SECTION 4.0

Errata

4.1 Introduction

The following corrections and/or clarifications have been made to the EIR text. These corrections include minor corrections made by the EIR authors to improve writing clarity, grammar, and consistency; corrections or clarifications requested by a specific response to comments; or staff-initiated text changes to update information presented in the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The text revisions are organized by the chapter and page number that appear in the Draft EIR/EIS. ~~Deleted text~~ presented in this section indicates text that has been deleted from the EIR. Text that has been added to this EIR is presented as double underlined. Text revisions are itemized in Section 4.2 (below). Tables included in Section 4.2 that contain no change bar in the margin have been substantially revised and, therefore, replaced in their entirety. Figure replacements are listed in Section 4.3.

4.2 Text Revisions

A detailed list of Appendices for the Draft EIR/EIS has been added to the end of the Table of Contents:

Table of Contents

Appendix G—Socioeconomics

EXECUTIVE SUMMARY

Introduction, third paragraph on page ES-1:

If the QSA is executed, it would be implemented through Reclamation's draft Implementation Agreement (IA), which would commit the Secretary of the DOI (Secretary) to make Colorado River water deliveries in accordance with the QSA terms and conditions. Reclamation is preparing a Draft EIS for the IA; this EIS will also include analysis of Reclamation's Inadvertent Overrun and Payback Policy (IOP), which would establish requirements for payback of inadvertent overuse of Colorado River water. The IOP has been modified to indicate that Mexico is not included. The IOP is a condition precedent to the execution of the IA and QSA and must be in place by the time these agreements go into effect. The Draft IA EIS also covers implementation of biological conservation measures to offset impacts of the Proposed Project on federally listed fish and wildlife species and their critical habitats in the historic floodplain of the LCR.

Project Description, second bullet on page ES-3:

- **Salton Sea:** The Salton Sea and its existing shoreline at the time that the NOP for the Draft EIR/EIS was published, in addition to a ~~back to~~ 0.5 ~~feet~~ mile setback around the Sea.

Project Overview, subsection *QSA Implementation*, sixth paragraph on page ES-4:

The HCP covers 96 listed and unlisted species under ESA and CESA and addresses the activities necessary to implement the Proposed Project within the IID water service area as well as IID's ongoing operation and maintenance (O&M) activities. The HCP includes conservation strategies for the five main habitats used by covered species in the HCP geographic area, including drain habitat, tamarisk scrub habitat, agricultural fields, the Salton Sea, and desert habitat. In addition, the HCP includes species-specific conservation strategies for the burrowing owl, the desert pupfish, and bats.

The portion of the HCP that addresses impacts in the IID water service area, described as HCP (IID Water Service Area Portion), includes conservation strategies for the following habitats and species: Tamarisk Scrub, Drain Habitat, Desert Habitat, Agricultural Habitat, Desert Pupfish Habitat, Burrowing Owl Habitat, and Razorback Sucker Habitat. The portion of the HCP that addresses impacts in the Salton Sea subregion is described as the Salton Sea Habitat Conservation Strategy (formerly known as HCP Approach 2). Under the Salton Sea Habitat Conservation Strategy, IID would discharge water to the Salton Sea for the purpose of mitigating the impact of the Proposed Project on salinity in the Salton Sea and avoiding and minimizing the indirect effects on fish and piscivorous birds. The amount of water used to mitigate Project effects on salinity and the number of years over which that water would be discharged to the Sea will be based on the projection of when salinity in the Sea would reach a level at which tilapia can no longer reproduce. By maintaining suitable salinity conditions in the Sea, IID would ensure continued

persistence of fish (and therefore piscivorous birds) for a period consistent with that projected under the Baseline. Under this approach, piscivorous birds would be represented at the Salton Sea for the same period of time as the Baseline, with or without the Project.

Environmentally Superior Alternative, fifth paragraph on page ES-12:

Chapter 4, Alternatives Comparison, includes a detailed analysis and comparison of the Proposed Project with each of the alternatives. As required by CEQA this Chapter also identifies the environmentally superior alternative. CEQA Guidelines (Section 15126.6(e)2), Consideration and Discussion of Alternatives to the Proposed Project, state, "If the environmentally superior alternative is the No Project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." For this Project, Alternative ~~2~~1, the No Project Alternative, is environmentally superior to the others; therefore, the following discussion regarding the next environmental superior alternative is provided.

~~Determination of the environmentally superior alternative is somewhat driven by the selection of an HCP approach for the Salton Sea. Implementation of HCP (Salton Sea Portion) Approach 2 would avoid significant unavoidable impacts on recreation resources and air quality by maintaining Baseline flows to the Salton Sea. *Approach 2 would minimize but not avoid significant, unavoidable impacts on water quality and it would not avoid or minimize impacts on agricultural resources.* To minimize impacts to water quality (selenium impacts to the drains) and impacts on agricultural resources (conversion of prime farmland and farmland of statewide importance), the amount of water conserved and the method of conservation is the determining factor. Alternative 2, 130 KAFY with on-farm irrigation system improvements only along with HCP Approach 2 would avoid recreation, air quality, and agricultural resources impact and would minimize water quality impacts and is therefore the environmentally superior alternative. However, the Proposed Project includes the flexibility to be implemented with the same methods and quantities as Alternative 2 and so it could also, if implemented this manner, be considered environmentally superior.~~

For the Proposed Project and each of the Project Alternatives, the Salton Sea Habitat Conservation Strategy would effectively avoid the significant recreation impact to the Salton Sea sportfishery and would delay the potentially significant unavoidable air quality impact of dust emissions from the exposed Salton Sea shoreline until 2030 by providing mitigation water to the Sea at a level equal to or greater than the Baseline. After 2030, the magnitude of impacts is driven by the extent to which the Sea would decline by the end of the Project term (2077), as a result of the Project. Elevation decline is driven first by the method of conservation and secondly by the amount of conservation. Alternatives that utilize fallowing have the least impact on elevation. Alternative 2 (130 KAFY – On-farm irrigation improvements only), is the only alternative which does not include the use of fallowing to generate the conserved water for transfer. The 2077 elevation for Alternative 2 with implementation of the Salton Sea Habitat Conservation Strategy is anticipated to be about –242 msl. The Proposed Project, if implemented using fallowing to conserve the transferred water, would have a projected Sea elevation of –240 msl in 2077 as

would Alternative 4. Alternative 3 (230 KAFY – All Conservation Measures), if implemented using fallowing to conserve the transferred water, would have an projected Salton Sea elevation in 2077 of between –235 and –240 msl.

Implementation of the Salton Sea Habitat Conservation Strategy would not avoid significant, unavoidable impacts on water quality (selenium impacts to the drains and the New and Alamo Rivers) or to agricultural resources (conversion of prime farmland and farmland of statewide importance or conversion of other agricultural lands to non-agricultural use). None of the alternatives are able to avoid water quality impacts, however, Alternative 2 would reduce them compared to the other Alternatives. To minimize impacts on agricultural resources, the method of conservation is the determining factor. Use of fallowing has the greatest impact on agricultural resources, therefore, alternatives with the greatest amount of fallowing have the greatest impact on agricultural resources. With implementation of the Salton Sea Habitat Conservation Strategy the Proposed Project and Alternatives 3 and 4 would include fallowing.

Therefore, the environmentally superior alternative would be one that minimizes impacts to the elevation of the Sea while also minimizing the amount of water conserved to reduce impacts to drains and minimizing the amount of conservation by non-rotational fallowing to reduce impacts to agricultural resources. Alternative 2, because it can only be implemented with on-farm irrigation system improvements would result in greater impacts to the elevation of the Salton Sea by 2077.

Alternative 3, (230 KAFY - All Conservation Measures) , if implemented using fallowing, would result in the least amount of elevation reduction to the Salton Sea and would reduce water quality impacts to the IID drains and the Alamo River and impacts to agricultural resources compared to the Proposed Project and Alternative 4 (300 KAFY), and is therefore the environmentally superior alternative. Although socioeconomic impacts are not a consideration in the determination of the environmentally superior alternative under CEQA, it should be noted that Alternatives that rely on fallowing for conservation would result in greater socioeconomic effects than Alternatives that do not.

Projects Impacts Summary, Table ES-1 on page ES-17:

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
3.1 Hydrology and Water Quality						
WQ-2: Increased selenium concentration in IID surface drain discharges to the Alamo River: Selenium concentration to 9.25 µ/L in the IID surface drain discharge to the Alamo River exceeding water quality criteria of 5 µ/L.	**Mitigation WQ-2:** No reasonable mitigation is available to reduce the concentration of selenium in the drains. The HCP IID Water Service Area Portion includes habitat replacement to mitigate the biological impacts resulting from the increased selenium; however, the selenium concentration itself would not be reduced by the HCP. (See *Master Response 3.1 Hydrology—Selenium Mitigation* in this Final EIR/EIS.)	Significant and unavoidable.	Baseline selenium concentration in the IID surface drain discharge to the Alamo River of 6.32 µ/L.	Same as WQ-2 except selenium concentrations to 6.91 µ/L in the IID surface drain discharge to the Alamo River.	Same as WQ-2 except selenium concentrations to 8.88 µ/L in the IID surface drain discharge to the Alamo River.	Beneficial impact: selenium concentration decreases to 6.10 µ/L in the IID surface drain discharge to the Alamo River.
WQ-4: Increase in selenium concentration in the Alamo River at the outlet to the Salton Sea: Selenium concentration to 7.86 µ/L in Alamo River at the outlet to the Sea exceeding water quality criteria of 5 µ/L.	None available.	Significant and unavoidable.	Baseline selenium concentrations in Alamo River at the Outlet to the Sea of 6.25 µ/L.	Less than significant selenium concentrations maintained at 6.25 µ/L in Alamo River at the outlet to the Sea.	Same as WQ-4 except selenium concentrations to 7.39 µ/L in Alamo River at the outlet to the Sea.	Beneficial impact: selenium concentration decreases to 6.13 µ/L in Alamo River at the outlet to the Sea.
WQ-5: Increase in selenium concentration in the IID surface drain discharge to the New River: Selenium concentration to 8.30 µ/L in the IID Surface drain discharge to the New River exceeding water quality criteria of 5 µ/L.	**Same as Mitigation WQ-2.**	Significant and unavoidable.	Baseline selenium concentration in the IID Surface drain discharge to the New River of 6.51µ/L.	Same as WQ-5 except selenium concentrations to 7.15 µ/L in the IID Surface drain discharge to the New River.	Same as WQ-5 except selenium concentrations to 7.90 µ/L in the IID Surface drain discharge to the New River.	Less than significant impact: Minimal decrease in selenium concentrations to 6.50 µ/L in the IID Surface drain discharge to the New River.

