and wildlife species including state- and federally listed species such as the Yuma clapper rail, black rail, Southwestern willow flycatcher, yellow-billed cuckoo, and razorback sucker.

It is also anticipated that there would be a reduction in agricultural productivity although no permanent conversion of existing farmland is anticipated.

- **Environmental Review Schedule.** An NOP for an EIR assessing the impacts of this program was published on October 29, 2001. The EIR was released for public review in May 2002.
- **Potential Cumulative Impacts.** The Proposed Project combined with this project could result in a potential cumulative impact by lowering LCR water levels by nearly 411 KAFY, in the aggregate (300 KAFY from the Proposed Project and 111 KAFY from the Palo Verde program), between Parker Dam and the Palo Verde Diversion Dam. According to the Draft IA EIS and the Draft QSA PEIR, the overall impacts to the LCR's hydrology and water quality are considered adverse but not cumulatively significant since the changes in the River levels would be small when compared to the total volume of water transported annually by the Colorado River.

The biological impacts of the Proposed Project will be offset by implementation of the biological conservation measures outlined in USFWS' BO, and in this EIR/EIS. This mitigation would reduce the Proposed Project's contribution to any potential cumulative impact to biological resources to a level which is less than cumulatively considerable, and thus avoid any significant cumulative adverse impact to biological resources.

As described in this EIR/EIS, the Proposed Project will have a significant adverse impact on agricultural resources if fallowing, or other mitigation measures, result in the conversion of agricultural land to a non-agricultural use. Based upon the current description of the MWD/PVID project, no adverse impact to agricultural resources is anticipated as a result of the conversion of farmland to non-agricultural use. Therefore, no significant cumulative adverse impact to agricultural resources would occur.

In addition, as stated under "Public Services and Utilities; Socioeconomics - LCR" under the "Quantification Settlement Agreement" in this section, reducing the flow over Parker Dam could impact power generation capacities at Headgate Rock Dam. The loss in power generation capacity would be less than cumulatively considerable. The economic impacts to CRIT are too speculative to describe with great clarity in this EIR/EIS.

Coachella Valley Water Management Plan

CVWD prepared the Coachella Valley Water Management Plan (CVWD 2000a) to provide an overall program for managing its surface and groundwater resources in the future. The objectives of this Water Management Plan are to:

- Eliminate groundwater overdraft and its associated adverse impacts, including groundwater storage reduction, declining groundwater levels, land subsidence, and water quality degradation.
- Maximize conjunctive use opportunities.
- Minimize adverse economic impacts to Coachella Valley water users.
- Minimize environmental impacts.

The overall Water Management Plan involves a number of actions to reduce the current overdraft of the groundwater in the Coachella Valley through increased use of Colorado

River water (thus reducing demand for groundwater pumping) and various recycling and conservation measures to reuse or decrease the consumption of water.

A substantial portion of the additional Colorado River water to be used pursuant to the Water Management Plan (up to 100 KAFY) is the conserved water to be transferred by IID to CVWD under the Proposed Project's second implementation scenario (QSA Implementation). The impacts of the Proposed Project are evaluated in this EIR/EIS; however, the impacts of CVWD's receipt of water transferred by IID and use of this water within the CVWD service area are addressed only at a programmatic level in this EIR/EIS. It is anticipated that the transferred water will be used to recharge groundwater within CVWD's Improvement District No. 1 and that the impacts of such use, in combination with other components of the Water Management Plan, will be assessed in the Draft CVWD Water Management PEIR, which is currently being prepared by CVWD.

The QSA provides for the delivery of an additional 55 KAFY of Colorado River water to CVWD from other sources (20 KAFY from conserved water generated under the 1988 IID/MWD Agreement and 35 KAFY to be obtained from MWD through an exchange of SWP water entitlement). The impacts of this additional 55 KAFY are evaluated at a programmatic level in the Draft QSA PEIR and will be further assessed in the Draft CVWD Water Management PEIR.

Other elements of the Water Management Plan are not dependent upon implementation of the QSA, nor are they part of the Proposed Project; they are addressed in this cumulative impact assessment and will also be addressed in the Draft Program EIR for the Water Management Plan. It is estimated that approximately 63 KAFY of water would be gained through non-QSA related activities provided for in the Water Management Plan, including recycled water, desalted agricultural drain water, municipal and industrial conservation, golf course conservation, and increased sub-surface flows. Implementation of these programs would involve construction of various facilities for treatment of water and development of additional policies to implement increased conservation. Implementation of the Water Management Plan may also result in additional water from other transfers not related to the QSA, including a potential transfer of up to 100 KAFY of SWP water.

The potential environmental impacts of the Water Management Plan have not been fully assessed at this time, but the following potential impacts have been identified: short-term construction impacts, potentially including impacts to biological resources, air quality, transportation, and noise; increased agricultural return flows and decreased water quality to drains that empty into the Salton Sea from the Coachella Valley; and impacts to biological and cultural resources.

- **Environmental Review Schedule.** An NOP was originally filed with the State Clearinghouse by CVWD in November 1995. A revised NOP was issued in March 2000 to incorporate the changes to the project brought about by the Colorado River allocation negotiations. The Draft CVWD Water Management PEIR was issued in June 2002.

- **Potential Cumulative Impacts**

Hydrology and Water Quality – CVWD Service Area and Salton Sea. It is difficult to distinguish the impacts of CVWD's receipt and use of up to 100 KAFY under the Proposed Project from the impacts of other components of the Coachella Valley Water

Management Plan. In addition, final environmental documentation for the Water Management Plan has not yet been released to the public. Overall, implementation of the Water Management Plan, however, is anticipated to increase agricultural return flows to the drains within the CVWD service area that empty into the Salton Sea. As the groundwater level in the Coachella Valley increases, flows in the drains and CVSC would increase, partially offsetting decreased flows to the Salton Sea as a result of the Proposed Project. Thus, no cumulative adverse impact resulting from reduced inflows to the Salton Sea is anticipated.

The salinity of Coachella Valley drain flows is predicted to increase with implementation of the Water Management Plan, which would increase the salt load delivered to the Salton Sea. The Proposed Project will also accelerate the rate of salinity increases in the Salton Sea. However, as described in this EIR/EIS, there is no water quality standard for salinity in the Salton Sea, although increasing salinity is expected to affect fish populations that support piscivorous birds, as discussed below in connection with biological resources. Therefore, there will be no significant cumulative impact to water quality due to salinity increases at the Salton Sea.

Increased use of Colorado River water for agriculture in the Coachella Valley may increase the selenium concentration in the drains and the CVSC. However, the projected flow-weighted average concentration of selenium in the drains and the CVSC is currently below the established water quality standard, and no significant impact as a result of exceedance of this standard is anticipated as a result of the Water Management Plan. It is also not anticipated that the aggregate effects of the Proposed Project and the Water Management Plan will result in a significant cumulative adverse water quality impact to the Salton Sea due to selenium.

Other components of the Water Management Plan may result in additional use of the groundwater resources or drain water in the CVWD service area. This use would be small when compared to the overall benefit of the Proposed Project to the groundwater aquifer. There is a potential however, that the water quality within shallow groundwater aquifers (not those aquifers primarily used within the CVWD service area for water supply) and within the drains may deteriorate both from the use of the saltier Colorado River water and the movement of the higher saline groundwater into the canal system due to higher groundwater levels. This impact is considered a potentially adverse cumulative impact and is described in the Draft CVWD Water Management PEIR (released in June 2002, subsequent to IID's certification of the June 2002 Final EIR/EIS).

Biological Resources – Salton Sea. As noted above, both the Proposed Project and the Water Management Plan contribute to increased salinity in the Salton Sea. The salinity of the Salton Sea will increase under Baseline conditions without the Proposed Project or the Water Management Plan; this Baseline trend will have a significant impact on biological resources at the Salton Sea, as discussed in this EIR/EIS. Existing conditions, agricultural drainage practices, the Proposed Project and the Water Management Plan contribute to a significant cumulative impact to fish populations supporting piscivorous birds. Proposed Project-related changes in inflows to the Salton Sea would be avoided with implementation of the HCP. Since the HCP would avoid Proposed Project-related impacts, the contribution of the Proposed Project will not be cumulatively considerable,

and, therefore, no significant cumulative adverse impact involving the Proposed Project would occur.

The Proposed Project-related impacts to biological resources resulting from selenium discharge into the Salton Sea will be mitigated through the HCP to a level which is less than cumulatively considerable; therefore, no significant adverse cumulative impact to biological resources due to selenium will occur.

The water conservation and transfer component of the Proposed Project is anticipated to adversely affect Desert pupfish in drains in the IID water service area. The increased flow in drains within the CVWD service area, which is anticipated under the Water Management Plan, has not currently been identified as an adverse impact to Desert pupfish in those drains. If such an impact is subsequently identified as a result of project-specific analysis of the Water Management Plan, it could result in a cumulative adverse impact to Desert pupfish in the Salton Sea area. However, the HCP is designed to mitigate the impacts of the Proposed Project to Desert pupfish, which would reduce those impacts to a level which is less than cumulatively considerable; therefore, no significant cumulative impact to Desert pupfish would result.

Recreation Resources – Salton Sea. As stated above, the Water Management Plan could result in increased salinity of inflows to the Salton Sea. The combined effect of the Water Management Plan and the Proposed Project on the rate of salinization of the Salton Sea and resultant effects on recreation resources would not be appreciably different from the effects of the water conservation and transfer component of the Proposed Project by itself. Proposed Project-related changes in inflow to the Salton Sea would be avoided with implementation of the HCP. Because the HCP would avoid the impacts to recreation resources attributable to the Proposed Project to a limit that is less than cumulatively considerable, no adverse cumulative impact to the recreation resources of the Salton Sea would occur.

Short-term Construction Impacts. There is a potential cumulative impact as a result of localized construction-related impacts (air quality, traffic, noise, and biological and cultural impacts) in connection with the construction of facilities related to the Proposed Project, facilities related to CVWD's use of water transferred under the Proposed Project, and facilities implementing other components of the Coachella Valley Water Management Plan. Mitigation measures required under this EIR/EIS for Proposed Project-related construction impacts will reduce those impacts to a level which is less than cumulatively considerable; and, therefore, no significant cumulative adverse impact due to construction will occur.

Cabazon Power Plant

Southern Energy, Inc. (SEI) is proposing to build a 500-MW, gas-fired generation facility on the Cabazon Indian Reservation in the Coachella Valley. SEI wants to purchase approximately 5 KAFY of Coachella Canal water for use at the facility, primarily for cooling. The plant proposes to discharge spent cooling water to the Whitewater River/CVSC (CVWD 2000b).

- **Environmental Review Schedule.** SEI is currently in discussions with the RWQCB to determine the feasibility and requirements for this plan. The date of anticipated first operation is unknown (CVWD 2000b).
- **Potential Cumulative Impacts.** Because of the lack of environmental documentation on this project, cumulative effects are speculative. The quality of the discharged cooling water's salinity depends on the cooling process used, whether it is pass-through or recycled multiple times before blowdown. If the salinity substantially exceeds that in the CVSC, the effect could be cumulatively considerable in conjunction with the Proposed Project's second scenario (QSA Implementation). If it were substantially lower, then the effect would be beneficial in diluting the salts (CVWD 2000b).

Cumulative impacts could also result from the construction of the Cabazon Power Plant and the groundwater recharge facilities under the Proposed Project's second scenario. However, construction-related impacts would not result in long-term alteration of the environment, and it is anticipated that the Proposed Project's contribution to the cumulative impact would be avoided and/or mitigated to a less than cumulatively considerable level through the use of standard construction measures and BMPs that will be identified in the Coachella Valley Water Management Plan PEIR (release pending); therefore, no significant cumulative impact as a result of construction would occur.

Salton Sea Restoration Project

This project is described in Section 1.6.

- **Environmental Review Schedule.** A revised alternatives document and modeling and impact analyses are being prepared. The document is currently scheduled to be available in November 2002.
- **Potential Cumulative Impacts.** It is not known at this time what the project alternatives or modeling results will be; therefore, any conclusions regarding potential cumulative impacts would be speculative. The stated purpose of the Salton Sea Restoration Project is to stabilize the salinity and elevation levels for all or a portion of the Salton Sea. This could ameliorate the future conditions anticipated in the Baseline description for the Salton Sea included in this EIR/EIS and could reduce Proposed Project-related effects on the salinity, elevation and biological resources of the Sea.

Certain potential restoration measures could reduce inflows to the Salton Sea or its elevation or adversely impact water quality or air quality. If such measures are proposed as part of the Salton Sea Restoration Project, they would contribute to impacts to water quality, hydrological resources, air quality and other impacts resulting from reduced Salton Sea elevation, which have been identified as Proposed Project-related impacts. However, since the restoration measures have not been specifically identified at this time, and since Proposed Project-related impacts will be reduced to a level which is less than cumulatively considerable, no significant cumulative adverse impacts to these resources have been identified.

Certain potential restoration measures could convert farmland to non-agricultural use. If such measures are proposed, as part of the Salton Sea Restoration Project, they would exacerbate the significant, unavoidable impact to agricultural resources which would

result from the Proposed Project if following, HCP measures or mitigation measures under this EIR/EIS convert farmland to non-agricultural use, resulting in a significant, unavoidable cumulative impact to agricultural resources. Since the restoration measures have not been specifically identified at this time, no such significant cumulative adverse impact can be determined to occur.