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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.	**Same as Mitigation WQ-2.**	Significant and unavoidable.	Baseline selenium concentration in the IID surface drain discharge to the Salton Sea of 4.80 µg/L.	Same as WQ-7 except selenium concentrations to 5.09 µg/L in the IID surface drain discharge to the Salton Sea.	Same as WQ-7 except selenium concentrations to 6.40 µg/L in the IID surface drain discharge to the Salton Sea.	Beneficial impact: selenium concentration decreases to 4.61 µg/L in the IID surface drain discharge to the Salton Sea.
3.2 Biological Resources						
With implementation of the Salton Sea Habitat Conservation Strategy no significant impacts to biological resources were identified. See Table 3.2-1 in the Draft EIR/EIS for a summary of less than significant impacts.						
3.3 Geology and Soils						
No significant impacts to geology and soils were identified. See Table 3.3-1 in the Draft EIR/EIS for a summary of less than significant impacts.						
3.4 Land Use						
No significant impacts to land use were identified. See Table 3.4-1 in the Draft EIR/EIS for a summary of less than significant impacts.						
3.5 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 rotational or non-rotational or a combination of the two. The worst case impact of the Proposed Project would be the use of 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	**Mitigation Measure AR-1:** The only way to avoid or minimize this impact is to prohibit the use of non-rotational fallowing under the Proposed Project. Otherwise, no mitigation measures have been proposed to avoid or minimize this impact.	Significant and unavoidable.	No permanent conversion of agricultural lands. Baseline of rotational fallowing of about 20,000 acres per year continues.	No impacts.	A3-AR-1: Reclassification of up to 38,300 acres of Prime Farmland or Farmland of Statewide Importance: Significant, unavoidable impact.	A4-AR-1: Reclassification of up to 50,000 acres of Prime Farmland or Farmland of Statewide Importance: Significant, unavoidable impact.

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production within the IID water service area. Assuming the water conservation program was implemented using non- rotational fallowing exclusively, this would represent a significant, unavoidable impact to the agriculture resources of the IID water service area.						
HCP-AR-2 Conversion of agricultural lands from implementation of the HCP: The worst -case impacts to agricultural resources from the implementation of these components of the Proposed HCP 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 Water Service Area Portion) would result in a significant, unavoidable impact to agricultural resources.	**Mitigation Measure HCP-AR-2:** The only way to avoid or minimize this impact is to prohibit the conversion of agricultural lands under the HCP (IID Water Service Area Portion). Otherwise, no mitigation measures have been proposed to avoid or minimize this impact.	Significant and unavoidable.	No permanent conversion of agricultural lands.	Same as HCP-AR-2.	Same as HCP-AR-2.	Same as HCP-AR-2.
3.6 Recreation						
R-7: Reduction in Salton Sea elevation would render boat launching and mooring facilities inoperable: The decline in Salton	**Mitigation Measure R-7:** With implementation of the Salton Sea Habitat Conservation Strategy, the Sea	Less than significant.	Under the No Project Alternative, the Salton Sea is	Similar to Impact R-7.	Similar to Impact R-7	Similar to Impact R-7.

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Sea elevation and surface area as a result of the Proposed Project would impact operational boat launching and mooring facilities that provide access to the Salton Sea for recreational boating. The Sea would recede from boating facilities gradually as inflows decline. This impact is anticipated when the elevation of the Salton Sea reaches –230 msl, which is predicted to occur in 2007. However with implementation of the Salton Sea Habitat Conservation Strategy, the Sea would reach elevation –230 msl in the year 2012.	would reach elevation –230 msl in the year 2012. There would be impacts to the boat launching facilities, so boat launching facilities and access to them must be relocated as the Sea declines to provide ongoing boat launching opportunities. The relocation of these facilities may be temporary and ongoing until the Sea reaches its minimum and stable elevation, at which point permanent facilities must be provided.		projected to reach elevation –230 msl in the year 2010.			
R-8: Reduced sport fishing opportunities:. A reduction in the number of sport fish in the Salton Sea would potentially impact sport-fishing opportunities. Impacts to fisheries, including sport fish and aquatic habitat, potentially would result from an accelerated increase in salinity and declining elevation of the Sea which would result in a decrease in the number of fish that inhabit the Salton Sea, as described in Section 3.2, Biological Resources. Life cycle impacts of key sport fish anticipated to begin in year 2010. However, with implementation of the Salton Sea Habitat Conservation Strategy, this impact would be avoided.	**Mitigation Measure R-8:** Implementation of the Salton Sea Habitat Conservation Plan would allow water to continue to flow to the Sea at a rate equal to or greater than the Baseline. This would avoid impacts to sportfishing by avoiding impacts to the Sea. See Master Response *Recreation – Mitigation for Salton Sea Sport Fishery*.	Less than significant with implementation of the Salton Sea Habitat Conservation Strategy.	Life cycle of fish impacted beginning in year 2015.	Same as R-8.	Same as R-8.	Same as R-8.
R-9: Reduced opportunity for bird watching and waterfowl hunting:	**Mitigation Measure R-9:** With implementation of the Salton Sea Habitat	Less than significant.	Under the No Project	Same as R-9.	Same as R-9.	Same as R-9.

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Many avian species rely on the aquatic resources of the Salton Sea for food and habitat. Increasing salinity at the Sea would potentially have the following results: Decreased food supply for fish-eating birds because the reproductive ability of fish would decline. Increased disease resulting in direct mortality of avian species, as well as a loss of habitat for avian nesting and foraging sites. Details of the biological impacts to birds are described in Section 3.2, Biological Resources, Impacts BR-44, 46, and 47. The effect of the Proposed Project would be to accelerate changes in fish abundance and the subsequent response of piscivorous birds by about 11 years compared to the Baseline. However, with implementation of the Salton Sea Habitat Conservation Strategy, these impacts would be avoided.	Conservation Strategy, impacts to birds as a result of a declining fishery of the Salton Sea would be avoided.		alternative, impacts to fish abundance and thus to piscivorous birds occur in approximately year 2023.			
R-10: Reduction in Salton Sea elevation could impact campgrounds and ancillary facilities: When water levels at the Salton Sea SRA drop to 230 feet below msl, it would be necessary to relocate facilities, such as Varner Harbor and campgrounds, that are now located near the water. It also would be necessary to re-establish existing roads and trails that lead to	**Mitigation Measure R-10:** With implementation of the Salton Sea Habitat Conservation Strategy, the Salton Sea would reach –230 msl in 2012. Therefore, there would be impacts on the camping facilities, so these facilities must be relocated as the Sea declines to provide ongoing camping opportunities. The relocation of these facilities may be temporary and ongoing until the Sea reaches its minimum, stable elevation, at	Less than significant.	Elevation -230 feet msl is reached in year 2010 and the 2077 elevation of the Salton Sea is predicted to be -235 feet msl.	Similar to Impact R-10, but to a lesser extent.	Similar to Impact R-10, but to a lesser extent.	Similar to Impact R-10

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the water, particularly in areas such as Mecca Beach, Sneaker Beach, and Old Camp. Decreasing water levels would expose footings and other remnants of the campgrounds that were covered when the water elevation increased during the late 1970s. These would have to be removed for safety and aesthetic considerations. Implementation of the Proposed Project would result in the elevation of the Salton Sea reaching –230 msl by the year 2007, compared to 2010 under the Baseline, a three-year acceleration. In addition to accelerating the time when campgrounds are stranded from their existing location, the Proposed Project would result in an ultimate elevation of the Sea of approximately –250 compared to -235 under the Baseline. However, with implementation of the Salton Sea Habitat Conservation Strategy the stranding of campgrounds would not be accelerated and the ultimate elevation of the Sea would be –240 msl.	which point permanent facilities must be provided.					
3.7 Air Quality						
AQ-3: Windblown dust from fallowed land: Depending on the amount of land that is fallowed and the way the land is managed before and during fallowing, the potential exists for fugitive dust impacts. On occasion, existing concentrations of PM10 in the IID water service area	**Mitigation Measure AQ-3:** As lands are fallowed, at least one of the following BMPs to minimize PM10 emissions must be implemented. BMPs could include, but are not limited to, the following: Implement conservation-cropping sequences and wind erosion protection measures as outlined by the U.S.	Less than significant.	Continuation of current fallowing of about 20,000 acres per year.	Same as AQ-3 except the maximum number of fallowed acres would be 20,600.	Same as AQ-3 except the maximum number of fallowed acres would be 67,300.	Same as AQ-3.

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violate national and state ambient air quality standards. To be conservative, this analysis concludes that the fugitive windblown dust emissions associated with additional exposed areas due to fallowing would be potentially significant. Up to 84,800 acres could be fallowed for the Proposed Project including conservation for transfer, for the IOP, and for HCP Approach 2.	Department of Agriculture Natural Resources Conservation Service. Apply soil stabilization chemicals to fallowed lands. Re-apply drain water to allow protective vegetation to be established. Reuse irrigation return flows to irrigate windbreaks across blocks of land including many fields to reduce wind fetch and reduce emissions from fallowed, farmed, and other lands within the block.					
HCP2-AQ-6: Windblown dust from fallowing plus emissions due to construction and operation of on-farm and water delivery system conservation measures for Salton Sea Habitat Conservation Strategy (HCP Approach 2) : Implementation of HCP Approach 2 could be accomplished via construction of on-farm or water delivery system improvements or fallowing. It is most likely that this conserved water would be generated via fallowing. However, if conservation measures are constructed, the maximum that would be constructed in 1 year to provide mitigation for the Salton Sea as flows to the Sea are reduced would be measures that would save about 12 KAFY. Construction of measures to conserve 12 KAFY would result in similar impacts in the IID water service area and the AAC to those described for AQ-2 in Section 3.7.4, Impacts and	**Mitigation Measure HCP2-AQ-6:** This impact would be less than significant with implementation of Mitigation Measures AQ-2 and AQ-3. (For AQ-2, see Section 3.7.4, Impacts and Mitigation Measures.)	Less than significant.	Continuation of existing air quality conditions.	Same as HCP2-AQ-6.	Same as HCP2-AQ-6.	Same as HCP2-AQ-6.