There may be short-term construction-related impacts associated with the restoration measures, such as short-term impacts to air quality, noise, traffic, and biological or cultural resources. Mitigation for construction-related impacts of the Proposed Project is included in this EIR/EIS and will reduce those impacts to a level which is less than cumulatively considerable; therefore, no significant cumulative adverse impact due to construction will occur.

SDCWA Capital Improvement Plan (CIP) Projects

The SDCWA Capital Improvement Plan (CIP) (SDCWA 2000b) is designed to provide facilities needed for a safe, reliable, and operationally flexible water storage, treatment, and delivery system (SDCWA 2000b). SDCWA initiated the CIP in 1986 to meet the needs of its service area through 2010 and, for some projects, through 2030. The approved CIP for Fiscal Year 1999/2000 includes 79 individual projects and has a total planned budget of \$99.4 billion. SDCWA's four major goals for the CIP are to:

- Increase pipeline capacity to meet present and future demands, particularly during times of peak usage.
- Eliminate bottlenecks in the present pipeline system.
- Increase reliability where water delivery is dependent on a single pipeline or source.
- Increase operational flexibility to facilitate pipeline maintenance (SDCWA 2000b).

CIP projects are intended to respond to projected demands for water supply facilities. They generally involve the improvement of existing facilities or the construction of new facilities in the following categories: (1) pipeline projects; (2) system-wide improvements; (3) emergency storage projects; (4) water supply projects; and (5) flow control and pumping facilities (SDCWA 2000b).

Pipeline projects included in the CIP are designed to meet the goals of increasing the capacity, operational flexibility, and reliability of the aqueduct system. Many of the major pipeline projects in the CIP would provide an additional pipeline along the Second Aqueduct corridor through the entire SDCWA service area, from Lake Skinner to Lower Otay Reservoir (SDCWA 2000b). The additional pipeline will provide expanded capacity to meet projected increasing water demands and relieve capacity limitations within portions of the aqueduct system. It would also provide the ability to maintain both treated and untreated water deliveries in most of the area during extended pipeline outages for maintenance or emergencies where one pipeline may be out of operation. The construction of a second pipeline in the south portion of the county has been completed. It allows the delivery of both treated and untreated water to southern member agencies.

The Ramona Pipeline and the North County Distribution Pipeline have extended the Authority's aqueduct system to provide additional service to member agencies. The Valley

Center Pipeline would increase the flexibility of the treated water system by providing a means of transferring treated water between the First and Second Aqueducts for operational needs and emergencies (SDCWA 2000b).

Other pipeline projects extend the service life of existing pipeline facilities by rehabilitation, replacement, or protection. These projects include the Aqueduct Protection Program, the Prestressed Concrete Cylinder Pipe Relining/Replacement, and the Pipeline Relocations at Bradley Park.

System-wide improvements enhance the entire aqueduct system. They provide better operational control, improved accounting, and budget control, and increased service life for existing facilities (SDCWA 2000b).

The Emergency Storage Project is designed to provide adequate storage to meet emergency needs. In April 1998, the Board approved agreements with Olivenhain Municipal Water District and the City of San Diego for design, construction, and operation of the initial components of the project. The SDCWA Board formally adopted the project in June 1998. Design of the initial components the Olivenhain Dam, Pipeline, and Pump Station began in Fiscal Year 1998/1999 (SDCWA 2000b).

Projects are planned to increase the water supply to the entire SDCWA service area or to specific regions of the county. These projects include efforts to monitor treated and untreated water demands to ensure that adequate treatment plant capacity and conveyance facility capacity are available to meet the needs of the SDCWA's member agencies (SDCWA 2000b).

Flow control and pumping facilities are designed to deliver water to the member agencies from the aqueduct system. Additional flow control facilities are requested by the member agencies and their full cost is reimbursable to SDCWA (SDCWA 2000b).

- **Environmental Review Schedule.** Implementation of the CIP began in 1998. For various reasons, the design and construction of the CIP projects have largely been delayed, and approximately 28 percent of the appropriated budget for Fiscal Year 1999/2000 had been spent by the end of the Third Quarter (SDCWA 2000b).
- **Potential Cumulative Impacts.** The potential impacts of SDCWA's CIP projects include temporary construction impacts, such as air quality, traffic and transportation, and noise. No construction-related effects of the Proposed Project will occur within the SDCWA service area, and, therefore, no cumulative adverse effect would occur.

Implementation of the CIP projects would result in increased water supply capacity and reliability for SDCWA's service area to meet projected water supply demands.

Implementation of the CIP projects in conjunction with the Proposed Project is expected to result in increased reliability of water for the SDCWA service area. This reliability would not change the assumptions on which regional population projections are based and would not, therefore, result in a significant cumulative adverse impact on population or growth.

North Baja Powerline

The North Baja Powerline is a 6-mile power line project in the southwest portion of the IID water service area. Two new power lines, parallel to the existing line, are proposed to run

from the Imperial Valley substation to the Mexican border. The parties involved with the project are the Simpia/Baja California Power Company and BLM.

- **Environmental Review Schedule.** BLM has submitted the Draft EIR/EIS for public review. The Final EIR/EIS is expected for release by March 2002.
- **Potential Cumulative Impacts.** The project could impact desert tortoise habitat, flat-tailed horned lizard habitat, and riparian habitat, occupied by the clapper rail, desert tortoise, and flat-tailed horned lizard. Although the Proposed Project could affect these species, implementation of the HCP would avoid and/or mitigate Project-related impacts, thereby avoiding adverse cumulative impacts to biological resources.

In addition to the biological impacts, the North Baja Powerline project could also result in short-term, construction-related impacts to air quality, traffic, and noise. The construction impacts of the North Baja Powerline project added to the impacts of the Proposed Project would result in cumulatively considerable short-term impacts to air quality, noise, and traffic in the IID water service area. Construction activities could be locally intensified if the projects are constructed concurrently. However, such impacts would occur during brief activity periods over the course of 75 years under the Proposed Project. In addition, construction-related impacts would not result in long-term alteration of the environment, and the Proposed Project's contribution to the cumulative impact would be avoided and/or mitigated to less than significant levels through the use of standard construction measures and BMPs.

The North Baja Powerline project could potentially result in the permanent conversion of Prime Farmland or Farmland of Statewide Importance to a non-agricultural use in the IID water service area. If non-rotational fallowing is used as a conservation measure, the Proposed Project would have the same impact in the IID water service area, resulting in a significant unavoidable impact. The Proposed Project's contribution to this impact would be cumulatively considerable. No measures have been proposed to mitigate or avoid this impact unless the Proposed Project does not employ non-rotational fallowing as a conservation measure.

Imperial Project

The Imperial Project is a proposal by Glamis Imperial Corporation to develop an open-pit, precious metal mining operation utilizing heap leach processes. The project area, which is located entirely on public lands administered by BLM, El Centro Field Office of the California Desert District, is located in eastern Imperial County, California, approximately 45 miles northeast of El Centro, California, and 20 miles northwest of Yuma, Arizona.

- **Environmental Review Schedule.** A Final EIR/EIS was issued by BLM and Imperial County in September 2000. A validity study, to determine whether the project is viable from an economic standpoint, was completed by BLM in September 2002. BLM determined the mining claims associated with the proposed mine in eastern Imperial County are valid. BLM's next step is to complete its review of the November 2000 Final EIS/EIR to decide if the EIS/EIR is still adequate to determine whether to approve or deny the mine. This review is expected to take three months.
- **Potential Cumulative Impacts.** The project would produce groundwater in the project area for mining activities and domestic water. However, the mitigation measures included in

the Imperial Project's Final EIR/EIS will prevent excessive drawdown or damage to the local aquifer. No adverse cumulative impact would occur related to groundwater.

Implementation of the Imperial Project will also contribute to exceedance of the 24-hour CAAQS for PM₁₀ in the SSAB. Although the Imperial Project's Final EIR/EIS includes mitigation measures to reduce this impact to a less than significant level, the EIR/EIS still concludes that the PM₁₀ impact is cumulatively significant. The proposed mitigation for the Proposed Project's air quality impacts related to PM₁₀ emissions in the SSAB (see Section 3.7, Air Quality) is potentially sufficient to avoid or suppress PM₁₀ emissions to less than significant levels. However, a level of uncertainty remains regarding whether short-term and long-term impacts can be mitigated to a less-than-significant level. Therefore, to be conservative, the EIR/EIS concludes that the impacts are potentially significant and unmitigable. Consequently, a cumulatively significant air quality impact could result from implementation of the Proposed Project and the Imperial Project. The Salton Sea Restoration Project could reduce the impact depending on the type and location of restoration proposed.

5.1.1.2 Agreements, Plans, and/or Projects with Potential Short-term Related or Cumulative Impacts

Gateway of the Americas Specific Plan as the New Port of Entry

The Gateway of the Americas Specific Plan Area (Gateway) is a master-planned industrial and commercial complex consisting of approximately 1,775 acres owned by private parties, as well as federal, state, and local agencies. The planning area is adjacent to the International Boundary, approximately 6 miles east of Calexico. It surrounds the new 87-acre International Port of Entry on the US side of the border. Gateway would provide a broad array of industrial-, commercial-, and transportation-related services, as well as retail shopping, business offices, and lodging, which would be required throughout the area as a result of the traffic generated by the International Port of Entry. The area is bounded on the west by the Ash Canal, on the north by a line parallel to the centerline of State Route 98, on the east by the Alamo River, and on the south by the northern right-of-way of the AAC (SSA and Reclamation 2000).

- **Environmental Review Schedule.** Imperial County prepared the Final PEIR for the Gateway Specific Plan in 1997 (Imperial County Planning Department 1997). The project is in various stages of development in the initial construction phase (Phase 1). Phase 2 is expected to continue for 20 to 40 years (Jones 2000).
- **Potential Cumulative Impacts.** Implementation of the Gateway project would result in short-term air quality, noise, and transportation impacts from construction in and around Calexico. The construction impacts of the Gateway project added to the impacts of the Proposed Project would result in cumulatively considerable short-term impacts to air quality, noise, and traffic in the IID water service area. Construction activities could be locally intensified if the projects are constructed concurrently. However, such impacts would occur during brief activity periods over the course of 75 years under the Proposed Project and 20 to 40 years under the Gateway project. In addition, construction-related impacts would not result in long-term alteration of the environment, and the Proposed Project's contribution to the cumulative impact would

be avoided and/or mitigated to less than significant levels through the use of standard construction measures and BMPs.

The Gateway project could potentially result in the permanent conversion of Prime Farmland or Farmland of Statewide Importance to a non-agricultural use in the IID water service area. If non-rotational fallowing is used as a conservation measure, the Proposed Project would have the same impact in the IID water service area, resulting in a significant unavoidable impact. The Proposed Project's contribution to this impact would be cumulatively considerable. No measures have been proposed to mitigate or avoid this impact unless the Proposed Project does not employ non-rotational fallowing as a conservation measure.

Te' Ayawa Energy Center

The Torres Martinez Band of Desert Cahuilla Indians has concluded negotiations for construction of a \$275 million Te' Ayawa Energy Center, a 600-megawatt (MW) natural-gas-fired power plant on leased reservation land near Mecca. The Calpine Corporation of San Jose, California is developing the plant. Te' ayawa Energy Center is negotiating with Reclamation and CVWD for use of Coachella Canal water for cooling the facility. The plant plans to pump up to 4 KAFY of water from the Coachella Canal and additional groundwater would be pumped for potable water supply.

- **Environmental Review Schedule.** A revised NOI was issued in January 2001. A NOA for the Draft EIR/EIS was published in the Federal Register on October 5, 2001.
- **Potential Cumulative Impacts.** The project would use Coachella Canal water and pump groundwater. Increased pumping would increase overdraft in the Lower Coachella Valley. No adverse cumulative impact would occur related to groundwater.

The project would use a "zero liquid discharge" system for treatment of process wastewater, including cooling tower blowdown. Water cycled in a cooling tower would be concentrated into a sludge-like consistency and evaporated from onsite ponds. The resulting mineral concentration that builds up in the ponds would be stored, dried, and eventually hauled offsite for disposal at an appropriate landfill. Because no water is proposed to be discharged into the CVSC or agricultural drain system, no additional inflows to the Salton Sea are attributable to this project, and no cumulative hydrology and water quality impacts are anticipated in association with the Proposed Project.

Cumulative impacts could, however, result from the construction of the energy center and the groundwater recharge facilities under the Proposed Project's second scenario. However, construction-related impacts would not result in long-term alteration of the environment, and it is anticipated that the Proposed Project's contribution to the cumulative impact would be avoided and/or mitigated to a less than cumulatively considerable level through the use of standard construction measures and BMPs that will be identified in the Coachella Valley Water Management Plan PEIR (release pending); therefore, no significant cumulative impact as a result of construction would occur.

5.1.1.3 Agreements, Plans, and/or Projects with Potential Short-term Related or Cumulative Impacts as well as Beneficial Effects

Heber Wastewater Treatment System Project

The Heber Wastewater Treatment Plant serves the community of Heber, which is located approximately 5 miles north of the Mexican border in Imperial County. The plant discharges to an agricultural drain that is a tributary to the Alamo River, and then to the Salton Sea. The plant is expanding capacity from 0.402 to 0.810 mgd and upgrading disinfection (Ringle 2000).

- **Environmental Review Schedule.** The wastewater facilities were expanded in September 2001. Plans for renovation of the older portion of the plant are currently in progress, with a construction completion scheduled for June 2002.
- **Potential Cumulative Impacts and Beneficial Effects.** When the expanded plant is at full capacity, it would increase the flow of freshwater to the Salton Sea by approximately 457 AFY out of a total 1.363 MAFY (Heber Public Utility District 1998). This project could result in a beneficial impact to the Salton Sea from improved water quality of the discharge to the Sea.

Implementation of this project would result in short-term air quality, noise, and transportation impacts from construction in the IID water service area. The construction impacts of this project added to the impacts of the Proposed Project would result in cumulative short-term impacts to air quality, noise, and traffic in the IID water service area. Construction activities could be locally intensified if the projects are constructed concurrently. However, such impacts would occur during brief activity periods over the course of 75 years under the Proposed Project. In addition, construction-related impacts would not result in long-term alteration of the environment, and the Proposed Project's contribution to the cumulative impact would be avoided and/or mitigated to a less than cumulatively considerable level through the use of standard construction measures and BMPs; therefore, no significant cumulative impacts as a result of construction would occur.

The Heber Wastewater Treatment Plan project could potentially result in the permanent conversion of Prime Farmland or Farmland of Statewide Importance to a non-agricultural use in the IID water service area. If non-rotational fallowing is used as a conservation measure, the Proposed Project would have the same impact in the IID water service area, resulting in a significant unavoidable cumulative impact to agricultural resources. The Proposed Project's contribution to this impact would be cumulatively considerable. No measures have been proposed to mitigate or avoid this impact unless the Proposed Project does not employ non-rotational fallowing as a conservation measure.

Mexicali Wastewater System Improvements

Untreated or partially treated wastewater from Mexicali, Mexico, is discharged into the New River, which flows north into the US and ultimately empties into the Salton Sea (SSA and Reclamation 2000). The purpose of the Mexicali Wastewater System Improvement project is to improve the water quality of the New River by improving wastewater treatment facilities in Mexicali.

The Mexicali Wastewater System Improvements consists of 41 projects in Mexicali to resolve problems related to the quality of water treated by the existing Mexicali wastewater system and treatment plant. The existing plant serves the Mexicali I zone of the city, as well as untreated wastewater discharges to the New River from the sewer system that serves the Mexicali II zone of the city. Projects include the rehabilitation and expansion of the Mexicali I wastewater system and treatment plant to treat 30 million gallons per day (mgd) and the construction of a 20-mgd wastewater treatment plant and associated facilities.

At the time of publication of this Final EIR/EIS, neither US EPA nor IBWC were aware of any plans to redirect the treated water for use in Mexico (McNaughton 2002, Torrez 2002, Pena 2002). Similarly, the environmental documentation for the wastewater system improvements states that all wastewater collected for treatment will be discharged to the New River (US EPA and IBWC 1997). The general impact of the Mexicali wastewater system work would be a beneficial impact on the quality of inflows to the Salton Sea (CVWD et al. 2002) and the New River (IBWC 1997).

- **Environmental Review Schedule.** Contracts for portions of Mexicali I have been awarded, and construction of these components began in the fall of 2000. Construction is planned for completion by 2004 (Pena 2000). The construction of the Mexicali II wastewater treatment plant is estimated to be completed by the end of 2003 (Aibarra 2001).
- **Potential Cumulative Impacts and Beneficial Effects.** The project would be expected to result in a beneficial effect on the quality of the New River and ultimately the Salton Sea.

Whitewater River Basin Flood Control Project

The Whitewater River Basin Flood Control project is a cooperative effort between the Corps and CVWD to evaluate flood protection measures within the Thousand Palms area of the Whitewater River Basin. The 45-square-mile project area is located in Riverside County and includes unincorporated territory, as well as portions of Cathedral City and Indio. The project consists of constructing three levees to protect the Thousand Palms area from flooding and convey stormwater to the Coachella Valley fringe-toed lizard preserve. The preferred alternative of the feasibility study (Corps 2000) proposes a number of levees and a 550-acre floodway that would protect developed areas from flood flows from the Indio Hills, while allowing sediment carried by flood flows to be deposited in the wind corridor or directly in the Coachella Valley Preserve.

- **Environmental Review Schedule.** Environmental documents for the project have been completed. The Corps started final design in November 2001. CVWD estimates a 2-year design period to be completed by December 2002, followed by a 5-year construction period. The project is expected to be operational in late 2005 to early 2006 (CVWD 2000).
- **Potential Cumulative Impacts and Beneficial Effects.** The project would reduce peak flood flows and decrease scour in the CVSC, leading to a beneficial impact on wetland habitat in the CVSC. Implementation of this project would also result in beneficial impacts to biological resources in the Coachella Valley and Salton Sea area.

Cumulative impacts could also result from the construction of the levees and the groundwater recharge facilities for the Project's second scenario. However, construction-related impacts would not result in long-term alteration of the environment, and it is anticipated that the Proposed Project's contribution to the cumulative impact would be

avoided and/or mitigated to a level that is less than cumulatively considerable through the use of standard construction measures and BMPs that will be identified in the Draft CVWD Water Management PEIR (release pending); therefore, no significant cumulative impacts as a result of construction would occur.

5.1.1.4 Agreements, Plans, and/or Projects with Potential Beneficial Effects

Biological Conservation Measures in USFWS' Biological Opinion

As discussed above, Reclamation entered into consultation with the USFWS under Section 7 of the federal ESA to address the potential impacts to federally listed species and their habitats along the LCR as a result of implementation of the Interim Surplus Guidelines and the IA. The IA facilitates those QSA components which affect LCR diversions and flows, including the Proposed Project. In connection with that consultation, Reclamation prepared a BA in August 2000 (Reclamation 2000), and a BO was issued by USFWS in January 2001 (USFWS 2001).

Pursuant to the BO, Reclamation has committed to implement certain biological conservation measures that are intended to offset the aggregate impacts of the changes in LCR diversions and flows resulting from the IA and the Interim Surplus Guidelines. The BO does not specifically distinguish biological conservation measures which offset the Proposed Project's impacts as distinct from the impacts of other IA actions. Therefore, this cumulative impact analysis focuses on the overall impacts of the BO. The biological conservation measures are described in detail and assessed in the IA EIS, which is incorporated into this EIR/EIS by reference.

- **Environmental Review Schedule.** Impacts of the biological conservation measures identified in the BO are evaluated for NEPA compliance in the IA EIS, which was released by Reclamation on January 11, 2002. Future, site-specific environmental analyses will evaluate site-specific impacts prior to implementation of these measures.
- **Potential Cumulative Impacts.** The BO, which set forth the biological conservation measures, provides ESA compliance for the aggregate LCR impacts of the Proposed Project, QSA, IA, and Interim Surplus Guidelines. This EIR/EIS relies upon those measures to mitigate the LCR impacts of the Proposed Project. This EIR/EIS assesses, for CEQA purposes, the issuance of incidental take permits under CESA for impacts to state-listed species along the LCR as a result of the Proposed Project and provides for appropriate mitigation. On a long-term basis, implementation of the biological conservation measures and other measures required under CESA would result in beneficial impacts to biological resources along the LCR, and no significant cumulative adverse impacts are anticipated.

There may be short-term construction-related impacts associated with the habitat restoration efforts, such as short-term impacts to biological resources, potential impacts to cultural resources, and potential water quality impacts resulting from sedimentation. It is expected that these impacts would be reduced to less-than-significant levels through site-specific measures once sites are identified and detailed project plans are developed to implement these conservation measures. Mitigation for construction-related impacts of the Proposed Project is included in this EIR/EIS and will reduce those impacts to a

level which is less than cumulatively considerable; therefore, no significant cumulative adverse impact due to construction will occur.

The biological conservation measures may also require additional use of Colorado River water for habitat construction and maintenance. Issues associated with the Decree accounting and water allocations have not been fully resolved. It is anticipated, however, that this water use would be relatively small and would result in a less-than-significant impact to water resources; therefore, no significant cumulative adverse impacts to water resources would result.

Lower Colorado River Multi-Species Conservation Program

The LCR MSCP is a partnership of state, federal, tribal, and other public and private stakeholders with an interest in managing the water and related resources of the LCR Basin. The purposes of the LCR MSCP are as follows:

- Conserve habitat and work toward the recovery of “covered species” within the historic floodplain of the LCR, pursuant to the federal ESA, and reduce the likelihood of additional species listings under the ESA.
- Accommodate current water diversions and power production, and optimize opportunities for future water and power development, to the extent consistent with law.
- Provide the basis for federal ESA and CESA compliance via incidental take authorizations resulting from the implementation of the first two purposes.

The LCR MSCP covers the mainstem of the LCR from below Glen Canyon Dam to the southerly international boundary with Mexico. The program area includes the historic floodplain and reservoir full-pool elevations. Potential conservation measures would focus on the LCR from Lake Mead to the southerly international boundary. More than 100 federal or state-listed, candidate, and sensitive species and their associated habitats, ranging from aquatic, wetland, and riparian habitats to upland areas, would be addressed. The program would address the biological needs of mammals, birds, fish, amphibians, and reptiles, as well as invertebrates and plants.

The comprehensive program is planned to be implemented over a 50-year period and would address future federal agency consultation needs under the ESA’s Section 7, and non-federal agency needs for endangered species incidental take authorization approval under ESA’s Section 10.

The LCR MSCP is intended to cover any incidental take associated with a number of actions, including changes in the point of diversion of up to approximately 1.574Y MAF of Colorado River water from below Parker Dam. This volume is based on a series of conceptual transfers and changes in points of diversion that would maintain full aqueducts to urban users and provide water for anticipated federal programs. With the exception of the 400 KAFY addressed in the BO, none of the conceptual “covered projects” are proposed and considered reasonably foreseeable from a CEQA perspective (CVWD et al. 2002).

- **Environmental Review Schedule.** An EIS/EIR and BA will be prepared to analyze the impacts of the LCR MSCP. Reclamation and USFWS are the lead agencies under NEPA, and MWD is the lead agency under CEQA. An NOI and an NOP were filed in May 1999, and seven scoping hearings were held in June and July 1999 to inform the public about

the LCR MSCP and solicit input. A Supplemental NOI to prepare an EIS/EIR on the project was published in the Federal Register on July 12, 2000, and additional scoping meetings were held in July and August 2000. The LCR MSCP is scheduled for public release in late 2002. Completion of environmental review, a ROD by the Secretary, federal ESA and CESA permitting, and execution of an implementation agreement among LCR MSCP participants is scheduled for 2003. The details of the impacts of the projects covered by the ESA/CESA compliance provided by the LCR MSCP would undergo separate environmental evaluation when and if such projects are proposed.

- **Potential Cumulative Impacts.** Implementation of the LCR MSCP is designed to have a beneficial impact on habitat along the LCR. Conservation measures necessary to account for the incidental take of protected species within the historic floodplain of the LCR would be implemented within the next 50 years. Additional conservation measures are planned to assist in the recovery of the covered species. These conservation measures are expected to include the restoration of existing degraded and/or the construction of new open water, marsh, and riparian forest habitats. The first phase of these actions is likely to restore cottonwood-willow habitat suitable for southwestern willow flycatcher and western yellow-billed cuckoo, mesquite habitat, and marsh habitat suitable for the Yuma clapper rail and other similar species. In addition, native fish refugia would be created, and native fish populations may be supplemented by hatchery-raised fish. Later phases would add more habitat based on adaptive management principles. Implementation of the conservation measures associated with the LCR MSCP is expected to mitigate any adverse effects of current and future diversions of the Colorado River, and no significant cumulative adverse impacts to biological resources will result from the LCR MSCP in combination with the Proposed Project.

Short-term construction-related impacts associated with the restoration efforts could occur, such as short-term impacts to biological resources and water quality and potential impacts to cultural resources. It is expected that these impacts would be reduced to less-than-significant levels through site-specific measures once sites are identified for the conservation efforts. Mitigation for construction-related impacts of the will be identified by Reclamation in subsequent documentation. No adverse significant cumulative impact due to construction would occur.

LCR MSCP conservation measures may also require additional use of Colorado River water for habitat construction and maintenance. Issues associated with the Decree accounting and water allocation have not been fully resolved. It is anticipated, however, that this water use would be relatively small and would result in a less than significant cumulative impact to water resources; would result in a less-than-significant impact to water resources; and, therefore, that no cumulatively considerable adverse impacts to water resources would result from the LCR MSCP in combination with the Proposed Project.

Colorado River Salinity Control Program

The Colorado River Basin Salinity Control Forum determined that 1,477,700 tons of salt must be removed or prevented from entering the Colorado River annually to maintain the numeric criteria established by 1974 Colorado River Basin Salinity Control Act, Public Law 93-320, as amended, through 2015. The salinity control plan includes projects that remove the required salt tonnage. To meet the goal of 1.48 million tons of salinity control through

2015, it would be necessary to fund and implement additional measures, which would ensure the removal of an additional 756,000 tons annually.

With respect to federal funding for the Colorado River salinity control program, the goal is to help secure the Forum's estimated funding of federal agencies necessary to maintain salinity at or better than the numeric criteria through year 2015:

- Reclamation - \$17.5 million/year
- USDA - \$12.0 million/year
- BLM - \$5.2 million/year

With respect to legislation to increase the authorized funding ceiling of Reclamation's new Basinwide Salinity Control Program by \$100 million, the goal is enactment in year 2000.