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Mitigation Measures. If fallowing is implemented, impacts would be similar to those described under Impact AQ-3.						
AQ-7: Indirect air quality impacts due to the potential for windblown dust from exposed shoreline: The predicted decrease in Sea level of 5 feet and increase in exposed area (an additional 16,000 acres compared to the Baseline) with implementation of the Salton Sea Habitat Conservation Strategy would increase the potential for dust suspension. Spatial variations in sediment characteristics and soil erodibility, temporal variations in wind conditions, and variation in factors contributing to the formation of salt crusts prevent any reasonable quantitative estimate of emissions and associated impacts from the exposed shoreline. Therefore, a qualitative assessment of the potential for dust suspension is provided in this Draft EIR/EIS. To be conservative, this analysis concludes that windblown dust from exposed shoreline may result in significant air quality impacts. (Details provided in Section 3.7, Impact AQ-7.)	**Mitigation Measure AQ-7:** 1) **Restrict Access.** Public access, especially off-highway vehicle access, would be limited, to the extent legally and practicably feasible, to minimize disturbance of natural crusts and soils surfaces in future exposed shoreline areas. 2) **Research and Monitoring.** A research and monitoring program would be implemented incrementally as the Sea recedes. The research phase would focus on development of information to help define the potential for problems to occur in the future as the Sea elevation is reduced slowly over time. 3) **Create or Purchase Offsetting Emission Reduction Credits.** This step would require negotiations with the local air pollution control districts to develop a long-term program for creating or purchasing offsetting PM10 emission reduction credits. Credits would be used to offset emissions caused by the Proposed Project, as determined by monitoring (see measure 2, above). 4) **Direct emission reductions at the Sea.** If sufficient offsetting emission reduction credits are not available or	Significant and unavoidable.	16,000 acres of exposed shoreline predicted for 2077.	Similar to Impact AQ-7, but to a lesser extent.	Similar to Impact AQ-7, but to a lesser extent.	Same as AQ-7.

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	feasible, Step 4 of this mitigation plan would be implemented. It would include either, or a combination of: a) Implementing feasible dust mitigation measures; and/or b) If feasible, supplying water to the Sea to re-wet emissive areas exposed by the Proposed Project, based on the research and monitoring program (step 2 of this plan). Further details on the 4-step mitigation and monitoring plan can be found in Section 3.7, Air Quality.					
3.8 Cultural Resources						
CR-1: Construction of measures from water conservation program: Potential impacts to cultural resources could result because several conservation measures involve ground disturbance. It is difficult to quantify the relative impact of the conservation measures on archaeological sites that might be present. Depending on the nature of the cultural resource, the impact, and the ability to modify construction activities to avoid or minimize the impact, impacts on cultural resources could be significant. (Note that if fallowing is used as the exclusive conservation measure under the Proposed Project, there would be no impacts, and no	**Mitigation Measure CR-1:** Construction of conservation measures can occur anywhere within the IID water service area; therefore, pre-Project surveys have not been conducted. Mitigation measures included in Section 3.8 CR-1 have been designed to provide assurances that if cultural resources are encountered during Project construction or operation, they will be handled appropriately.	Less than significant.	N/A	Same as CR-1, but to a lesser extent.	Same as CR-1, but to a lesser extent.	No impact.

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mitigation measures would be required.)						
CR-2: Construction of conservation measures for IOP compliance: Potential impacts to cultural resources could result from the construction of consrvation measure for IOP compliance for the same reasons discussed above under Impact CR-1. Impacts on cultural resources could be significant.	**Mitigation Measure CR-2:** Construction of conservation measures can occur anywhere within the IID water service area; therefore, pre-Project surveys have not been conducted. The same mitigation measures listed under Mitigation Measure CR-1 would apply to this impact to provide assurances that if cultural resources are encountered during Project construction or operation, they will be handled appropriately.	Less than significant.	N/A	Same as CR-2.	Same as CR-2.	Same as CR-2.
HCP-CR-3: Creation of Managed Marsh Habitat: Potential impacts to cultural resources could result during ground disturbance and construction activities to create the managed marsh habitat for the HCP (IID water service area portion). For the same reasons as discussed above under Impact CR-1, impacts on cultural resources could be significant.	**Mitigation Measure HCP-CR-3:** The exact location of the managed marsh habitat in the IID water service area has not been determined; therefore, pre-Project surveys have not been conducted. The same mitigation measures listed under Mitigation Measure CR-1 would apply to this impact to provide assurances that if cultural resources are encountered during Project construction or operation, they will be handled appropriately.	Less than significant.	N/A	Same as HCP-CR-3.	Same as HCP-CR-3.	Same as HCP-CR-3.
HCP2-CR-4: Construction of conservation measures for HCP Approach 2: Potential impacts to cultural resources could result from ground disturbance and construction activities unless fallowing is the only conservation measure employed to conserve additional water for mitigation under this HCP approach. The amount of conservation would be scaled based on the amount of water to be conserved. For the same reasons as discussed above	**Mitigation Measure HCP2-CR-4:** The exact location of the conservation measures in the IID water service area has not been determined; therefore, pre-Project surveys have not been conducted. The same mitigation measures listed under Mitigation Measure CR-1 would apply under this HCP approach to provide assurances that if cultural resources are encountered during Project construction or operation, they will be handled appropriately.	Less than significant.	N/A	Same as HCP2-CR-4.	Same as HCP2-CR-4.	Same as HCP2-CR-4.

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Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
under Impact CR-1, impacts on cultural resources could be significant.						
CR-5: Reduced inflows to the Salton Sea: Reduced inflows to the Salton Sea from the Proposed Project's water conservation program (see Section 3.1, Hydrology and Water Quality) would lower the Sea's level. Lower Sea level would, in turn, expose submerged land. Newly exposed land could contain archaeological sites that could be vandalized if they were not protected. Newly exposed land could also be cultivated or developed, thus harming any archaeological sites if they were not protected. With implementation of the Salton Sea Habitat Conservation Strategy approximately 16,000 acres of seabed would be exposed, in addition to those expected to be exposed under the Projected Baseline.	**Mitigation Measure CR-5:** Gradual exposure of submerged lands could expose archaeological sites if they are present. The same mitigation measures listed under Mitigation Measure CR-1 would apply to this impact to provide assurances that if cultural resources are encountered during Project construction or operation, they will be handled appropriately. In addition, a series of archaeological surveys at regular intervals (once every 3 years) will be conducted to check freshly exposed lands for the presence/absence of archaeological sites.	Less than significant.	16,000 acres of exposed shoreline predicted for 2077.	Similar to Impact CR-5, but to a lesser extent.	Similar to Impact CR-5, but to a lesser extent.	Same as CR-5.
3.9 Indian Trust Assets						
ITA-1: Exposure of Torres-Martinez tribal lands from reduced inflow to Salton Sea after year 2035: The Salton Sea is expected to decline from its current elevation of about -228 feet to about elevation -240 feet from year 2035 through the end of the Project term. This would result in the exposure of land containing natural and cultural	**Mitigation Measure ITA-1:** **Cultural Resources** – Possible impacts from vandalism of exposed cultural resources could be mitigated by control of public access on exposed tribal lands as part of the air quality mitigation plan (see below). **Fish and Wildlife Resources** – With implementation of the Salton Sea Habitat Conservation Strategy, salinity levels in the	**Cultural Resources** – Less than significant. **Fish and Wildlife Resources** – Less than significant.	The 2077 elevation of the Salton Sea is predicted to be -235 feet msl.	Same as Impact ITA-1, but to a lesser extent.	Same as Impact ITA-1, but to a lesser extent.	Same as ITA-1 except that the 2077 elevation of the Salton Sea is predicted to be -240 feet msl.

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
resources that are considered by the Torres Martinez to be ITAs. This could have both adverse and beneficial impacts. Beneficial impacts could result from allowing scientific investigations of exposed resources, including archaeological data collection and natural resource exploitation. Exposure also could result in damage from vandalism and erosion and health effects from PM10 particle composition. Sea level decline could also effect fish and wildlife resources.	Salton Sea would be maintained at or below Baseline levels at least through the year 2035. This would maintain the fishery resource for as long as expected under Baseline conditions, so there would be no impact on the recreational fishery at the Sea. **Air Quality**– A 4-step air quality mitigation plan has been developed to address the potential impacts associated with increased wind-blown dust. With implementation of the mitigation plan, the impact on air quality from exposed Salton Sea lands would be substantially reduced. However, because of the potential for interim impacts (between the time monitoring identifies a problem and implementation of the treatment) and uncertainty regarding with the cost and feasibility of treatment options, it is concluded that air quality impacts will remain significant and unavoidable. **Health Effects from PM10 Particle Composition** – Sufficient data do not exist to pinpoint the locations and extent of elevated metals concentrations in the exposed shoreline sediment. Therefore, a meaningful health risk assessment is not possible at this time. However, because the potential does exist for incremental health risks under the Proposed Project, the mitigation and monitoring plan for the Proposed Project includes the following steps to minimize the potential for health risks: • Collect additional sediment samples • Monitor emissions from exposed shoreline	**Air Quality**– Significant and unavoidable.				

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
	• Monitor airborne concentrations • Assess potential health risks if necessary • Apply mitigation if necessary These five steps are potentially sufficient to suppress the potential for project-generated health effects from toxic compounds in PM10 to less-than-significant levels. However, a level of uncertainty remains regarding whether short-term and long-term air quality impacts and related health effects associated with exposed shoreline can be mitigated to a less-than-significant level. Therefore, it is conservatively concluded that that air quality impacts, which include possible health effects as described above, are potentially significant and unavoidable.					
3.10 Noise						
N-1: Noise impacts to sensitive receptors from construction of conservation measures: Noise resulting from construction could exceed County of Imperial construction noise standards, impacting sensitive receptors including riparian bird species.	**Mitigation Measure N-1:** Several measures would be implemented to reduce noise resulting from construction activities. (Measures are described in detail in Section 3.10.)	Less than significant.	N/A	A2-N-1: Noise impacts to sensitive receptors from construction of conservation measures: Less than significant impact with mitigation.	A3-N-1: Noise impacts to sensitive receptors from construction of conservation measures: Less than significant impact with mitigation.	No impact.