This action, pursuant to the 1974 Colorado River Basin Salinity Control Act, Public Law 93-320, as amended, provides for the construction, operation, and maintenance of projects in the Colorado River Basin to control the salinity of water delivered to Mexico. A wide range of salinity control actions have been undertaken in the Colorado River basin as part of this program. These actions include the construction of a desalting plant at Yuma, Arizona, the development of a protective well field along the US/Mexico border, a replacement flow study, a salinity control program on BLM land, a voluntary on-farm salinity control program by USDA, and a program for funding basinwide salinity control projects through competitive bid. These actions would be implemented by a variety of stakeholders; an interagency group, the Colorado River Basin Salinity Control Forum, coordinates the actions (Reclamation 2000b).

- **Environmental Review Schedule.** The salinity control program is not subject to environmental review.
- **Potential Beneficial Effects.** To achieve future reduction goals, a variety of Colorado River salinity control methods are being investigated. Existing salinity control measures under this program would prevent more than a half-million tons of salt per year from reaching the Colorado River (Reclamation 2002). The Proposed Project assumes the continued implementation of these salinity control projects as needed to maintain the quality of the Colorado River water diverted by IID, or transferred to other parties by IID as part of the Proposed Project, as identified in salinity control objectives. No adverse cumulative impacts would result from implementation of the Colorado River Salinity Control Program in conjunction with the Proposed Project.

CRB RWQCB'S Watershed Management Initiative

The Watershed Management Initiative is CRB RWQCB's internal planning mechanism for the Salton Sea Transboundary Watershed basin planning unit, the Priority Watershed in the Region. The watershed was identified as impaired under the 1998 California Unified Watershed Assessment (UWA). The UWA was a collaborative process between California and USEPA, developed to guide allocation of new federal resources for watershed protection. The watershed contains five main surface water bodies: the Salton Sea, New River, Alamo River, Imperial Valley agricultural drains, and the Coachella Valley Stormwater Channel (CVSC) (CRB RWQCB 1999).

- **Environmental Review Schedule.** The Watershed Management Initiative is not a project, but an overall plan that is not subject to environmental review. The Total Maximum Daily Load (TMDL) program, discussed in Section 5.1.1.8 would implement this initiative.
- **Potential Beneficial Effects.** The Watershed Management Initiative would result in beneficial water quality impacts in the Salton Sea Transboundary Watershed. Refer to Section 3.1, Hydrology and Water Quality, for additional information on TMDLs in this watershed. No adverse cumulative impacts would result from implementation of TMDLs in conjunction with the Proposed Project.

Total Maximum Daily Load Program

Pursuant to the requirements of the Clean Water Act, the CRB RWQCB identified and ranked “impaired waterbodies” for which TMDLs need to be established. The Board will develop and adopt an implementation plan for each TMDL/water body combination, and identify implementing actions, monitoring and surveillance for compliance, and for technical and economic feasibility. The Salton Sea tributaries have been identified as quality-limited waters. CRB RWQCB identified the New River, Alamo River, Imperial Valley drains, Salton Sea, Palo Verde outfall drain, and CVSC as quality-limited waters. The Salton Sea Watershed has also been identified as a priority watershed (CRB RWQCB 1998).

- **Environmental Review Schedule.** Table 5-1 identifies the schedule for establishment of TMDLs for the water bodies listed above. The schedule is subject to change based on regional and state priorities.
- **Potential Beneficial Effects.** The TMDL program is anticipated to improve the quality of the individual water-quality-limited waterbodies and the Salton Sea; therefore, the TMDL program is expected to have a beneficial effect on the quality of the waterbodies listed in Table 5-1, including the Salton Sea. Improvement in the water quality may have additional benefits affecting local and regional socioeconomic, biological, recreational, and other resources. The Proposed Project reduces the amounts of TSS and other COCs associated with irrigation drain water, which improves water quality in drains and rivers discharging into the Salton Sea; however, an increase in the concentrations of selenium and salt in these waterbodies is projected as a result of the Proposed Project. The TMDL process could result in beneficial impacts to the same water bodies and habitat areas that could be negatively affected by the Proposed Project. Water quality impacts of the Proposed Project are assessed in this EIR/EIS and no significant adverse cumulative impacts to water quality would occur as a result of implementation of the Proposed Project in conjunction with the TMDL program.

Brawley Constructed Wetlands Demonstration Project

The Brawley Constructed Wetlands Demonstration Project (Brawley Wetlands Project) involves the construction of two pilot treatment wetlands to improve water quality in the IID water service area’s agricultural drains, the New River, and the Salton Sea. A 5-acre wetland is being constructed on a 7-acre site near Brawley; this wetland is designed to divert and improve the quality of approximately 2.4 million gallons of New River water per year. A second, larger wetland (40 acres) is being constructed on a 68-acre site near Imperial. This 40-acre wetland would collect 6.9 million gallons of agricultural water per year from IID’s Agricultural Rice 3 Drain. Both wetlands are designed to remove silt from inflows as

they pass through the first sedimentation basin and to reduce nutrient loads, pesticide/herbicide toxicity, and selenium concentrations as water flows through a series of shallow ponds. A monitoring program will be conducted during the 3-year project term to determine relative water quality improvements and the effects on wildlife (SSA and Reclamation 2000).

TABLE 5-1
Schedule for TMDL Implementation

Water Body	Priority	Pollutant	Start/Completion Dates
New River	High	Silt	1998-2002
		Bacteria	1998-2005
		Nutrients	2002-2010
		Pesticides	2002-2013
		VOCs	2007-2013
Alamo River	High	Silt	1998-2010
		Selenium	2000-2010
		Pesticides	2002-2011
Imperial Valley Drains	High	Silt	1998-2010
		Selenium	2000-2010
		Pesticides	2005-2011
Salton Sea	Medium	Salt	1998-2001
		Selenium	2002-2007
		Nutrients	2002-2010
Palo Verde Outfall Drain	Medium	Bacteria	2005-2011
CVSC	Low	Bacteria	2005-2009

Source: CRB RWQCB 2001

The long-term goal of this project is to find cost-effective and reliable water quality treatment that would have beneficial local and statewide impacts on agricultural drain pollution. The short-term goal is to improve impaired agriculture drain water quality to meet and support water quality objectives and designated beneficial uses. IID is the lead agency for the study, which is supported by a single congressional appropriation with no secure long-term funding (SSA and Reclamation 2000). The data generated would assist in determining the TMDL (see Section 5.1.1.8) for silt by providing a pilot study of silt reduction. Data also would be collected for TMDLs for selenium, pesticides, and nutrients (SSA and Reclamation 2000).

- **Environmental Review Schedule.** The project and associated monitoring program would be conducted for 3 years. Once vegetation is established, the site could be used to treat New River water. An extensive monitoring program would then begin, and it would continue for 3 years. If the demonstration project is successful, the wetlands will remain in service beyond the initial 3-year project term. IID would seek additional funding for operation, maintenance, and continued monitoring (Grubaugh 2000).
- **Potential Beneficial Effects.** Implementation of this project is anticipated to improve the water quality of the agricultural drains in the IID water service area, the New River, and

the Salton Sea although the degree of improvement is not yet known. Wetlands could remove significant amounts of nitrogen, up to 80 or 90 percent, and less phosphorus (on the order of 30 to 40 percent). There is some concern over potential adverse impacts from this project with respect to the bioaccumulation of drainwater-related contaminants (e.g., selenium and organochlorine pesticides) (USFWS 1999); however, a significant impact may be identified as the study evolves. The wetlands were constructed on lands that do not support federally listed species and they will not permanently take agricultural land out of production. Overall, this project could result in beneficial effects on the same water bodies and habitat areas that could be adversely affected by the Proposed Project. Water quality and biological resources impacts of the Proposed Project are assessed in this EIR/EIS, and no significant adverse cumulative impacts would occur as a result of implementation of the Proposed Project in conjunction with the Brawley Constructed Wetlands Project.

Coachella Valley Multiple Species Habitat Conservation Plan

The purpose of the Coachella Valley Multiple Species HCP/Natural Communities Conservation Plan (CV MSHCP) would be to conserve adequate habitat to provide for the long-term viability of the designated species of concern and to simplify compliance with federal and state endangered species-related laws and regulations. CVAG and the Coachella Valley Mountains Conservancy are preparing the CV MSHCP, which would be subject to the approval of USFWS and CDFG. Participating agencies include NPS, NRCS, USFWS, US Forest Service, BLM, CDFG, California Department of Parks and Recreation, Riverside County, CVWD, MWD, and private landowners and organizations.

Thirty-one species of concern and 24 natural communities would be considered for coverage under the CV MSHCP, based on current habitat conditions and the extent of available information. The CV MSHCP area includes the entire Coachella Valley watershed, except those portions outside Riverside County or outside the boundaries of CVAG. The area covers more than 1.2 million acres (approximately 1,950 square miles) that include the valley floor and surrounding mountains up to the ridgeline.

In December 1999, a *Biological Analysis of Three Conservation Alternatives* for the CV MSHCP was prepared for review by the involved agencies. Preliminary draft maps of known locations of sensitive species were prepared concurrently. The plan does not include the fringe-toed lizard because this species has an existing HCP that is undergoing revision, but it does include the peninsula bighorn sheep, for which critical habitat has been adopted (CVAG 2000).

- **Environmental Review Schedule.** An administrative draft of the CV MSHCP containing three alternatives was prepared in August 2000. A single preferred alternative is now being considered, and a public draft CVMSHCP should be available in 2002.
- **Potential Beneficial Effects.** The CV MSHCP is expected to have a beneficial impact on habitat and special-status species in the Coachella Valley. Thus, no significant adverse impact would result from the CV MSHCP, and no significant cumulative adverse impact would result when considered in combination with the Proposed Project.

Lower Colorado River Desert Region Plan or Environmental Quality Incentives Program

Since 1997, the Natural Resources Conservation Service (NRCS) has been implementing a matching funds program to address water and air quality issues for 520,000 acres of irrigated cropland in the Imperial and Coachella Valleys. Cooperating parties are private landholders, Native American groups, IID, and the Bard Resource Conservation District. Reported project goals are the following:

- Reduce salinity levels in soil; reduce soil compaction and stratification.
- Reduce nitrate and pesticide concentrations in runoff agricultural drainage.
- Reduce nitrates leached into groundwater.
- Reduce PM₁₀ levels during “the critical periods.”

Every year, the program provides 50 percent matching funds to applicants for on-farm improvements in the valleys. Improvements could include slip plowing, cover crops to reduce erosion, planting windbreaks to reduce dust, nutrient (fertilizer) management, installation of tile drains, installation of drip systems, and other environmentally sound practices (NRCS 2000, Cameron 2000).

- **Environmental Review Schedule.** The program is not subject to an environmental review process.
- **Potential Beneficial Effects.** Implementation of projects partially funded by the program would benefit the quality of water in agricultural drains, reduce sediment in the drains, improve water use efficiency, improve drainage, and reduce nutrient and pesticides in drain water. The estimated degree of improvement is not available. The project could also improve the efficiency of agricultural practices in the IID water service area and the economic status of farmers in Imperial County. Water quality and socioeconomic impacts of the Proposed Project are assessed in this EIR/EIS, and no significant adverse cumulative impacts would occur as a result of implementation of the Proposed Project in conjunction with this program.

Dos Palmas Habitat Restoration/Enhancement

BLM administers the Dos Palmas Preserve, which is an approximately 14,880-acre wildlife refuge and nature preserve near the town of North Shore on the northeast shore of the Salton Sea. The purposes of the preserve are to

- Protect habitat (i.e., land acquisition, onsite caretaker, signing and fencing, fire management)
- Restore and manage habitat (i.e., fish pond reconfiguration, restoration of native plant communities and wildlife habitat, borrow pits)
- Provide public outreach and visitor services (i.e., interpretive information and education program, road and trail system, and public access)
- Conduct ecosystem studies and monitoring programs

An interdisciplinary team developed a restoration plan; components of the plan, including modifying 25 acres of wetlands to create habitat for endangered species and a tamarisk removal program, have been implemented. Sensitive species in the preserve include the Yuma clapper rail, black rail, Desert pupfish, flat-tailed horned lizard, prairie falcon,

Colorado Valley woodrat, and Orocopia sage. The fan palm oasis is fed by artesian springs and seepage from the nearby Coachella Canal (BLM 1998).

- **Environmental Review Schedule.** This project is not subject to environmental review.
- **Potential Beneficial Effects.** The pond reconfigurations are complete and the ponds are growing vegetation to emulate more natural plant communities which is attracting wildlife. Tamarisk eradication efforts continue. Implementation of the Dos Palmas Habitat Restoration/Enhancement project would result in beneficial effects to Desert pupfish and Yuma clapper rail. Biological resources impacts of the Proposed Project are assessed in this EIR/EIS, and no adverse cumulative impacts would occur as a result of implementation of the Proposed Project in conjunction with the Dos Palmas program.

Caltrans Route 86 Expressway Mitigation

Caltrans is implementing a phased mitigation project in association with impacts on wildlife habitat and Section 404 jurisdictional wetlands during construction of State Route 86 between Oasis and Indio in Riverside County. The biological mitigation completed for the project includes the reconstruction of 18.5 acres of wetlands and the creation of 20 acres of Desert pupfish habitat, including 2 years of monitoring of Desert pupfish habitat for plant establishment. Restoration of 112 acres of alkali sink scrub habitat is scheduled for completion in 2 to 3 years. Additional biological mitigation includes the implementation of visual mitigation planting at the interchange with Dillon Road (Caltrans 1994).

- **Environmental Review Schedule.** Biological mitigation for Phase I began in November 1996. Desert pupfish habitat creation and alkali sink marshland acquisition are complete, and negotiations with USFWS for additional alkali sink habitat are ongoing. Caltrans will establish a management plan under the proposed agreement that Caltrans will be responsible in perpetuity for the management of the acquired lands. Visual mitigation planting is scheduled to occur June 2001 through February 2005.
- **Potential Cumulative Impacts and Beneficial Effects.** Creation of the Desert pupfish habitat and wetland/marshland acquisition would have a beneficial effect on Desert pupfish. Biological resources impacts of the Proposed Project are assessed in this EIR/EIS, and no adverse cumulative impacts would occur as a result of implementation of the Proposed Project in conjunction with the mitigation program.

West Mojave Coordinated Management Plan

The West Mojave Coordinated Management Plan is a cooperative effort between BLM and 27 other federal and state agencies, cities, and counties to define a regional strategy for conserving plant and animal species and their habitats. The plan will address the management of the desert tortoise and 95 other special-status plant and wildlife species within a planning area approximately of 9.4 million acres. The planning area extends from Olancho in Inyo County, south to the San Gabriel and San Bernardino Mountains, and from Antelope Valley to as far east as Twenty-nine Palms.

Benefits of the plan would extend to landowners, land developers and users, and land management and regulatory agencies. Benefits would include providing a streamlined, predictable permit process; consistent mitigation and compensation obligations; reduced project costs from eliminating the need for biological surveys in some areas; reduced the

need for project-specific incidental take permits; and reduced uncertainty related to the requirements for long-term species and habitat conservation.

- **Environmental Review Schedule.** The planning effort is now in its 10th year.
- **Potential Beneficial Effects.** Beneficial biological resources impacts are anticipated through the creation/management of habitat (specifically with respect to the desert tortoise and the other targeted species). The HCP, which is included as part of the Proposed Project, includes measures to avoid and minimize impacts to special-status species associated with desert habitat that could occur as a result of IID's O&M activities. Because the HCP would reduce these impacts to biological resources to a less than cumulatively considerable level, and because, in combination with the Western Mohave Coordinated Management Plan, it will have a beneficial effect on biological resources, no adverse cumulative impacts to biological resources would occur. Biological resources impacts of the Proposed Project are assessed in this EIR/EIS, and no adverse cumulative impacts would occur as a result of implementation of the Proposed Project in conjunction with the management plan.

Northern and Eastern Colorado Desert Coordinated Ecosystem Management Plan

The Northern and Eastern Colorado Desert Coordinated Ecosystem Management Plan (NECO) is a multi-agency management plan for a wide range of habitats and species of concern. The planning area is approximately 5.5 million acres northeast of the Salton Sea. The project has two main goals. The first is to review the current land use plan, in view of the 1990 listing of the desert tortoise, which mandates new decisions on ground prescription proposals and land use. The land affected includes each of the recovery units in the northern Colorado Desert, the eastern Colorado Desert, and the eastern half of Joshua Tree National Park. The second goal is to expand the planning effort to include other species and habitats of concern. Approximately 30 wildlife species and 50 plant species are included (SSA and Reclamation 2000).

BLM is the lead agency for plan development, with cooperation from NPS, the US Marine Corps (USMC), USGS, USFWS, CDFG, Imperial County, and Riverside County. The management plan would become a binding plan for BLM, NPS, and the USMC gunnery range. Data gathering and analyses have been completed, and the plan is being finalized (Reclamation and SSA 2000).

- **Environmental Review Schedule.** BLM released a Draft EIS in association with this project in February 2001. The Final EIS is planned for completion by July 2001; a ROD is scheduled to be issued in September 2001.
- **Potential Beneficial Effects.** NECO would result in beneficial impacts on biological resources. Specifically, the plan would manage and preserve habitat for the federally threatened desert tortoise and several other sensitive plant and animal species.

The HCP, which is included as part of the Proposed Project, includes measures to avoid and minimize impacts to special-status species associated with desert habitat that could occur as a result of IID's O&M activities. Because the HCP would reduce these impacts to a level that is less than cumulatively considerable, and because NECO will have a beneficial effect on biological resources, no adverse cumulative impacts to biological

resources would occur as a result of implementation of the Proposed Project in conjunction with NECO.

Valley Sanitary District Wetlands Expansion Project

The Valley Sanitary District wastewater treatment facility is located in Indio, which is south of the CVSC. Three wetland treatment cells were developed in 2000 at a 29-acre site adjacent to the facility. The wetlands treat 1.0 mgd of effluent from the trickling filter plant clarifiers. After 4 to 24 days of treatment, effluent is expected to meet typical secondary effluent quality standards before discharge to the CVSC.

- **Environmental Review Schedule.** The wetlands have been constructed and are currently operational.
- **Potential Beneficial Effects.** The project creates wetlands habitat, resulting in beneficial effects on biological resources in the Coachella Valley. Inflows to the CVSC would be slightly reduced because of evapotranspiration from the wetlands. Nutrient loading to the CVSC would also be reduced. Water quality effects in the CVSC will be addressed in the Draft CVWD Water Management PEIR. No adverse cumulative impacts to water quality are anticipated to occur as a result of implementation of the Proposed Project in conjunction with the expansion project.

Coachella Valley/Salton Sea Nonpoint Original Source Project

The Whitewater River/CVSC carries agricultural drainage, treated municipal effluent and runoff to the Salton Sea. This project seeks to address nonpoint source pollution entering the Salton Sea and Whitewater River/CVSC. The lead agency for the project is the Torres Martinez Indian Tribe. Objectives of the project are as follows:

- Develop and implement groundwater protection measures.
 - Develop a cooperative water quality monitoring effort.
 - Construct wetlands test cells for treating agricultural drainage water with aquatic vegetation just upstream of the Salton Sea.
 - Implement BMPs for controlling nonpoint source pollution.
 - Increase public awareness and participation in pollution prevention.
- **Environmental Review Schedule.** The project is a testing and monitoring program on the Torres Martinez Reservation and is not subject to environmental review. Its CWA Section 319 funding will expire in December 2002.
 - **Potential Beneficial Effects.** The nature of the proposed groundwater protection measures has not been completely defined, but the project would include construction of wetlands. Wetlands could remove nitrogen and some phosphorus from CVSC flows - up to 80 to 90 percent of nitrogen in non-winter seasons, but much less phosphorus, up to 30 or 40 percent. The impact on the eutrophication process of the Salton Sea, the amount of phosphorus limiting, would therefore be minor (CVWD et al. 2002). Implementation of this project would result in beneficial impacts to biological resources in the Coachella Valley and Salton Sea area. The wetlands would also increase evapotranspiration, thus decreasing the flow and the increasing salinity in the CVSC. Water quality effects in the CVSC will be addressed in the Coachella Valley Water Management Plan PEIR. No

adverse cumulative impacts to water quality are anticipated to occur as a result of implementation of the Proposed Project in conjunction with the nonpoint source project.

5.1.2 Summary of Cumulative Impacts from All Related Projects

This section discusses the cumulative impacts to specific environmental resources resulting from the aggregate impacts of the Proposed Project and the other projects described in Section 5.1.1. Implementation of the Proposed Project, with or without the QSA, would not increase water supplies to the MWD and SDCWA service areas, and no construction in these service areas would occur; therefore, no direct or indirect cumulative impacts were identified within the water service areas of these two agencies; therefore, these water service areas are not addressed below.

5.1.2.1 Water Quality and Hydrology

The Proposed Project is a significant component of the QSA and the IA, which, when implemented with other related QSA/IA projects, would implement the California Plan, resulting in a beneficial effect on California's ability to reduce its use of Colorado River water to its annual normal-year apportionment (4.4 MAFY). Under the Proposed Project, QSA, and IA, California's diversions would be reduced and certain amounts redistributed, thereby increasing the reliability of SDCWA's and other southern California water agencies' water supply. Specific aggregate, cumulative impacts to hydrology and water quality as a result of the Proposed Project and other projects included in this cumulative impact assessment are described below.

Lower Colorado River

Implementation of the water transfers under the Proposed Project and other projects in this cumulative impact analysis, including the Palo Verde program, would result in changes in the amounts of water diverted at existing points of diversion in California. These changes in diversion points could reduce flow in the LCR between Parker and Imperial Dams. The Proposed Project would account for up to 300 KAFY of the total change in diversions (nearly 550 KAFY). The Interim Surplus Guidelines and IOP would result in minor changes in storage and reservoir levels. The overall hydrological impacts are considered adverse, but not cumulatively significant since the changes in LCR levels would be small when compared to the total volume of water transported annually by the LCR; in addition, the changes in River elevation are within the historic fluctuation of the River's elevation.

There is expected to be an increase in salinity in the LCR as a result of the Proposed Project and other projects in the cumulative impact analysis, such as the Interim Surplus Guidelines and IOP. At Imperial Dam, the IA could result in higher salinity levels of as much as 8 mg/L. Modeling results from the IA EIS show that the Proposed Project and other related projects could result in higher salinity levels below Parker Dam after year 2040 (as much as 1 mg/L) (Reclamation 2002). However, it was assumed as part of Reclamation's modeling efforts that the Colorado River Salinity Control Project will control increased salinity levels and ensure that salinity standards will continue to be met on the Colorado River (Reclamation 2002). Reclamation has stated that the implementation of the Colorado River Salinity Control Program will control salinity so that it does not exceed 879 mg/L at Imperial Dam. Therefore, no adverse cumulative impact to the water quality of the LCR would occur.

IID Water Service Area

Conservation of water in the IID water service area and the transfer of that water to other water agencies would decrease the amount of water in the IID drainage system. Depending on the type and amount of conservation measures implemented within the IID water service area as a result of the Proposed Project, the proportion of tailwater and tilewater entering the drains would vary and the water quality of the drains would change over time as the conservation measures are implemented to meet IID's obligations under the terms of the IID/SDCWA Transfer Agreement and/or the QSA. In general, the conservation of irrigation water through on-farm and water delivery system measures results in less flow in the IID water service area drains and rivers, an increase in selenium concentrations in the drains and rivers, and a decrease in TSS and other water quality constituents associated with the tailwater that would be conserved for transfer. Reduced water in the IID drains and in the New and Alamo Rivers as a result of the Proposed Project results in reduced inflows to the Salton Sea. This EIR/EIS provides for mitigation of Proposed Project-related impacts, other than impacts related to increased selenium concentrations, which are considered significant and unavoidable.

Although the Proposed Project and other projects described in this cumulative impact analysis could have a minor effect on groundwater in the IID water service area, the effect is not considered a significant adverse cumulative impact to groundwater resources or water quality in the IID water service area. No additional significant cumulative impacts to hydrology or water quality in the IID water service area would occur.

Salton Sea

Implementation of the water conservation and transfer component of the Proposed Project is expected to accelerate increases in the salinity and decreases in water surface elevation of the Salton Sea. Implementation of the some of the other projects described in this cumulative impact analysis could add to these effects; however, the incremental effect of these projects is not substantial. Transfer of water conserved under the Proposed Project's second scenario (QSA Implementation) to the CVWD service area would increase the flow of drainage water into the Salton Sea from that source. This water may be more saline than present inflows but would nevertheless offset some of the inflow reduction associated with the Proposed Project. In addition, implementation of the Salton Sea Habitat Conservation Strategy component would avoid the Proposed Project's hydrological and water quality-related effects on the Sea. Programs, such as TMDL, the Salton Sea Restoration Project, and the Brawley Wetland Project, would ameliorate water quality degradation of the Salton Sea by removing salts from the Sea itself or by limiting the inflow of salts and/or other water quality COCs.

As described in this EIR/EIS, there is no water quality standard for salinity in the Salton Sea, although increasing salinity is expected to affect fish populations that support piscivorous birds, as discussed below in connection with biological resources. Therefore, there will be no significant cumulative impact to water quality due to salinity increases. No significant cumulative impact would occur to hydrology and water quality of the Salton Sea with implementation of the Proposed Projects and other related projects.

CVWD Service Area

Implementation of the Proposed Project second implementation scenario (QSA Implementation) within the CVWD service area would result in the availability of

additional Colorado River water to the Coachella Valley as a result of conserved water in the IID water service area. Transfer of up to 100 KAFY of conserved water to CVWD under the Proposed Project would allow for the reduction of the use of groundwater so that current rates of groundwater overdraft could be reduced. This would result in a beneficial effect on the flows to the Salton Sea. The increased amount of Colorado River water would also be expected to result in increased flows within the agricultural drains.

The other projects identified in the cumulative impact analysis may result in additional use of the groundwater resources or drain water in the CVWD service area. This use would be small when compared to the overall benefit of the Proposed Project to the groundwater aquifer. There is a potential however, that the water quality within shallow groundwater aquifers (not those aquifers primarily used within the CVWD service area for water supply) and within the drains may deteriorate both from the use of the saltier Colorado River water and the movement of the higher saline groundwater into the canal system due to higher groundwater levels. This impact is considered a potentially adverse cumulative impact and is described in the Draft Coachella Valley Water Management Plan PEIR (released in June 2002, subsequent to IID's certification of the June 2002 Final EIR/EIS).

5.1.2.2 Biological Resources

The water conservation and transfer component of the Proposed Project would accelerate impacts to biological resources in the Salton Sea. Implementation of the HCP component of the Proposed Project would avoid and/or mitigate these impacts. The HCP could increase the use of fallowing if fallowing is used to generate mitigation water for the Salton Sea under the Salton Sea Habitat Conservation Strategy. Implementation of the HCP would reduce Project-related impacts to the Sea's biological resources to a level that is less than cumulatively considerable. Other programs, such as the Salton Sea Restoration Project, the TMDL program, and other wetland enhancement projects, would also offset cumulative impacts to biological resources in the Salton Sea.