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
N-2: Exposure to long-term operation noise: Several on-farm and delivery system conservation measures, including tailwater return systems, drip irrigation, lateral interceptor systems, mid-lateral reservoirs, and seepage interceptors, require the operation of pumps that produce noise at various levels, some more than 70 dBA at 50 feet. These pumps could potentially exceed the Normally Acceptable noise/land use compatibility guideline of 70 dBA.	**Mitigation Measure N-2:** If possible, conservation system pumps would be located at sufficient distances from sensitive receptors to ensure that noise levels at the receptor do not exceed the 70 dBA guideline. If there is no flexibility in placement of equipment, permanent or temporary barriers/semi-enclosures would be placed over the pumps to ensure adherence to the guideline. Implementation of this measure would reduce potentially significant noise impacts from conservation system pump operation in the IID water service area to a less than significant level.	Less than significant.	N/A	A2-N-2: Exposure to long-term operation noise: Less than significant impact with mitigation.	A3-N-2: Exposure to long-term operation noise: Less than significant impact with mitigation.	No impact.
N-3: Noise impacts from lateral interceptor pumps: Lateral interceptor system pumps, which could operate up to approximately 50 percent of the time at 78 dBA, would exceed the county's operation noise standard of 75 dB (averaged sound level over 1 hour) for agriculture operations.	**Mitigation Measure N-3:** If possible, lateral interceptor system pumps would be located at sufficient distances from sensitive receptors to ensure that noise levels at the nearest receptor do not exceed the Normally Acceptable noise/land use compatibility guideline of 70 dBA. If there is no flexibility in placement of the pumps, permanent or temporary barriers/semi-enclosures will be placed over the pumps to ensure adherence to the standard. Implementation of this measure would reduce potentially significant noise impacts from lateral interceptor system pump operation in the IID water service area to a less than significant impact.	Less than significant.	N/A	No impact.	A3-N-3: Noise impacts from lateral interceptor pumps: Less than significant impact with mitigation.	No impact.
N-4: Noise from compliance with the IOP: Conservation of 59 KAFY for the IOP can be accomplished via fallowing (about 9,800 acres) or other conservation measures. Noise impacts could occur during construction of additional on-farm	**Mitigation Measure N-4:** See Mitigation Measures N-1 through N-3.	Less than significant.	N/A	Same as N-4.	Same as N-4.	Same as N-4.

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
irrigation system improvements or water delivery system improvements as described in Impact N-1 through N-3. This conservation would be in addition to the up to 300 KAFY for the Proposed Project and is part of the Proposed Project. If fallowing is selected for IOP compliance, about 9,800 additional acres would be required, and no noise impacts would occur.						
HCP-N-5: Noise impacts to sensitive receptors from construction of new marsh habitat or drain channels: Construction of new marsh habitat and drain channels would require the use of standard construction equipment such as backhoes, excavators, and utility trucks. Each of these pieces of equipment emits noise at a minimum of 77 dBA, which exceeds the County of Imperial construction noise standards. Therefore, the noise impact to sensitive receptors, including riparian bird species, from construction associated with creation of marsh habitat or drain channels is potentially significant.	**Mitigation Measure HCP-N-5.** Implementation of the measures described above in Mitigation Measure N-1, especially limiting construction activities to non-mating, non-nesting seasons, would reduce potentially significant noise impacts to less than significant levels.	Less than significant.	N/A	Same as HCP-N-5.	Same as HCP-N-5.	Same as HCP-N-5.

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Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
3.11 Aesthetics						
Impact A-1: Impacts on aesthetics would result from a decrease in the elevation of the Salton Sea: The Proposed Project would primarily affect views of the Salton Sea landscape as seen from public shoreline recreation areas and more distant public roadways. The specific visual effects and their severity would vary according to the affected viewer's location and activity. In general, it is anticipated that views most affected by the Project would be at public recreation locations situated near the existing shoreline. With implementation of the Salton Sea Habitat Conservation Strategy the shoreline is excepted to decline to -240 feet msl by 2077.	**Mitigation Measure A-1:** With implementation of the Salton Sea Conservation Strategy the elevation of the Salton Sea in year 2077 would be –240 msl. This increase in elevation compared to the Proposed Project without the Salton Sea Habitat Conservation Strategy will significantly lessen aesthetic impacts. However, these following measures should be implemented on an ongoing basis as the Sea recedes until it reaches its lowest and stable elevation, at which point they should be made permanent. Relocate recreation facilities and extend access to the new shoreline to provide quality public viewing opportunities of the Salton Sea and its shoreline. These facilities may be temporary until the Sea reaches its minimum and stable elevation. Develop interpretive facilities and material to be made available to the public at recreation areas and along public roadways. Interpretive displays may include historic photographs of the Salton Sea landscape and information about water conservation measures including their effects on Salton Sea water levels.	Less than significant.	The 2077 elevation of the Salton Sea is predicted to be -235 feet msl.	Same as Impact A-1, but to a lesser extent.	Same as Impact A-1 except to a lesser extent.	Same as Impact A-1.
3.12 Public Services and Utilities						
No significant impacts to public services and utilities were identified. See Table 3.12-1 in the Draft EIR/EIS for a summary of less than significant impacts.						
3.13 Transportation						
No significant impacts to transportation were identified. See Table 3.13-1 in the Draft EIR/EIS for a summary of less than significant impacts.						

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
3.14 Socioeconomics						
S-3: Net loss of 1,400 jobs and reduction in business output of $97.5 million with conservation by fallowing only.	The actual distribution of transfer revenues has not been identified by IID and might vary over the term of the Proposed Project. Some dollar value must be estimated to evaluate the potential impact; therefore, for this analysis it is assumed that all transfer revenues not spent by IID on water delivery system improvements, program administration, or environmental or mitigation measures pursuant to the Final EIR/EIS or HCP will be passed on to participating farmers.	N/A	Continuation of existing conditions, including the historic variation in agricultural employment levels.	No impact.	A3-S-3: Net loss of 1,090 jobs and reduction in business output of $75.8 million with conservation by fallowing only.	A4-S-2: Net loss of 1,400 jobs and reduction in business output of $97.5 million with conservation by fallowing only.
S-4: Loss of 290 jobs and reduction in business output of $20 million from conserving IOP water by fallowing only.	Same as above.	N/A	Continuation of existing conditions, including the historic variation in agricultural employment levels.	Same as S-4.	Same as S-4.	Same as S-4.
HCP2-S-5: Loss of up to 750 jobs and reduction in business output of $52 million from fallowing under HCP Approach 2.	Same as above.	N/A	Continuation of existing conditions, including the historic variation in agricultural employment levels.	Same as HCP2-S-5.	Same as HCP2-S-5.	Same as HCP2-S-5.
S-6: Potential decrease in property values after the year 2030.	None provided.	N/A	Eventual loss of the majority of the recreation-related economic activity as a	Same as S-6.	Same as S-6.	Same as S-6.

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
			result of the deterioration of the biological resources that support current recreation activities. Decreased economic activity would put downward pressure on property values.			
HCP2-S-7: Offsetting of the adverse economic impacts of accelerating the loss of recreation activities described as Impact S-5.	N/A	Beneficial effect.	Eventual loss of the majority of the recreation-related economic activity as a result of the deterioration of the biological resources that support current recreation activities. Decreased economic activity would put downward pressure on property values.	Same as HCP2-S-7.	Same as HCP2-S-7.	Same as HCP2-S-7.

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
3.15 Environmental Justice						
EJ-1: Environmental Justice effects from net loss of 2,440 jobs from fallowing under conservation program, IOP, and Salton Sea Habitat Conservation Strategy: Farm laborers could be affected as a group by fallowing activities. This effect would not disproportionately affect a specific community or area but could affect farm laborers, who are predominantly minority and low-income, as a population group. At the present time, no specific locations for fallowing have been identified. Under the worst case, up to 50,000 acres could be fallowed to provide conserved water for the transfer. Another 25,000 acres could be fallowed to provide water for mitigation and 8,900 for compliance with the IOP. The locations of land to be fallowed will depend on the willingness of farmers to enroll in the water conservation program.	The IID Board will consider whether measures to mitigate socioeconomic and associated environmental justice impacts as a result of fallowing in the Imperial Valley are appropriate, when it considers whether to approve the Proposed Project or an alternative to the Proposed Project.	High and adverse.	Environmental Justice Effects from Baseline levels of fallowing.	Same as EJ-1 except the maximum number of jobs lost would be 1,040.	Same as EJ-1 except the maximum number of jobs lost would be2,130.	Same as EJ-1.
EJ-2: Environmental Justice effects from windblown dust as a result of Sea level decline of 5 feet. As described in Section 3.7, Air Quality, windblown dust from the exposed shoreline of the Salton Sea under the Proposed Project could result in high and adverse air quality impacts. However, as described in Section 3.2, Biological Resources, implementation of Salton Sea	Other than the proposed mitigation for the air quality impact described under Section 3.7, no additional mitigation is proposed.	High and adverse.	Environmental Justice effects from windblown dust as a result of Baseline Sea level decline of 7 feet.	A2-EJ-2: Environmental Justice Effects from windblown dust as a result of Baseline Sea level decline.	A3-EJ-2: Environmental Justice Effects from windblown dust as a result of Baseline Sea level decline.	Same as EJ-2.

TABLE ES-1
Summary of Significant Impacts and Mitigation Measures

Summary of Potential Impacts from Proposed Project	Summary of Mitigation Measure(s)	Significance after Mitigation	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only[1]	Alternative 3: 230 KAFY All Conservation Measures[1]	Alternative 4: 300 KAFY Fallowing Only
Habitat Conservation Strategy will offset reductions in the Salton Sea elevation caused by other components of the Proposed Project, and thus avoid the air quality impacts of exposed shoreline caused by the Project until approximately 2035. Under the Proposed Project, the Sea's water levels are projected to decline from from the Projected Baseline of –235 to –240 msl (a decline of 5 feet) from 2035 through the end of the Project term. The proposed air quality mitigation (see Section 3.7) 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 unavoidable.						

[1]Salton Sea Accounting Model (SSAM) runs of the effect of the Salton Sea Habitat Conservation Strategy were not conducted for Alternatives 2 and 3. However, without the specific model runs it is possible to anticipate what their 2077 elevations may be based on existing information. For Alternative 2, without the Salton Sea Habitat Conservation Strategy the 2077 elevation is predicted to be –242. The 2077 elevation for the projected Baseline is –235, therefore for Alternative 2 with the Salton Sea Habitat Conservation strategy the elevation would be between –235 and –242. For Alternative 3, the projected elevation without the Salton Sea Habitat Conservation Strategy, assuming construction of on-farm and/or system based conservation measures is –247 msl. With the Salton Sea Habitat Conservation Strategy, assuming fallowing is implemented, the ending elevation would be between the projected Baseline elevation of –235 msl and the projected elevation for the Proposed Project with implementation of the Salton Sea Habitat Conservation Strategy of –240 msl.

1.0 PURPOSE AND NEED, OBJECTIVES, AND BACKGROUND

Section 1.2.2, tenth bullet on page 1-4:

- To support issuance of Incidental Take Permits under both the federal and the state Endangered Species Acts (ESA) for the covered activities.

Section 1.3, fifth bullet on page 1-6:

- **Salton Sea:** This subregion is defined as the Salton Sea and its existing shoreline at the time that the NOP for the Draft EIR/EIS was published, in addition to a 0.5 mile setback around the Sea.