Implementation of the biological conservation measures on the LCR would mitigate impacts to federally listed species. Consultation with CDFG will be conducted to identify any additional measures needed to mitigate impacts to state-listed species along the LCR.

5.1.2.3 Agriculture Resources

Implementation of the Proposed Project could result in the permanent reduction of Prime Farmland or Farmland of Statewide Importance in the IID water service area if non-rotational fallowing is employed to conserve water.

Under the PVID Land Management, Crop Rotation, and Water Supply Program agricultural land may be taken out of production for periods of time. While the PVID Program is outside of the region of influence directly affected by the Proposed Project, the projects considered in the cumulative impact analysis may have a combined cumulative impact on the amount of agricultural land in Imperial County and in California in general. Most California counties have shown a net decrease in agricultural land. Areas in Arizona have shown either a moderate to high reduction in agricultural land or a substantial increase (Reclamation 2002b). The impact to agricultural land under the Proposed Project in conjunction with the PVID program is considered cumulatively considerable; unless non-

rotational fallowing is not employed as a conservation measure under the Proposed Project, this impact will remain cumulatively considerable.

Under the biological conservation measures, land along the LCR may be converted to habitat, which would contribute to the reductions in farmland and cumulative losses described above. The amount of land that may be converted to habitat along the LCR is negligible when compared to the agricultural land that may be affected in the IID water service area or Palo Verde area.

5.1.2.4 Recreation and Aesthetics

Implementation of the Proposed Project would accelerate the rate of salinity increase in the Sea, thereby reaching thresholds of salinity that impair the reproduction of sport fish at an earlier date as compared to the Baseline. Other projects in the cumulative impact analysis, including the Coachella Valley Water Management Plan, are expected to also accelerate the rate of salinity increase in the Sea, which, combined with the Proposed Project, would lead to a cumulatively considerable impact on the sport fish industry. Implementation of the HCP could, however, offset the Proposed Project's contribution to this cumulative impact.

If the Salton Sea Restoration Project were implemented, it is unknown if the selected restoration project would maintain sport fishing opportunities at existing levels, although they would be maintained if the rate of salinity increase were to stabilize. The feasibility and benefits of the restoration effort is not known at this time.

A decline in Salton Sea elevation would result from implementation of the Proposed Project that would be greater than the decline predicted under the Baseline. While the magnitude of the decline is greater than under the Baseline, the impact on aesthetics would be similar. Implementation of the mitigation measures would reduce the impact to less than significant levels. Other projects that have the potential to reduce inflow to the Sea could increase the magnitude of the impact to the viewer. Transfer of up to 100 KAFY of conserved water to CVWD would partially mitigate the impact on sea elevation. Implementation of the HCP would avoid the impact to Sea elevation.

5.1.2.5 Air Quality

Construction of on-farm irrigation or water delivery system water conservation measures may result in temporary air quality impacts. Implementation of construction dust control measures would mitigate this impact to less than significant levels. Similar measures would normally be employed for other construction projects, therefore, the cumulative impacts of these projects would be at levels less than significant.

Fallowing of agricultural lands could result in additional dust emissions. The PVID project may also result in increase in dust emissions, however, the area is remote from the Imperial Valley and therefore, no cumulative impact would be expected in the region.

The long-term impact of conserving water in the IID water service area may result in an increase in fugitive dust emissions from the exposure of the seabed of the Salton Sea as the elevation declines with reduced inflows after year 2035. The proposed mitigation for the Proposed Project's air quality impacts related to PM₁₀ emissions in the SSAB (see Section 3.7, Air Quality) is potentially sufficient to avoid or suppress PM₁₀ emissions to less than significant levels. However, a level of uncertainty remains regarding whether short-term

and long-term impacts can be mitigated to a less-than-significant level. Therefore, to be conservative, the EIR/EIS concludes that the impacts are potentially significant and unmitigable. The Imperial Project would also result in a significant cumulative impact as a result of fugitive dust emissions. Consequently, a cumulatively significant air quality impact could result from implementation of the Proposed Project and the Imperial Project. Other projects considered in this analysis would have no or a positive impact on Salton Sea elevation. The Salton Sea Restoration Project could reduce the impact depending on the type and location of restoration proposed.

5.1.2.6 Noise and Transportation

Implementation of the Proposed Project would result in minor construction impacts to noise and transportation in the IID water service area and CVWD service area as a result of the Proposed Project. Similarly, implementation of some of the projects listed in this cumulative impact analysis, such as the Gateway project and the Whitewater River Basin Flood Control Project, would result in construction impacts to these resource areas. Construction-related impacts would not result in long-term alteration of the environment, and the Proposed Project's contribution to the cumulative impact would be avoided and/or mitigated to less than significant levels through the use of standard construction measures and BMPs. The Proposed Project, therefore, would not result in cumulatively considerable impacts to these resource areas.

5.1.2.7 Socioeconomics

A range of potential impacts to the Imperial County's socioeconomic conditions is expected to result from implementation of the Proposed Project. A reduction in employment opportunities may result depending on the specific type and amounts of water conservation methods that are selected. Employment opportunities may decline if the amount of land that is fallowed increases, while jobs would be created by the construction and operation of either on-farm irrigation or water delivery system water conservation measures. Depending on the relative proportion of the conservation measures, an impact or benefit in Imperial County may accrue through implementation of the Proposed Project. Other projects identified in this cumulative impact analysis could also result in construction and operational demands that increase employment opportunities in Imperial County. No cumulative socioeconomic impacts in Imperial County would result from implementation of the Proposed Project because the projects in this analysis will not result in adverse socioeconomic impacts in the county.

Implementation of the Proposed Project, the QSA, and the PVID following program would impact power generation capacities at Headgate Rock Dam and potential economic impacts to CRIT. Overall, however, the loss in power generation capacity would be less than cumulatively considerable and the economic impacts to CRIT are too speculative to describe with great clarity in this EIR/EIS.

5.2 Growth-inducing Impacts

This subsection describes the development and growth trends in southern California and the growth-inducing potential of the Proposed Project.

5.2.1 Introduction and Summary

Under both NEPA and CEQA, indirect and growth-inducing impacts associated with the Proposed Project must be considered. Therefore, this EIR/EIS assesses and discloses the potential environmental consequences of approving the Proposed Project relative to potential indirect, growth-inducing, and related cumulative effects.

The Council on Environmental Quality's Regulations (Section 1508.8[b]) provide guidance to federal agencies for evaluating indirect effects:

Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

A growth-inducing impact is defined by the State CEQA Guidelines (Section 15126.2[d]) as:

[T]he ways in which the Proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth...It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment].

Based on the NEPA and CEQA guidelines and regulations, this EIR/EIS uses two tests to make a growth-inducement determination. First, would the Proposed Project remove a barrier to growth, and second, could the Proposed Project provide additional water for consumptive use, thereby fostering population or economic growth or new construction. The Proposed Project does not trigger either of these criteria because no additional water would be supplied, and maintenance of current and historic water supply levels does not constitute removal of an existing barrier to growth.

The QSA was negotiated to quantify the amount of water available to all of southern California from the Colorado River. This amount would be substantially less than has been diverted historically. The delivery of Colorado River water to MWD's service area would be very similar to the historical averages for the past 15 years. The same is true for the SDCWA service area as well as for the rest of MWD's member agencies. CVWD's increased water deliveries of Colorado River water would be used to directly offset groundwater pumping. There would be a net-zero increase of water used in its service area.

5.2.2 Population Growth Trends in Southern California

Population projections for southern California prepared by DOF, southern California Association of Governments (SCAG), and San Diego Association of Governments (SANDAG) anticipate steady growth over the next 20 to 40 years. It is anticipated that by 2040, southern California will house as many people as live in the entire state today. Although estimates prepared by SCAG (see Table 5-2) sometimes differ from DOF and SANDAG forecasts, all the numbers reflect an expectation of substantial growth in the area. All of the projections are based on the assumption that the necessary water supplies would continue to be available to the region into the future (DOF 2000; SCAG 1999; SANDAG 1999).

SCAG adopted the Regional Comprehensive Plan and Guide (RCPG) in 1996 for the purpose of setting regional growth goals and identifying strategies for agencies to use in implementing the proposals in the plan through the year 2015. The RCPG includes goals for the economy, growth management, transportation, air quality, housing, open space, water resources, and their implementation. In addition, SCAG has adopted, and is now revising, the Regional Transportation Plan, which identifies transportation needs within the region, including automobile, transit, and other transportation modes, future transportation projects, and funding. SANDAG, in collaboration with San Diego County and the county's 18 cities, adopted a Regional Growth Management Strategy in 1993. The Regional Growth Management Strategy provides goals for improving the quality of life in San Diego County through specific growth management, conservation, and social measures. The county and cities have incorporated the provisions of the strategy into their individual general plans (SANDAG 1998). SANDAG has adopted the Regional Transportation Plan for San Diego County.

TABLE 5-2
Southern California Population Forecast

County	1990	2000	2010	2020	2040²
Imperial	109,000	149,000	207,000	280,000	504,000
Los Angeles	8,860,000	9,810,000	10,870,000	12,250,000	13,890,000
Orange	2,410,000	2,850,000	3,090,000	3,250,000	4,007,000
Riverside	1,170,000	1,680,000	2,220,000	2,820,000	4,450,000
San Bernardino	1,420,000	1,770,000	2,230,000	2,830,000	4,420,000
San Diego ¹	2,510,000	2,940,000	3,440,000	3,850,000	5,120,000
Ventura	670,000	712,000	804,000	932,000	1,280,000
Total	14,576,000	16,971,000	19,421,000	22,362,000	33,500,000

Source: SCAG 1999 - projections from "State of the Region – April 1999"

¹ With the exception of the 2040 projections, the San Diego projections are from SANDAG's "2020 Cities/County Forecast" 1998

²State of California, California Department of Finance, Table 2, July 2000

5.2.3 Growth-Inducing Impacts

This section assesses the growth-inducement potential of the Proposed Project in the LCR, IID water service area and AAC, Salton Sea, SDCWA service area, MWD service area, and CVWD service area geographic subregions. Further information on the growth-inducement potential of the Proposed Project in these areas can be found in the Draft QSA PEIR and the Coachella Valley Water Management Plan PEIR (release pending).

5.2.3.1 Lower Colorado River

Because no change in land use, water supply, or population would be involved in implementation of the Proposed Project in the LCR geographic subregion, no impact on

population or housing in this subregion would occur; hence no growth-inducing impacts would occur.

5.2.3.2 IID Water Service Area and AAC

Approximately 98 percent of IID's water entitlement is delivered to agricultural users. That sector is where IID is directing its conservation programs. Programs may include, but are not limited to, canal lining, changes in delivery hours, non-leak gates, system automation, and water-efficient on-farm management. The Proposed Project is not growth inducing as it would require IID to continue to provide service to both agricultural and urban clients from a reduced water supply (CVWD et al. 2002).

Growth and Water Demand. The IID water service area is currently undergoing steady growth in excess of the overall state growth rate. Projections, based on the continued availability of water, indicate that the population of the county will increase by 96 percent over the next 20 years to approximately 280,000 persons (SCAG 1999).

Water conserved by these users would not be replaced by other sources. IID would continue to provide water services to both agricultural and urban clients from a smaller water supply. Because the Proposed Project would reduce the water supply delivered to the IID water service area, it would not contribute to an increase in population; hence, no growth-inducing impacts would occur. Other than the lining of canals and installation of on-farm and water delivery system conservation measures, the Proposed Project would not require construction of facilities within the IID water service area. Further, the construction of facilities for implementation of the Proposed Project would be for the purpose of more efficient delivery of agricultural water, not new development (CVWD et al. 2002).

Water Supplies Without the Proposed Project. If the Proposed Project is not implemented, IID would continue the conservation program begun under its 1989 agreement with MWD and transfer water under that separate agreement.

5.2.3.3 Salton Sea

Implementation of the Proposed Project would reduce the elevation of the Salton Sea and increase the Sea's salinity. Such changes could indirectly result in a decrease in population and/or housing growth in the communities surrounding the Sea as recreational resources associated with the Salton Sea would be adversely impacted (see Section 3.6, Recreation).

5.2.3.4 SDCWA Service Area

The Proposed Project would not increase the amount of water delivered to southern California. Rather, it would reallocate the existing water supply to ensure drought reliability of that supply. Improvements in drought reliability would not increase the average annual quantity of water imported by SDCWA. The Proposed Project would not alter the capacity of MWD's CRA, nor would it entail any expansion of SDCWA's existing water delivery and storage systems. Therefore, the Proposed Project would not have the potential to induce or deter greater economic development or population growth because it would not modify any future increases of water supply that have already been planned and approved. Overall, the Proposed Project and the QSA would assist in the reduction of the overall historic water supply diverted from the Colorado River to southern California.

Growth and Water Demand. Projected increases in population in the San Diego County would require substantial investments in new public facilities and infrastructure over the next decades, including, among other things, roads and transportation facilities, water and sewer treatment facilities, fire and police stations, and schools. The Proposed Project would not involve any construction in the SDCWA service area, such as new water pipelines or aqueducts that would facilitate population growth or open undeveloped areas to construction.

Year 2000 water demand within the SDCWA service area was approximately 670 KAF. Based on SANDAG population projections, the SDCWA estimates that water demand will increase to approximately 813 KAF per year by 2020. Projected future supply would match the year 2020 demand (SDCWA 2000). The Proposed Project would not change the assumptions upon which SANDAG has based its population projections for the region.