Section 1.4.1, fifth paragraph on page 1-21:

From its headwaters in the Rocky Mountains of Colorado, the Colorado River flows southwest for 1,470 miles to the Gulf of California in Mexico. It drains an area of approximately 242,000 square miles, and the river or its tributaries travel through parts of seven Colorado River Basin (Basin) states in the US. The Colorado River is also the International Boundary between the US and Mexico for approximately ~~17 miles~~ 23.7 miles between Arizona and Mexico. From the International Boundary, it travels southward to form the boundary between the Mexican states of Baja California and Sonora before flowing into the Gulf of California.

Section 1.4.2, fifth paragraph on page 1-23:

~~Two concepts are key to understanding the Law of the River: the concept of "apportionment" and the concept of "priority." "Apportionment," which is also referred to as "entitlement," is the volume of water that an individual or entity has a legal right to divert within a given time period. The right to divert is usually limited to a certain diversion rate, point(s) of diversion, purpose(s) of use, and place of use (service area). "Priority" refers to an entity's right to take its apportionment relative to all other entities with entitlements. The highest-priority entitlement is exercised first, then the next-highest-priority entitlement is exercised next, and so on through the descending priorities as long as supplies are sufficient. Priority becomes crucial when not enough water is available to satisfy demand. The timing and amount of flow in a river are variable, so it is not always possible to meet all water demands. In times of shortage, those with the lowest-priority entitlement might receive only a portion of their entitlement. In times of severe shortages, even higher-priority entities might receive less than their full entitlement.~~

"Apportionment" refers to the distribution of Colorado River water between the Upper and Lower Basin States as identified in the Compact and among the Lower Division States as identified in the BCPA and the Decree. "Entitlement" is the legal authorization to beneficially consume Colorado River water. Some entitlements were obtained on or before June 25, 1929, through historical diversion rights under State law, which rights are recognized under the Decree. Some entitlements may have originated as federal reserved rights, or under a contract with the US through the Secretary or as a Secretarial reservation of water. It is the entitlement, not the apportionment, that establishes a right to consumptive use of Colorado River water.

Section 1.5.3, fourth paragraph on page 1-35:

Reclamation also proposes to adopt an Inadvertent Overrun and Payback Policy (IOP), which establishes requirements for payback of inadvertent overuse of Colorado River water by ~~Lower Basin~~ Colorado River water users in the Lower Division States. The IOP has been modified to indicate that Mexico is not included. Reclamation's adoption of the IOP is a condition precedent to the execution of the IA and QSA, and the IOP must be in place by the time these agreements go into effect.

2.0 DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES

Section 2.2.2, Table 2-2 on page 2-7:

TABLE 2-2
IID's Proposed Water Budget under the QSA

Water Budget (< > indicates water transfer to others)	Budget Cap and Adjustments	Additional Notes
3,100 KAF	Priority 3 Water Use Cap	
< 100 to 110 KAF >	To MWD per the 1988 IID/MWD Agreement	The 1988 IID/MWD Agreement is described in Section 1.4.4 in Chapter 1. Under this agreement, MWD is entitled to request and divert from the Colorado River an amount equal to the amount of water conserved by certain conservation projects paid for by MWD, estimated to range from 100 to 110 KAFY. Water began to be available under this agreement in 1990; the project reached full implementation in 1998. The impacts of the 1988 IID/MWD Agreement were addressed in a previous environmental assessment.
< 130 to 200 KAF >	To SDCWA – Transfer of conserved water	Transfer of conserved water to SDCWA is described in Section 2.2.4.1 in this Draft EIR/EIS.
< 56.2 KAF >	To MWD as part of the AAC Lining Project[1]	The AAC Lining Project is described in Section 1.5.2 in Chapter 1 and Section ~~5.3~~5.1 in Chapter 5 in this Draft EIR/EIS.
< 11.5 KAF >	To San Luis Rey Indian Water Rights Settlement parties via MWD as part of the AAC Lining Project	The San Luis Rey Indian Water Rights Settlement Act, enacted by Congress in 1988 as amended in 2000 (Title I of Public Law 100- 675), authorized a settlement of water rights claims to San Luis Rey River water. This settlement is expected to be facilitated through the use of 11.5 KAFY of water conserved by the AAC lining project and 4.5 KAFY conserved by the Coachella Canal lining project. Environmental compliance is provided for in the Draft IA EIS, Coachella Canal Lining Project Final EIR/EIS, and the AAC Lining Project Final EIR/EIS. Use of the water by certain settlement parties (the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians) will require additional environmental analysis.
< 100 KAF >	To CVWD and/or MWD – Transfer of conserved water	Transfer of conserved water to CVWD and/or MWD is described in Section 2.2.4.2 in this Draft EIR/EIS.

TABLE 2-2
IID's Proposed Water Budget under the QSA

Water Budget (< > indicates water transfer to others)	Budget Cap and Adjustments	Additional Notes
< 11.5 KAF >	For Miscellaneous and Federal present perfected rights	The QSA provides for IID's forbearance of use of 11.5 KAFY of Colorado River water to satisfy, at DOI's request, certain miscellaneous and Indian present perfected rights (see Section 1.4.2 in Chapter 1 of this Draft EIR/EIS) to Colorado River water. The 11.5 KAFY covered by IID's forbearance described above could be charged against IID's Priority 3, 6, or 7 water rights, at IID's option. To the extent the 11.5 KAFY is provided from IID's Priority 3 water right, that amount is included in the diversions subject to IID's contractual limitation on its Priority 3 diversions of Colorado River water at 3.1 MAFY, as described above and in the QSA.
2,610 to 2,690 KAF	Net Annual IID Water Budget	

Source: Reclamation 2002
Notes:
[1] In surplus years (as defined in the Draft IA EIS), IID would have a right to use this water with certain restrictions.

Section 2.2.6.5, fourth paragraph on page 2-42:

The Incidental Take Permits would have a permit life of 75 years, which is commensurate with the duration of the Proposed Project. ~~During that time, incidental take coverage for species currently unlisted would provide IID with regulatory assurance that no additional mitigation would be required by IID should a covered species become listed in the future.~~ Further information on the duration of the HCP and Incidental Take Permits can be found in Section 1.6 of the HCP (Appendix C in this Draft EIR/EIS).

Section 2.2.6.7, subsection *Drain Habitat Conservation Strategy*, fourth bullet on page 2-46:

- Minimize disturbance and mortality/injury of proposed covered species potentially resulting from dredging the mouths of the New and Alamo Rivers.

The disposal of dredged sediments required for drain maintenance will be subject to permitting requirements contained in the Porter-Cologne Water Quality Control Act (Title 23 of the California Water Code). Pursuant to Water Code Section 13260(a)(1), the [project proponent(s)] will file an application for a Waste Discharge Requirements Permit with the Colorado River Basin Regional Water Quality Control Board, and pay the appropriate filing fees. This action will ensure the project is in compliance with waste disposal requirements of the Regional Board and procedures as outlined in the Porter-Cologne Act and/or Section 401 of the federal Clean Water Act, nor violate state water quality standards.

Section 2.3.2.1, subsection *Conditions Affecting the LCR, IID Water Service Area, and Salton Sea*, second bullet on page 2-55:

- As described in Section 3.1, inflows to the Salton Sea are expected to decrease and the water quality of the Sea is expected to decline as a result of natural processes. In addition, salinity loads will naturally increase over time compared to historic loads.

- As described in Section 3.1, inflows to the Salton Sea are expected to decrease and the water quality of the Sea is expected to decline as a result of natural processes. In addition, salinity loads will naturally increase over time compared to historic loads.

- Biological conditions at the Salton Sea will change, such that key invertebrates and fish that maintain a sportfishery and provide forage for piscivorous and non-piscivorous birds will be eliminated.

3.0 ENVIRONMENTAL ANALYSIS

Section 3.0, subsection *Updated Impacts in the CVWD and MWD Service Areas*, Table 3.2 on page 3.0-8:

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
Hydrology and Water Quality	Implementation of the Proposed Project (second scenario – QSA Implementation) would result in a net increase in water flows in the Coachella Valley Stormwater Channel (CVSC) and drains flowing directly into the Salton Sea. Increased local and imported water supplies would be used in place of local groundwater and to recharge the local groundwater, reducing the extraction of groundwater to meet demand. It is anticipated that the current groundwater overdraft condition in the Coachella Valley would be eliminated by the Proposed Project in conjunction with the Coachella Valley Water Management Plan (which is being developed by CVWD and will be assessed in a subsequent Program EIR being prepared by CVWD--see Section 1.5.4). The increased use of Colorado River water supplies in the CVWD service area as a result of the transfer of conserved water by IID is a beneficial impact and is not considered significant as it would not impact drainage patterns, runoff rates, or flood hazards, and would not cause inundation. The average overall TDS and turbidity of the CVSC and the Coachella Valley drains is projected to increase with implementation of the Project (second scenario – QSA Implementation). These effects are less than significant. Increased use of Colorado River water for agriculture may increase the selenium concentration in the drains and the CVSC. The projected flow-weighted average concentration of selenium is currently above the established aquatic life criteria of 5 μg/l; therefore, there would be a significant impact. Based upon the lack of available mitigation measures for selenium concentration, as described in the EIR/EIS, this significant impact would be unavoidable. Use of Colorado River water for groundwater recharge would increase the TDS of groundwater near the recharge basins, exceeding secondary (aesthetic) drinking water standards. This effect is a significant and unavoidable adverse impact that cannot be feasibly mitigated. In addition, Colorado River water contains small amounts of perchlorate, a potential health risk for which no standards exist.	Implementation of the Proposed Project, and in the event that CVWD would forgo their use of the transfer water available under the Proposed Project, (second scenario – QSA Implementation) would result in an increase in Priority 3a Colorado River diversions at the CRA intake. Colorado River water diversions by MWD would replace a portion of the previously diverted surplus and unused apportionment water with Priority 3a water. This change in diversions is not considered a significant impact to water resources, and would not impact water quality, groundwater, drainage patterns and runoff, or flood hazard, and would not cause inundation.