Local Land Use Decision-making Authority. The California Legislature has established a careful balance that preserves, in local governments, the authority to plan and regulate land use while simultaneously requiring water agencies to assist local governments by compiling and providing them information necessary to make informed land use decisions. Therefore, local governments are ultimately responsible for land use decisions, and the role of water agencies in land use planning is limited to advising local governments concerning the availability of water within their respective districts. Any development projects that occur during and after implementation of the Proposed Project would still require permits and approvals from cities and counties with such authority.

In addition, the planning goals, policies, and decisions that are embodied in general plans, community plans, and related land use regulations, as well as in SDCWA's Water Resources Plan (SDCWA 2000a), do not assume significant seasonal or year-to-year variability in the water supply. Rather, they are predicated on an assumed consistency in water quantity and quality. All current and pending San Diego regional water system improvement projects were designed to meet the demand figures suggested by such plans and were reviewed pursuant to CEQA prior to approval. The Proposed Project would not modify the growth projections that these existing regional plans encompass nor would it alter the approved water system improvement projects, but it would improve the reliability of SDCWA's water supply by elevating SDCWA's priority for Colorado River allocations during times of shortage.

Water Supplies Absent the Proposed Project. If the Proposed Project is not implemented, SDCWA would rely upon continued delivery of its share of imported water from MWD, water transfers, recycling (including wastewater treatment), groundwater supplies (and associated treatment facilities), and seawater desalination to address the shortfall. As described in Section 2, SDCWA entered into an agreement for IID to transfer conserved water to SDCWA in 1998. This agreement has been incorporated into the QSA, but if the QSA does not proceed, SDCWA and IID would pursue their transfer agreement as a separate project. The means of delivering the transfer water to the SDCWA service area has been identified in the Exchange Agreement between SDCWA and MWD. However, implementation of the Exchange Agreement is subject to the satisfaction of certain conditions, some of which would be satisfied under the QSA. If the QSA were not implemented, other means would have to be found to satisfy those conditions. In a shortage

condition, it is uncertain what SDCWA's water supplies would be. As a Priority 3a Colorado River source, Proposed Project would provide a more reliable source than MWD imported water (SDCWA 2000).

5.2.3.5 MWD Service Area

The Proposed Project would not be growth inducing because the capacity of the Colorado River Aqueduct is a limiting factor in the delivery of water from the Colorado River to the MWD service area. No changes in historic levels of aqueduct flows or expansion of aqueduct capacity are proposed as part of the QSA. The Proposed Project would maintain the reliability of water supplies to the MWD service area (which includes the SDCWA service area) by establishing Colorado River budgets for IID, CVWD, and MWD.

Growth and Water Demand. As noted earlier, the MWD service area continues to grow in population. The QSA would ensure that the service area continues to receive reliable water supplies even as the amount of water available to California from the Colorado River is reduced. No new delivery facilities are proposed as part of this Project. MWD estimates that water demand within its service area was between 3.3 and 3.9 MAFY during the period of 1990 to 1999 (3.8 MAF in 1999). Projected future demand, based on SCAG population projections, is 4.9 MAF in 2020.

Water Supplies Without the Proposed Project. Without the Proposed Project, MWD has other water supplies by which it may meet the water demands of the service area. These include increased water conservation through implementation of urban water management Best Management Practices; water recycling undertaken by wastewater treatment plants in the region for groundwater recharge, saltwater intrusion barrier, industrial, and irrigation uses; increased storm water conservation through increased levels of groundwater replenishment; enhanced local groundwater recovery (and associated treatment); desalination; regional surface reservoir storage, and water marketing from other sources such as the SWP, (including spot transfers, option transfers, storage transfers, and exchange agreements). Pursuant to its 1996 Integrated Resources Program, MWD has undertaken many of these initiatives under its "preferred resources mix." However, the Integrated Resources Program identified a "local emphasis mix" that would meet future needs without the QSA at a cost of approximately 20 percent more per AF by the year 2020 (MWD 2000).

Separate from the QSA, MWD has a 1989 agreement with IID whereby conserved Colorado River water is made available to MWD. MWD also has agreements with the Semitropic and Arvin-Edison Water Storage Districts in Kern County whereby MWD provides the districts with SWP water during years of plentiful supply and will call in an equivalent amount of groundwater during dry years. MWD is also pursuing conjunctive use/groundwater storage in desert aquifers in California (Cadiz, Hayfield, and Chuckwalla) and Arizona (Arizona Water Bank) where it would bank Colorado River water in times of available supply (MWD 2000).

5.2.3.6 CVWD Service Area

CVWD will receive additional water for the sole purpose of offsetting the existing overdraft of its groundwater basins. To the extent that increased water supply reliability may be a factor influencing growth, the Proposed Project would not be growth inducing because these supplies will be used to improve the Coachella Valley's ongoing groundwater

overdraft condition. In 1999 the overdraft was estimated to be approximately 136 KAFY. Water transfers under the QSA would result in changes in water deliveries to CVWD of up to 155 KAFY. This additional water as a result of the Proposed Project will be used solely to offset the valley's existing groundwater overdraft.

Growth and Water Demand. The Coachella Valley, particularly in existing cities, has shown the same steady growth as all of southern California. Coachella Valley water demand was estimated to be approximately 669 KAF in 1999. Demand, based on SCAG/CVAG population projections extrapolated by CVWD, is projected to grow to approximately 891 KAF by 2035. The projected available water supply without the Proposed Project is estimated to be approximately 890.6 KAF by 2035. Providing this amount of water without outside supplementation would increase the level of groundwater overdraft to approximately 166.7 KAFY (CVWD 2000b). Implementation of the Proposed Project would provide the Valley with a reliable supply of water for groundwater recharge while avoiding the chronic groundwater overdraft that currently exists. Because CVWD would manage water resources so as to offset a groundwater overdraft, the Proposed Project would not have growth-inducing impacts within the CVWD service area. The water supply that would result from the Proposed Project is considered in more detail in the draft Coachella Valley Water Management Plan prepared by CVWD, the specific purpose of which is to address and reduce groundwater overdraft.

Water Supplies Without the Proposed Project. CVWD will undertake efforts to reduce its dependence on groundwater whether the Proposed Project is implemented or not. CVWD has other sources of water available that would support the region's projected growth in the absence of the Proposed Project. As described in the draft Coachella Valley Water Management Plan, CVWD would undertake the projects described below, proceed with intensified efforts in water recycling (including both wastewater and agricultural run off), increase conservation (including golf course, agriculture, and urban programs), and pursue additional water under the QSA and from the SWP in the event that the Proposed Project is not implemented. These projects are identified in the interim *2000 Urban Water Master Plan* that CVWD has filed with DWR pending completion of the Coachella Valley Water Management Plan. Conceptual projects described in the draft Coachella Valley Water Management Plan include:

- Future construction of a 10-mgd desalination plant that would treat agricultural drain water for reuse in irrigation.
- Future expansion of recycled wastewater; future pumping stations and pipelines to serve Upper Valley golf courses and eliminate their groundwater pumping.
- Future construction of conveyance facilities to serve agricultural uses to eliminate groundwater pumping.
- Future improvements related to converting municipal users in the Lower Valley from groundwater to canal water supplies.
- Construction of new groundwater recharge facilities to serve the Lower Valley.

The Coachella Valley Water Management Plan PEIR (release pending) analyzes the potential impacts of these activities.

5.3 Applicable Regulations, Policies, and Required Permits

In compliance with NEPA and CEQA, this EIR/EIS is intended to provide decision-makers and the public with information regarding the environmental effects associated with the proposed action. In addition to NEPA and CEQA, there are a number of other environmental laws, rules, and regulations that may be applicable to actions taken as part of implementation of the Proposed Project. Compliance with environmental statutes that are applicable to the Proposed Project is discussed below.

5.3.1 Federal Regulations and Permits

- **Federal Endangered Species Act (ESA) of 1973, (16 USC §§1531 *et seq.*; 50 Code of Federal Regulations [CFR] Part 402).** In August 2000, Reclamation transmitted a BA to USFWS, and requested formal consultation for the IA water transfers for up to 400 KAFY as well as adoption of Interim Surplus Guidelines. The USFWS issued a final BO in January 2001 (a non-jeopardy opinion with reasonable and prudent measures for incidental take). These documents are included in an appendix in the IA EIS. The biological conservation measures that were developed by Reclamation and modified by USFWS to mitigate the impacts of the Proposed Project on the LCR are included as part of the Proposed Project in this EIR/EIS and as part of the proposed action in the Draft IA EIS. Reclamation's implementation of the IA encompasses the Proposed Project's effects on the LCR. Thus, the BO covered impacts on the LCR attributable to the Proposed Project and provides ESA compliance for the LCR subregion.

As part of the Proposed Project, IID has prepared an HCP to support its application for an incidental take permit under Section 10 of the ESA. Pursuant to the ESA, the USFWS will conduct an internal Section 7 consultation on the effects of issuance of the incidental take permit to IID on federally listed species. Issuance of the incidental take permit by USFWS and the accompanying BO resulting from the internal Section 7 consultation will provide ESA compliance for effects of the Proposed Project on federally listed species in the IID water service area and AAC and Salton Sea.

- **Migratory Bird Treaty Act of 1918 (16 USC 703-712; 50 CFR 10).** The Migratory Bird Treaty Act makes it unlawful to pursue, hunt, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties between the US and Great Britain, United Mexican States, Japan, and the Union of Soviet States. As with the federal ESA, the act also authorizes the Secretary of the Interior to issue permits for take. The procedures for securing such permits are found in CFR Title 50, together with a list of the migratory birds covered by the act. The USFWS has determined that an incidental take permit issued under Section 10 of the ESA also constitutes a Special Purpose Permit under 50 CFR 21.27 for migratory birds that are listed under the ESA. For unlisted migratory bird species, the incidental take permit would serve as a Special Purpose Permit should a covered species become listed in the future. USFWS has determined that take of listed migratory bird species allowed under an incidental take permit will not be in violation of the Migratory Bird Treaty Act of 1918 (USFWS 1996).
- **Fish and Wildlife Coordination Act of 1958 (16 USC 661-667[e]).** Consultation with USFWS and state fish and wildlife agencies is required when the "waters of any stream

or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted...or otherwise controlled or modified” by an agency under a federal permit or license. This consultation is intended both to promote the conservation of wildlife resources by preventing loss of or damage to wildlife resources, and to provide for the development and improvement of wildlife resources in connection with water projects. IID has worked closely with USFWS and CDFG in developing the HCP, which is part of the Proposed Project, covering the IID water service area and AAC and Salton Sea. As a permitting agency for the incidental take permit, USFWS is a cooperating agency with Reclamation for NEPA review of the Proposed Project. Similarly, CDFG is a responsible agency for CEQA review for the Proposed Project. The involvement and responsibilities of these two agencies in the HCP and environmental review processes ensure that the intent of the Fish and Wildlife Coordination Act is fully addressed.

- **Executive Order 11990 - Protection of Wetlands, 1977.** The purpose of the Protection of Wetlands Executive Order is to minimize the destruction or degradation of wetlands and avoid new construction in wetlands wherever a reasonable alternative exists. The Proposed Project would not impact jurisdictional wetlands but could adversely affect marsh-like habitats that perform similar functions. Implementation of the HCP, which is part of the Proposed Project, would mitigate adverse effects to marsh-like habitats in the Project region of influence resulting from the Proposed Project.
- **National Historic Preservation Act of 1966, as amended.** Federally funded actions that have the potential to affect historic properties are subject to Section 106 of the NHPA. Section 101(d)(6)(A) of the NHPA allows properties of traditional religious and cultural importance to a tribe to be determined eligible for inclusion in the National Register of Historic Places (NRHP). Under this act, federal agencies are required to identify, manage, and nominate cultural resources affected by federal actions to the NRHP. As described in the IA EIS (Reclamation 2002), the effects of the Proposed Project as a result of the federal action of changing the point of diversion of Colorado River water from its current point of diversion at Imperial Dam upstream to Parker Dam will best be considered within the broader framework provided by the Section 110 consultation effort it has committed to conducting under the Interim Surplus Guidelines; this effort covers all activities involved in its on-going operation of the LCR. Compliance with NHPA is further discussed in Section 3.8, Cultural Resources.
- **American Indian Religious Freedom Act of 1978.** The American Indian Religious Freedom Act establishes as US policy protection and preservation for American Indians of their inherent right to freely believe, express, and practice their traditional religions, which includes, but is not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites. Federal agencies are required to make a good faith effort to learn about Indian religious practices, consult with Indian leaders and religious practitioners and consider any adverse impacts on Indian religious practices during decisions making. Consultation with Indian Tribes about the potential affects of the Proposed Project was conducted by USFWS (see Section 1.8 in Section 1).