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
	Introduction of perchlorate into the groundwater is a potentially significant impact. However, CVWD has indicated that if recharge would cause any domestic drinking water well of the Torres Martinez Band of Desert Cahuilla Indians to exceed any recognized health-based water quality standard, CVWD will work with the tribe to bring the drinking water supply of the tribe into compliance with such standard either by providing domestic water service to the tribe from the district's domestic water system or by providing appropriate well-head treatment; as a result of these mitigation measures, this impact would be reduced to a less than significant level.	
Biological Resources	Additional supplies of Colorado River water for CVWD would be put to beneficial use within CVWD's Improvement District No.1 (ID-1) in the Lower Coachella Valley. ID-1 is the only area that can receive Colorado River water transferred from IID as a result of the Proposed Project (second scenario – QSA Implementation). This is one element of the Coachella Valley Water Management Plan for which a Program EIR is in preparation (Section 1.5.4). The water transferred from IID would be conveyed via the Coachella Canal, the existing Canal water distribution system, expansion of this distribution system to supply unserved portions of ID-1, and construction of recharge basins on the west side of the Coachella Valley. As construction of piping and pumping facilities would be constructed primarily in roadways or in adjacent agricultural areas, temporary and permanent impacts on desert terrestrial habitat are expected to be less than significant. Recharge basins would be constructed in desert habitat. Focused surveys for listed species will be performed once facilities sites are identified. Increased flows in the agricultural drains could have an unknown but potentially significant impact on endangered desert pupfish. A project-level impact assessment and potential mitigation measures will be identified in subsequent environmental documentation prepared in connection with the Coachella Valley Water Management Plan, and these mitigation measures will reduce any impacts to less than significant levels. CVWD has been meeting with CDFG and USFWS to obtain incidental take authorization for activities resulting from the	Implementation of the Proposed Project would not result in any physical changes within the MWD service area. There would be no construction associated with implementation of the QSA in the MWD service area or along the CRA. There would be no significant impact to biological resources.

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
	implementation of the Coachella Valley Water Management Plan, including receipt of water in accordance with the Proposed Project (second scenario – QSA Implementation). Due to time constraints inherent in the QSA, and the fact that any incidental take potentially resulting from the implementation of the Coachella Valley Water Management Plan will occur many years in the future, the resources agencies have conferred and agreed that it is appropriate for all of CVWD's activities under the Coachella Valley Water Management Plan to be analyzed and covered under the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP), which is currently being prepared (see Chapter 5, Section 5.3). If the CVMSHCP does not proceed, CVWD and the resource agencies have agreed that an independent HCP shall be in place prior to CVWD receiving any transferred water from IID as contemplated under the Proposed Project (second scenario – QSA Implementation).	
Geology and Soils	Implementation of the Proposed Project (second scenario – QSA Implementation) would result in increased groundwater levels, thereby reducing the potential for subsidence. This is a beneficial impact. In addition, the construction impacts that are described under Biological Resources would result in less than significant impacts to geology because they will not result in the covering, destruction, or modification of any geologic or physical feature. The construction impacts would result in less than significant impacts to soils because they will affect a small land area, be limited in duration, and be mitigated by BMPs.	No impacts (see explanation under Biological Resources).
Land Use	The facilities that would be constructed as a result of the Project (see Biological Resources) would be compatible with existing and planned land uses because they would be constructed in vacant and/or open space areas.	No impacts (see explanation under Biological Resources).
Agricultural Resources	The additional Colorado River water that would be obtained by CVWD would be used to replace the current groundwater use or would be used for direct groundwater recharge. Colorado River water generally has a higher TDS concentration than Coachella	No impacts (see explanation under Biological Resources).

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
	Valley groundwater and would require the application of additional water to some lands irrigated with Colorado River water to leach salts from the soil; the additional water necessary to leach salts was included in the agricultural water demand estimates prepared by CVWD in connection with preparation of the Coachella Valley Water Management Plan, and the water supplies for agricultural uses would remain adequate. In addition, construction of new facilities would not occur on prime farmland nor would the construction activities conflict with Williamson Act contracts. Impacts would be less than significant.	
Recreation	Coachella Valley Stormwater Channel The projected increase in flows in the CVSC will have no significant effect on the ability of swimmers to make unauthorized use of the channel with respect to water flow or quality. With respect to fishing, fishes in the higher reaches may move farther upstream with higher drain flows. Coachella Canal Water levels in the canal are expected to increase, and no significant change in water quality is predicted as a result of the Project. Thus, there would be no impact on fish and unauthorized fishing in the canal. There would be no impact on fish and fishing or any other recreational activities in Lake Cahuilla. Trails/Scenic Corridors Construction of the facilities mentioned under Biological Resources would result in temporary, localized effects. Site-specific impacts will be identified in subsequent environmental documentation.	No impacts (see explanation under Biological Resources).
Air Quality	There would be temporary impacts to air quality during construction of the facilities mentioned under Biological Resources. Such impacts are expected to be less than significant. The reduction in groundwater pumping and increased groundwater levels would result in a beneficial air quality impact due to reduced energy consumption.	No impacts (see explanation under Biological Resources).

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
	Air quality impact as a result of the vehicular travel associated with the maintenance of new facilities will be analyzed in subsequent environmental documentation, to be prepared by CVWD. Such impacts are expected to be less than significant. Air quality impacts from the exposure of the Salton Sea shoreline could extend to the Salton Sea Air Basin, as described in Chapter 3.7.	
Cultural Resources	The potential impacts on specific cultural resources will be addressed in subsequent documentation once construction sites have been determined. However, if any cultural resources impact is determined, site-specific mitigation measures will be identified for implementation as appropriate.	No impacts (see explanation under Biological Resources).
Indian Trust Assets[1]	The use of Colorado River water for groundwater recharge could increase the TDS of tribal groundwater near the recharge basins. The anticipated TDS increase would not impair any beneficial uses of the water as defined by established state and federal primary (or health-based) drinking water standards. Recharge with Colorado River water could introduce low levels of perchlorate into the groundwater near the recharge basins. . However, CVWD has indicated that if recharge would cause any domestic drinking water well of the Torres Martinez Band of Desert Cahuilla Indians to exceed any recognized health-based water quality standard, CVWD will work with the tribe to bring the drinking water supply of the tribe into compliance with such standard either by providing domestic water service to the tribe from the district's domestic water system or by providing appropriate well-head treatment; as a result of these mitigation measures, this impact would be reduced to a less than significant level.	No impacts (see explanation under Biological Resources).
Noise	Noise impacts would occur during the construction activities mentioned under Biological Resources. Such impacts will be less than significant because the impacts would be temporary and occur in primarily agricultural areas.	No impacts (see explanation under Biological Resources).
Aesthetics	Aesthetics impacts would occur during the construction activities mentioned under Biological Resources. Such impacts will be less	No impacts (see explanation under Biological Resources).

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
	than significant because the impacts would be temporary and occur in primarily agricultural areas. New facilities would be similar in visual character to the existing landscape and would be few in number and widely spaced. Aesthetic impacts will be less than significant.	
Public Services and Utilities	The Proposed Project would not cause a change in population or otherwise impact public services. Service providers will be informed of construction schedule and location well in advance of construction commencement. The impact of the Project on water supplies is beneficial because supplies will increase. Overall impacts would be less than significant.	Implementation of the Proposed Project would reduce water flows along the LCR, resulting in lower energy production at Parker Dam. MWD could be economically impacted because the reduction in energy would mean less federal hydropower to pump Colorado River water through the CRA.
Transportation	Temporary transportation impacts, such as disruption of traffic patterns and increases in traffic hazards, or changes in availability of parking on local roadways, would occur during construction activities. Because of their temporary nature, impacts are expected to be less than significant.	No impacts (see explanation under Biological Resources).
Socioeconomics [1]	The increased water supply would be used to offset the existing groundwater overdraft and would neither change population trends nor impact agriculture. Construction and operation of new facilities would be located in agricultural areas or along existing roadways, and this minor amount of construction would not adversely affect population or housing. No socioeconomic impacts would occur.	As stated above under Public Services and Utilities, MWD could be economically impacted as energy production is reduced at Parker Dam. Impacts would be less than significant.
Environmental Justice[1]	The increase in TDS from CVWD's use of Colorado River water would not have a disproportionately high and adverse affect on minority or low-income populations. The air quality impacts of the Proposed Project after Year 2035 in the SSAB could have a disproportionate impact on minorities and low-income populations in the CVWD service area.	No impacts (see explanation under Biological Resources).

TABLE 3-2
Updated Impacts Analysis for CVWD Service Area

Resource Area	CVWD Service Area (Improvement District No. 1)	MWD Service Area
Transboundary Effects[1]	No transboundary impacts.	No transboundary impacts.
Growth-Inducing Impacts	See Chapter 5 in the Draft EIR/EIS.	See Chapter 5 in the Draft EIR/EIS.

Sources: Reclamation 2002; CVWD et al. 2002; CVWD 2000

[1] Indian Trust Assets, Environmental Justice, Socioeconomics and Transboundary Effects are topic areas required in NEPA analysis and therefore are not addressed in the QSA PEIR. These summaries are provided to fulfill the NEPA requirements for this EIR/EIS.

Section 3.0, subsection *Salinity*, fourth paragraph on Page 3.0-15:

The existing salinity of the Sea is approximately 45 g/L~~46 g/L~~. Without the project, salinity is expected to continue to increase to approximately 86 g/L by the year 2077. The initial impact resulting from increased salinity would likely be the inability of the fishery to reproduce, which would ultimately lead to its virtual disappearance from the Sea. The salinity level at which this impact occurs is approximately 60 g/L. Subsequently, piscivourous (fish eating) birds would be impacted as their food supply diminished and disappeared. In the Baseline condition, salinity of approximately 60 g/L is reached in year 2023 as shown on Table 3-3. Acceleration of salinity levels resulting from the Proposed Project and alternatives is measured against the Baseline reaching approximately 60 g/L in year 2023. Impacts associated with increasing salinity are discussed in Sections 3.1 Hydrology and Water Quality and 3.2 Biological Resources.

3.1 HYDROLOGY AND WATER QUALITY

Section 3.1.2.2, subsection entitled *Section 303d of the CWA*, fourth paragraph on page 3.1-8:

Section 303(d) of the CWA. As discussed above, Section 303(d)(1)(C) of the CWA requires the RWQCB to establish TMDLs for impaired water bodies. The Salton Sea is on the state's 303(d) list of impaired water bodies. Therefore, TMDLs must be set for COCs in the Salton Sea. TMDLs to be established for the Salton Sea include salt (initiation date 1998; finish date 2001), selenium (initiation date 2002; finish date 2007), and nutrients (initiation date 2002; finish date 2010). Subsequent to development of TMDLs, the state must implement monitoring and management measures to reduce pollutant loading and improve water quality.

A revised CWA Section 303(d) list was approved in 2001 by the Regional Board and submitted to the State Board for consideration. The State Board will adopt a statewide 303(d) list in 2002, with subsequent revisions scheduled for every two years.

Section 3.1.3.1, subsection *Diversion at AAC*, the first paragraph on page 3.1-25:

Thus, water delivered for use in the Imperial and Coachella valleys accounts for approximately 64 percent of the gross amount of Colorado River water diverted into the AAC. From 1986 through 1998, an average of 2.87 MAFY of Colorado River water was delivered to the Imperial Valley via the AAC (see Figure 3.1-7). As measured at AAC Drop No. 1, the minimum quantity was approximately 2.48 MAF in 1992; the maximum was approximately 3.12 MAF in 1996. The flow quantity and water quality of the AAC is discussed in Section ~~3.2.2.2~~3.1.3.2, IID Water Service Area and AAC.

Section 3.1.3.3, subsection *Water Balance*, the sixth paragraph on page 3.1-69:

Water Balance. The Salton Sea watershed comprises approximately 8,360 square miles, draining a small portion of San Bernardino County that is tributary to the Whitewater River, the southern area of Riverside County, most of Imperial County, the eastern portion of San Diego County, and part of the State of Baja California in

the Republic of Mexico. The main natural tributaries to the Salton Sea are the Whitewater River, which flows into the north end of the Sea, and the Alamo and New Rivers, which flow into the Sea from the south, as shown in ~~Figure 3.1-24~~ Figure 3.1-22.

Section 3.1.3.3, subsection *Water Quality*, first bullet in the fourth paragraph on page 3.1-74:

- Non-contact water recreation
- Contact water recreation

Section 3.1.3.3, subsection *COCs*, ninth bullet on page 3.1-75:

- Nutrients and other organic parameters (see Table 3.1-7 and 3.1-8)

In Section 3.1.4, Impacts and Mitigation Measures, water quality criteria are compared to possible impacts to determine the potential for threats to these beneficial uses. Although freshwater criteria apply to the rivers and canals discussed elsewhere in this report, in many ways, the Salton Sea is a unique environment, with its own issues, to which neither freshwater nor ocean water standards would necessarily be appropriate or protective. The exception to this statement is for selenium, where EPA has identified a maximum concentration of 5.0 µg/L (see Table 3.1-14).~~Although freshwater criteria apply to the rivers and canals discussed elsewhere in this report, saltwater criteria are more appropriate for the Salton Sea.~~ A brief introduction to each COC, and a summary of existing data describing temporal and spatial characteristics of each COC are presented below.

Section 3.1.3.3, subsection *Salinity*, following the fifth paragraph on page 3.1-76:

A graph showing more recent trends, i.e. for the period 1950 to 2000, in the annual inflow to the Salton Sea and the corresponding salinity concentration is presented in Figure 3.1-24A.

Section 3.1.4.1, subsection *Salton Sea Accounting Model*, second paragraph on page 3.1-99:

The Salton Sea Accounting Model can be run in two different modes. These are identified as stochastic and deterministic modes of operation. Both operate on an annual time step which means that the model performs calculations once for each year. In stochastic mode, the model simulates a different sequence of hydrologic conditions each time the model is run. Running the model in this fashion takes into consideration that future hydrologic conditions at the Salton Sea are not likely to be exactly in the pattern as what occurred historically. In the deterministic mode, the model assumes that historic hydrologic conditions will be repeated in the future in exactly the same pattern.

~~The Salton Sea Accounting Model incorporates the ability to perform stochastic and deterministic simulations of Salton Sea conditions. The Salton Sea Accounting Model operates on an annual time step. Deterministic simulations of the Salton Sea Accounting Model assume that the hydrologic and salt load variability of the Sea would repeat in the future exactly in the same pattern each time the Salton Sea is~~

~~simulated. Stochastic implies that different hydrologic conditions are sampled and used in each simulation.~~

Section 3.1.4.2, sixth bullet on page 3.1-101:

- ~~Otherwise substantially degrade water quality (see Table 3.1-14).~~
- Otherwise substantially degrade water quality, based on the designated beneficial uses and their corresponding water quality objectives (see Table 3.1-14 and Table 3.1-14b).
- Cause inundation by seiche, tsunami, or mudflow.

Section 3.1.4.2, Table 3.1-14 on page 3.1-102:

TABLE 3.1-14
Water Quality Standards/Significance Criteria

Constituent of Concern	CMC[A] (mg/L)	CMC[A] (µg/L)	CCC[B] (µg/L)	Human Health[C] (µg/L)	TMDL[D] (mg/L)
TDS and Salinity	4,000[E]	--	--	250,000	--
Selenium	--	--	5.0	--	--
Boron	--	--	--	--	--
TSS	--	--	--	--	200
Organophosphorus Insecticides					
– Chloropyrifos		0.083	0.041	--	--
– Diazinon	--	--	--	--	--
Organochlorine Insecticides					
– 4,4'-DDT		1.1	0.001	0.00059	--
– 4,4'-DDE	--	--	--	0.00059	--
– 4,4'-DDD	--	--	--	0.00083	--
– Toxaphene	--	0.73	0.0002	--	--
Organochlorine Herbicides	--		--	--	--

Note: The values listed for the COCs in this table were derived from present and proposed regulations in the California Toxics Rule (ISWB/EBEP), and EPA National Recommended Water Quality Criteria. The criteria listed in this table are based on the most conservative value derived from a published final water quality rule for Aquatic Life Criteria. In cases where the value is not published in a final Aquatic Life Criteria water quality rule, the screening value for significance criteria was derived from Human Health Criteria for consumption of fish.

With the exception of selenium, the values in this table are for freshwater significance criteria only. Specific water quality standards for TDS, and TSS and selenium have not been established for the Salton Sea. However, the Colorado River Basin RWQCB Basin Plan establishes a goal for reducing salinity concentrations in the Sea from current levels to 35,000 mg/L. The Basin Plan states that "[w]hen salinity increases above 45,000 mg/L TDS, it is very questionable if a viable fishery will continue to exist in the Sea." However the Basin Plan also states that "the achievement of this water quality objective shall be accomplished without adversely affecting the primary purpose of the Sea, which is to receive and store agricultural drainage, seepage, and storm waters."

-- No appropriate or relevant requirement or criteria.

[A] Value derived from EPA Aquatic Life Criteria. Criterion maximum concentration (CMC) - a 1-hour average concentration designed to protect against unacceptable effects from acute (refers to short-term exposure to pollutants) exposures to higher concentrations.

[B] Value is derived from EPA Aquatic Life Criteria. Criterion continuous concentration (CCC) - a 4-day average concentration designed to protect against unacceptable effects from chronic (refers to long-term exposure to pollutants) exposures to lower concentrations.

[C] Value is derived from EPA Human Health Criteria. Based on the chemical's toxicity (noncancer or cancer) and exposure to that chemical from the consumption of fish. Exposure to the chemical of concern from air, drinking water (MCL) or from food other than fish is not included in the criterion.

TABLE 3.1-14
Water Quality Standards/Significance Criteria

Constituent of Concern	CMC[A] (mg/L)	CMC[A] (µg/L)	CCC[B] (µg/L)	Human Health[C] (µg/L)	TMDL[D] (mg/L)

[D] Value is derived from the Sediment/Siltation Total Maximum Daily Load for the Alamo River. The TMDL is an amendment to Colorado River Basin RWQCB Basin Plan (CRB RWQCB, 2001). The 200 mg/L TSS TMDL is established as a final (Phase 4) "Numeric Target" for Alamo River only. Interim numeric TMDL target goals and target dates for the Alamo River are as follows:

Phase	Time Period	Interim Target
Phase 1	2001 - 2003 (Years 1 - 3)	320 mg/L
Phase 2	2004 - 2007 (Years 4 - 7)	240 mg/L
Phase 3	2008 - 2010 (Years 8 – 10)	216 mg/L
Phase 4	2011 – 2013 (Years 11 - 13)	200 mg/L

Specific measures and Best Management Practices designed to achieve the Draft TMDL requirements stipulated by the RWQCB Basin Plan are included in the IID Revised Drain Water Quality Improvement Plan (DWQIP).

Section 3.1.4.2, following second bullet on page 3.1-102 (amendment includes new Table 3.1-14b):

- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Designated beneficial uses and corresponding specific water quality objectives for subject waters are set forth in the CRWQCB (Colorado River Basin Regional Water Quality Control Board) Basin Plan and summarized in Table 3.1-14b. Federal regulations define water quality standards as including state's water quality objectives, designated beneficial uses, and anti-degradation policy. The anti-degradation policy requires that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

TABLE 3.1-14B
Beneficial Uses and WQOs for Potentially Affected Surface Waters

Surface Waters	Beneficial Use	Water Quality Objectives
New River	Freshwater Replenishment	Free of untreated domestic and industrial waste waters
	Industrial Service Supply (Potential)	Free from toxic substances that may be discharged into the river as a result of human activity
	Water Contact Recreation	BOD: 30 mg/l
	Non-contact Water Recreation	COD: 70 mg/l (Lagoon Discharge Canal) and 100 mg/l (upstream of Discharge Canal)
	Warm Freshwater Habitat	Fecal Coliform: 30,000 colonies per 100 ml, with no single sample to exceed 60,000 colonies per 100 ml
	Wildlife Habitat	Total Dissolved Solids (TDS): 4,000 mg/l (avg.) and 4,500 mg/l (max.)
	Preservation of Rare, Threatened, or Endangered Species	Bacteria: geometric mean of E coli densities less than 126 per 100 ml and enterococci less than 33 per 100 ml
		Biostimulatory substances: Nitrate and phosphate limitations placed on industrial discharges considering beneficial uses
Alamo River	Freshwater Replenishment	Total Dissolved Solids (TDS): 4,000 mg/l (avg.) and 4,500 mg/l (max.)
	Water Contact Recreation	Bacteria: geometric mean of E coli densities less than 126 per 100 ml and enterococci less than 33 per 100 ml
	Non-contact Water Recreation	Biostimulatory substances: Nitrate and phosphate limitations placed on industrial discharges considering beneficial uses
	Warm Freshwater Habitat	
	Wildlife Habitat	
	Hydropower Generation (Potential)	
	Preservation of Rare, Threatened, or Endangered Species	
Salton Sea	Aquaculture	Salinity: 35,000 mg/l unless demonstrated that a different level of salinity is optimal for sustenance of wild and aquatic life
	Industrial Service Supply (Potential)	Selenium: no more than four day average of 0.005 mg/L and one hour average of 0.02 mg/L
	Water Contact Recreation	Bacteria: geometric mean of E coli densities less than 126 per 100 ml and enterococci less than 33 per 100 ml
	Non-contact Water Recreation	
	Warm Freshwater Habitat	
	Wildlife Habitat	
	Preservation of Rare, Threatened, or Endangered	