- **Native American Graves Protection and Repatriation Act of 1990.** This act provides for the repatriation of human remains and funerary items to identified Native American descendants. If human remains are discovered on federal lands, a 30-day delay in project work activities is required. The Proposed Project includes measures to avoid adverse affects on human remains and funerary items.
- **Executive Order 13007 – Indian Sacred Sites on Federal Land, 1996.** This order requires that to the extent practical and as permitted by law, federal agencies with statutory or administrative responsibility for management of federal lands shall accommodate access to Indian sacred sites for ceremonial use by Indian religious practitioners and also avoid adversely affecting these sites. When possible, federal agencies must also maintain the confidentiality of these sites. The Proposed Project will not affect Indian Sacred Sites.
- **Farmland Protection Policy Act of 1981.** This act is intended to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses. The act also requires these programs to be compatible with state, local, and private efforts to protect farmland. Under certain circumstances, the Proposed Project would result in the conversion of farmland to nonagricultural uses. The only way to avoid or minimize this impact is to prohibit the use of permanent fallowing under the Proposed Project.
- **Clean Water Act (CWA) (33 USC §§1344) of 1977, as amended.** The primary objective of this act is to restore and maintain the integrity of the nation's waters. Established goals to meet this objective are to: (1) eliminate the discharge of pollutants into the nation's waters; and (2) achieve water quality levels for recreational purposes. CWA provides a comprehensive framework of standards to address water quality. Specific applicable environmental permit regulations dictated by the CWA include Section 401, Water Quality Certification; Section 402, NPDES permit program; and Section 404, Dredge and Fill permits for waters of the US. Construction activities associated with implementation of the Proposed Project, including implementation of biological conservation measures and water conservation measures, may require a permit under Section 404, depending on the location and nature of the construction.
- **National Toxics Rule and California Toxics Rule (40 CFR 131.36 and 131.37).** These Rules established ambient water quality criteria for aquatic life and human health as they apply to inland surface waters such as the Salton Sea. Construction activities associated with implementation of the Proposed Project, including implementation of biological conservation measures and water conservation measures, may require a permit under Section 401, depending on the location and nature of the construction. Additional water quality certification may be needed for discharge of any materials to surface waters of California.
- **Clean Air Act (CAA) of 1970, as amended.** This act established federal standards for air pollutants. The act is designed to improve air quality in areas that do not meet the NAAQS and to prevent significant deterioration in areas where air quality exceeds those standards. To be conservative, this analysis concludes that windblown dust from exposed Salton Sea shoreline would result in potentially significant air quality impacts. This impact could be mitigated by implementing the Salton Sea Habitat Conservation Strategy component.

- **Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994.** This order requires federal agencies to develop strategies to ensure that the adverse impacts of their programs do not disproportionately affect minority and low-income populations. The Secretary has directed all DOI agencies to consider the effects of program, policy, and activities on minority and low-income populations. The Proposed Project could affect farm laborers in Imperial County by allowing activities, which would reduce the demand for farm labor in some areas. Although the proposed project would not disproportionately affect a specific community or area, farm laborers are a predominantly minority and low-income population group.

5.3.2 State Regulations and Permits

- **California Endangered Species Act (California Fish and Game Code §§2050 et seq.).** CESA is part of the California Fish and Game Code (Fish and Game Code). As a guide to state agencies, Section 2053 of the Fish and Game Code states that, “. . . it is the policy of the state that state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives consistent with conserving the species or its habitat which would prevent jeopardy.” Section 2080 of the CESA prohibits import, export, take, possession, purchase, or sale of listed plant and animal species except as otherwise provided in other provisions of the CESA or the Fish and Game Code. Take of state-listed species may be authorized under CESA Section 2081.

As part of the Proposed Project, IID has prepared an HCP that will support incidental take authorization under Section 2081 for take of state listed and unlisted species in the IID water service area and AAC and Salton Sea. In addition, IID is pursuing authorization under Section 2081 for incidental take of state-listed species that inhabit the LCR and could be affected by the change in the point of diversion of water conserved by IID and transferred to SDCWA or MWD.

- **California Fully Protected Wildlife Species Provisions (California Fish and Game Code §§3511, 4700, 5050, and 5515).** These provisions prohibit the taking of certain species of birds, mammals, amphibians, and fish designated as fully protected. A mechanism for ensuring Project compliance with this regulation is currently being pursued.
- **Fish and Wildlife Protection and Conservation: Streambed Alteration Agreements (California Fish and Game Code §1600).** Section 1600 of the Fish and Game Code regulates the alteration of the bed, bank, or channel of a stream, river, or lake, including dry washes. Activities that could affect jurisdictional areas can be authorized through issuance of a Streambed Alteration Agreement (SAA). Site-specific implementation of mitigation measures and the HCP would consider potential impacts to streambed features and a permit would be obtained from CDFG if necessary.
- **California Porter-Cologne Water Quality Control Act (CCR Title 23).** This act is California’s primary state law protecting California’s waters. “Porter-Cologne” (Division

7 of the California Water Code) gives the State and Regional Boards the authority to regulate discharges of waste, including dredged or fill material, to any waters of the State. While California has traditionally relied upon the Corps' Clean Water Act Section 404 process and California's Section 401 authority to ensure that discharges of dredged and fill materials complied with the State's water quality standards, it has independent authority under the California Water Code. Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the *waters of the state* to file a report of discharge (an application for waste discharge requirements." (Water Code Section 13260(a)(1).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code Section 13050(3).)

- **California Clean Air Act of 1988.** This act requires each local air district in the state to prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. To be conservative, this analysis concludes that windblown dust from exposed Salton Sea shoreline would result in potentially significant air quality impacts. These impacts could be mitigated by implementing the HCP.
- **California Safe Drinking Water Act (CCR Title 22).** This act provides primary and secondary MCLs for drinking water sources. Compliance with this act is discussed in Section 3.1, Hydrology and Water Quality.

5.3.3 Local Regulations and Permits

- **Air Quality Regulations.** Local air districts provide rules for implementing federal and state air quality objectives within their jurisdictions. Air quality permits from relevant management districts and pollution control districts may be required for the implementation of water conservation measures. To be conservative, this analysis concludes that windblown dust from exposed Salton Sea shoreline would result in potentially significant air quality impacts. These impacts could be mitigated by implementing the HCP. Conformance with local air quality regulations is discussed further in Section 3.7, Air Quality.

5.4 Significant Unavoidable Impacts

Under the State CEQA Guidelines (§15126.2[b]), an EIR must describe any significant impacts, including those that can be mitigated but not reduced to a level of insignificance. According to the analysis conducted in Section 3 in this EIR/EIS, with the implementation of identified mitigation measures, the Proposed Project would result in the following significant, unavoidable impacts:

5.4.1 Hydrology and Water Quality

WQ-2: Increased selenium concentration in IID surface drain discharges to the Alamo River. Selenium concentration to 9.25 µg/L in the IID surface drain discharge to the Alamo River exceeding water quality criteria of 5 µg/L.

WQ-4: Increase in selenium concentration in the Alamo River at the outlet to the Salton Sea.

Selenium concentration to 7.86 µg/L in Alamo River at the outlet to the Sea exceeding water quality criteria of 5 µg/L.

WQ-5: Increase in selenium concentration in the IID surface drain discharge to the New River.

Selenium concentration to 8.30 µg/L in the IID surface drain discharge to the New River exceeding water quality criteria of 5 µg/L.

WQ-7: Increase in selenium concentrations in the IID surface drains discharging directly to the Salton Sea.

Selenium concentration to 6.69 µg/L in the IID surface drain discharge to the Salton Sea exceeding water quality criteria of 5 µg/L.

5.4.2 Agricultural Resources

AR-1: Reclassification of up to 50,000 acres of Prime Farmland or Farmland of Statewide Importance.

If fallowing were used as a conservation measure, it could be either rotational or non-rotational fallowing, or a combination of the two. The worst-case impact of the Proposed Project would be the non-rotational fallowing of up to about 50,000 acres of land. This represents up to about 11 percent of the total net acreage in agricultural production within the IID water service area. Assuming all acreage included in the water conservation program was fallowed on a non-rotational basis, this would represent a significant, unavoidable impact to the agricultural resources of the IID water service area.

HCP-IID-AR-2 Conversion of agricultural lands from implementation of the HCP. The worst-case impacts to agricultural resources from the implementation of the HCP-IID, which is part of the Proposed Project, would result in approximately 700 acres of agricultural lands converted to marsh habitat, native forest habitat, or new drainage channels to the Salton Sea. This represents less than 0.5 percent of the average annual net acreage in agricultural production within the IID water service area. However, if these lands are located on Prime Farmland or Farmland of Statewide Importance, implementation of the HCP IID would result in a significant, unavoidable impact to agricultural resources.

5.4.3 Air Quality

AQ-7: Indirect air quality impacts due to the potential for windblown dust from exposed shoreline.

The predicted decrease in Sea level and increase in exposed area would increase the potential for dust suspension after year 2035. The proposed mitigation measures for the Proposed Project's air quality impacts related to PM₁₀ emissions in the SSAB (see Section 3.7, Air Quality) are potentially sufficient to avoid or suppress PM₁₀ emissions to less-than-significant levels. However, a level of uncertainty remains regarding whether short-term and long-term impacts can indeed be mitigated to a less-than-significant level. Therefore, to be conservative, the EIR/EIS concludes that the impacts remain potentially significant and unmitigable.

In accordance with PRC §21081.6 and State CEQA Guidelines §15091(d), IID would prepare a mitigation and monitoring plan stating the impact, mitigation, and who would monitor and report that the mitigation has been implemented for all impacts determined to be significant. This mitigation and monitoring plan would be developed prior to IID approving the Proposed Project.

5.5 Relationship between Short-term Uses of the Environment and Long-term Productivity

Construction of on-farm irrigation and water delivery system improvements to conserve water for transfer or to comply with the IOP, would have short-term effects on the environment. These effects include such things as construction-related air pollutant emissions and noise and temporary disturbances to biological communities. However, most of these short-term impacts would be mitigated to less-than-significant levels. For example, if the water delivery system improvements removed vegetation, the impact would be mitigated by creating replacement habitat elsewhere. If the construction of an on-farm irrigation system improvement would erode soil, or create noise, BMPs would be implemented to prevent significant erosion-related impacts and control noise.

Implementation of certain aspects of the HCP also would have short-term construction-related effects, such as air pollutant emissions, noise, and temporary disturbances to biological communities. However, the long-term benefits of the HCP would be substantial since the amount and quality of habitat for federally listed species in the IID water service area would be improved and increased. Given the existing habitat quality in the IID water service area, and the projected reduction in fish abundance at the Salton Sea in the absence of the Proposed Project, IID's commitment to an HCP would provide long-term benefits to wildlife in the IID water service area and Salton Sea that otherwise would not have occurred.

The operation of the Proposed Project could have long-term effects on resources such as air quality at the Salton Sea, water quality in the drains and New and Alamo River and, if permanent fallowing is implemented, on agricultural resources. However, implementation of the Project would greatly contribute to California's ability to implement the California Plan and increase the predictability of water use for water diverted from the Colorado River by the participating agencies in California. This predictability is expected to have a stabilizing effect on the use of water in the region by ensuring that all parties stay within their annual allocations thus ensuring long-term productivity (Reclamation 2002).

5.6 Irreversible and Irretrievable Commitments of Resources

5.6.1 Irreversible Commitments of Resources

Irreversible commitments are decisions affecting non-renewable resources. Such decisions are considered irreversible because their implementation would affect a resource to the point that renewal can occur only over a long period of time or at a great expense, or because they would cause the resource to be destroyed or removed. The term irreversible describes the loss of future options and applies to the effects of using nonrenewable resources or resources that are renewable only over a long period of time.

Implementation of the Proposed Project would result in the commitment of resources during the 75-year duration of the Project. The primary area that would experience the most likely irreversible change is the Salton Sea and the lands adjacent to the Sea. With implementation of the water conservation and transfer component of the Proposed Project and/or Alternative, and with the Salton Sea Habitat Conservation Strategy, the surface

elevation of the Sea would drop and salinity would increase more rapidly than under the No Project Alternative. Such environmental effects would adversely affect the elevation of the Salton Sea and associated resources irreversibly.

The Proposed Project and Alternatives would also lower the elevation of the LCR, which would result in an adverse effect on biological communities and power production along the LCR. This change would be irreversible because of the legal considerations associated with the IID/SDCWA Transfer Agreement and the QSA, which are described in detail in Section 2. Thus, the changes in biological and power resources along the LCR may also be irreversible, although the biological resources changes are considered mitigable.

The Proposed Project would provide SDCWA with a more reliable supply of water for its service area. The Proposed Project would not alter the capacity of MWD's CRA, nor would it entail any expansion of SDCWA's existing water delivery and storage systems. Therefore, the Proposed Project would not have the potential to induce or deter greater economic development or population growth because it would not modify any future increases of water supply that have already been planned and approved. Overall, the Proposed Project and the QSA would assist in the reduction of the overall historic water supply diverted from the Colorado River to southern California.

Implementation of the biological conservation measures in the BO would result in the monitoring, improvement, and/or creation of habitat along the LCR. These activities would have a positive ecological effect along the LCR, although any creation of new habitat could be considered irreversible.

5.6.2 Irretrievable Commitments of Resources

An irretrievable commitment of natural resources means a loss of production or use of resources as a result of a decision. It represents opportunities foregone for the period of time that a resource cannot be used. "Irretrievable" also refers to the permanent loss of a resource, including production, harvest, or use of natural resources.

Certain aspects of the Proposed Project would result in the irretrievable commitment of resources, such as the construction associated with the water conservation program because construction activities would consume fossil fuels, which are finite sources of energy that cannot be regenerated. As stated above, the Salton Sea's elevation decline would occur under the No Project Alternative with or without implementation of the Project. The Project would, however, increase the amount of elevation decline.

Additionally agricultural lands that are converted for habitat restoration or non-rotational fallowing could be considered an irretrievable commitment of a resource.

A similar commitment of resources during construction of the water conservation program would be associated with construction of habitat areas with the adoption of biological conservation measures. Implementation of the cap on IID's Colorado River water diversions or compliance with the IOP would not result in an irretrievable commitment of resources.