TABLE 3.1-14B
Beneficial Uses and WQOs for Potentially Affected Surface Waters

Surface Waters	Beneficial Use	Water Quality Objectives
	Species	
Lower Colorado River	Municipal and Domestic Supply Agriculture Supply Aquaculture Industrial Service Supply Ground Water Recharge Water Contact Recreation Non-contact Water Recreation Warm Freshwater Habitat Cold Freshwater Habitat Wildlife Habitat Hydropower Generation Preservation of Rare, Threatened, or Endangered Species	Salinity: 723 mg/l (Below Hoover Dam), 747 mg/l (Below Parker Dam), 879 mg/l (Imperial Dam). Bacteria: geometric mean of E coli densities less than 235 per 100 ml and enterococci less than 1175 per 100 ml Radioactivity: 5 pc/L (Combined Radium-226 and Radium-228), 15 pc/L (Gross Alpha particle activity, 20,000 pc/L (Tritium), 8 pc/L (Strontium-90), 50 pc/L (Gross Beta particle activity), 20 pc/L (Uranium) Chemical Constituents: see note 1 Fluoride: Refer to General Water Quality Objectives summarized below
Imperial Valley Drains	Freshwater Replenishment Water Contact Recreation Non-contact Water Recreation Warm Freshwater Habitat Wildlife Habitat Preservation of Rare, Threatened, or Endangered Species	Herbicide spraying to be conducted in coordination with the County Agricultural Commissioner, California Department of Fish and Game (DFG), and California Department of Health Services Total Dissolved Solids (TDS): 4,000 mg/l (avg.) and 4,500 mg/l (max.) Bacteria: geometric mean of E coli densities less than 126 per 100 ml and enterococci less than 33 per 100 ml Biostimulatory substances: Nitrate and phosphate limitations will be placed on industrial discharges taking into consideration beneficial uses

Notes:

Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the following limits: Maximum Contaminant Levels for Inorganic Chemicals (mg/L): Arsenic 0.05, Barium1.0, Cadmium 0.010, Chromium 0.05, Lead 0.05, Mercury 0.002, Nitrate 10.0, Selenium 0.01, Silver 0.05. Maximum Contaminant Levels for Organic Chemicals - Chlorinated Hydrocarbons (mg/L): Endrin 0.002, Lindane 0.004, Methoxychlor 0.1 Toxaphene 0.005. Chlorophenoxys: 2,4-D 0.1, 2,4,5-TP Silvex 0.01.

In addition to the water body-specific objectives summarized in Table 3.1-14b, general water quality objectives are relevant to all surface receiving waters of the State. Regarding controllable sources of discharge, general water quality objectives that apply to all surface waters of the Colorado River Basin Region are briefly summarized as follows:

- **AESTHETIC QUALITIES -** All surface waters shall be free from substances attributable to wastewater of domestic or industrial origin or other discharges which adversely affect beneficial uses not limited to: Settling to form objectionable deposits; Floating as debris, scum, grease, oil, wax, or other matter that may cause nuisances; and Producing objectionable color, odor, taste, or turbidity.
- **TAINTING SUBSTANCES -** Water shall be free of unnatural materials which individually or in combination produce undesirable flavors in the edible portions of aquatic organisms.
- **TOXICITY -** All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life.
- **TEMPERATURE -** The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.
- **pH -** Since the regional waters are somewhat alkaline, pH shall range from 6.0-9.0. Discharges shall not cause any changes in pH detrimental to beneficial water uses.
- **DISSOLVED OXYGEN -** The dissolved oxygen concentration shall not be reduced below the following minimum levels at any time: 5.0 mg/l in warm waters, 8.0 mg/l in cold waters, 8.0 mg/l in warm and cold waters.
- **SUSPENDED SOLIDS AND SETTLEABLE SOLIDS -** Discharges of wastes or wastewater shall not contain suspended or settleable solids in concentrations which increase the turbidity of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in turbidity does not adversely affect beneficial uses.
- **BIOSTIMULATORY SUBSTANCES -** Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- **SEDIMENT -** The suspended sediment load and suspended sediment discharge rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- **TURBIDITY -** Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

- **RADIOACTIVITY -** Radionuclides shall not be present in waters in concentrations which are deleterious to human, plant, animal or aquatic life or that result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal or aquatic life.
- **CHEMICAL CONSTITUENTS -** No individual chemical or combination of chemicals shall be present in concentrations that adversely affect beneficial uses. There shall be no increase in hazardous chemical concentrations found in bottom sediments or aquatic life.
- **FLUORIDE –** Limiting concentrations of fluoride may vary with temperature. Refer to the CRWQCB Basin Plan for specific details.
- **PESTICIDE WASTES -** The discharge of pesticidal wastes from pesticide manufacturing processing or cleaning operations to any surface water is prohibited

Some of these criteria and objectives are not considered explicitly in the water quality section but are discussed extensively in the evaluation of impacts on the resource that corresponds to the beneficial use (such as Biological Resources, Section 3.2, for warm water fisheries).

Section 3.1.4.3, subsection *Collective Drains Discharging to the New and Alamo Rivers*, sixth paragraph on page 3.1-105:

Under the Proposed Project, the amount of drain (tile, tail, seepage, and spillage) water that is collected by and discharged from the IID drainage system to the New and Alamo Rivers would be reduced approximately ~~33~~ 32.4 percent and ~~30~~ 31.3 percent, respectively, from the mean annual volumes predicted for the Baseline. The primary impacts associated with the reduction of flow in the IID drains that discharge to the New and Alamo Rivers are associated with water quality in the drains. No other impacts to these drains are anticipated. Figure 3.1-27 shows the drainage basins within the IID water service area of the New and Alamo Rivers.

Section 3.1.4.3, subsection *Water Quantity*, second paragraph on page 3.1-120:

According to model results generated by the IIDSS (see Appendix E), the Proposed Project is expected to reduce IID's discharge to the Salton Sea by approximately 28 percent, from roughly 1.1 MAFY under the Baseline, to 793 KAFY (includes flow from Mexico). Over a 75-year period, modeling conducted by Reclamation indicates that the reduction in flow is expected to result in a drop in the surface level of the Sea of roughly 22 feet, from its Baseline elevation of approximately –227.8 feet msl to –249.8 feet msl (Salton Sea Accounting Model 2001 data, see Figure 3.1-28). In addition, Reclamation's model predicts that over the life of the Proposed Project, the reduction of flow will reduce the surface area of the Sea by 28 percent (approximately 103 square miles), from the present area of approximately 233,000 acres to 167,000 acres. By far, the greatest reductions are expected to occur between the time of the initiation of transfer and the year 2030, when the Sea is expected to drop to a mean elevation of –245 feet msl (see Figure 3.1-28). In comparison, under the Baseline, the mean elevation of the Sea is expected to drop

approximately 7 feet to –235 feet msl over the same 75-year period. However, with implementation of the Salton Sea Habitat Conservation strategy in concert with the Proposed Project, the elevation of the Sea will be maintained at Baseline elevations to the year 2035 and then reach an elevation of about –240 at the end of the project term, 2077.

Section 3.1.4.4, subsection *Water Quantity*, sixth paragraph on page 3.1-128:

Water Quantity. Modeling conducted by Reclamation indicates that under the No Project/Baseline, the mean surface elevation of the Sea is expected to drop approximately 7 feet over the next 75 years, from its current elevation of approximately –228 feet msl to –235.3 feet msl (Figure 3.1-31). In addition, Reclamation's model predicts that over the life of the project, the surface area of the Sea is expected to decrease approximately 16,000 acres or roughly 25 square miles, from the present area of approximately 233,000 acres to 217,000 acres (see Figure 3.1-31).

Section 3.1.4.5, subsection *Water Quantity*, seventh paragraph on page 3.1-138:

Water Quantity. According to model results generated by the IIDSS (see Appendix E), ~~the Proposed Project~~Alternative 2 is expected to reduce IID's discharge to the Salton Sea by approximately 12 percent, from roughly 1.1 MAFY under the Baseline to 966 KAFY (includes flow from Mexico). Modeling conducted by Reclamation indicates that, over a 75-year period, the reduction in flow is expected to result in a drop in the surface of the Sea of roughly 15.5 feet, from ~~its~~ the Baseline elevation of approximately -227.8 feet msl to –242.3 feet msl (Salton Sea Accounting Model 2001 data, see Figure 3.1-33). In addition, Reclamation's model predicts that ~~over the life of the Proposed Project,~~ the reduction of flow will reduce the surface area of the Sea by 16 percent (approximately ~~39~~ 59 square miles), from the present area of approximately 233,000 acres to 195,000 acres. By far, the greatest reductions are expected to occur between the time of the initiation of transfer and the year 2030 (see Figure 3.1-33). In comparison, under the Baseline the mean elevation of the Sea is expected to drop nearly 7 feet to –235.3 feet msl over the same 75-year period. However, with implementation of the Salton Sea Habitat Conservation strategy in concert with Alternative 2, the elevation of the Sea will be maintained at Baseline elevations to the year 2035 and then reach an elevation of about –242 at the end of the project term, 2077.

Section 3.1.4.6, subsection *Water Quantity*, seventh paragraph page 3.1-147:

In addition, Reclamation's model predicts that over the life of ~~the Proposed Project~~Alternative 3, the reduction of flow will reduce the surface area of the Sea by 4 percent (approximately ~~65.5~~ 86 square miles), from the present area of approximately 233,000 acres to 178,000 acres. By far, the greatest reductions are expected to occur between the time of the initiation of transfer and the year 2030 (see Figure 3.1-35). In comparison, under the Baseline the mean elevation of the Sea is expected to drop nearly 8 feet to –235.3 feet msl over the same 75-year period. However with implementation of the Salton Sea Habitat Conservation strategy in concert with Alternative 3, the elevation of the Sea will be maintained at Baseline elevations to the

year 2035 and then reach an elevation between –235 msl and –240 at the end of the project term, 2077.

Section 3.1.4.7, subsection *Water Quantity*, sixth paragraph on page 3.1-156:

In addition, Reclamation's model predicts that over the life of ~~the Proposed Project~~Alternative 4, the reduction of flow will reduce the surface area of the Sea by 14 percent (approximately ~~65.5~~50 square miles), from the present area of approximately 233,000 acres to 201,000 acres. By far, the greatest reductions are expected to occur between the time of the initiation of transfer and the year 2030 (see Figure 3.1-37). In comparison, under the Baseline the mean elevation of the Sea is expected to drop nearly 8 feet to –235.3 feet msl over the same 75-year period. However, with implementation of the Salton Sea Habitat Conservation strategy in concert with Alternative 4, the elevation of the Sea will be maintained at Baseline elevations to the year 2035 and then reach an elevation of about –240 at the end of the project term, 2077.

3.2 BIOLOGICAL RESOURCES

Section 3.2.3.2, subsection *Drainage System*, third paragraph on page 3.2-24:

Maintenance activities associated with the drains include maintaining the gravity flow of tilewater into the drains, conveyance capacity and efficiency, and structural integrity of the drains. Vegetation is cleared from drains primarily via mechanical means; occasionally, vegetation is controlled by prescribed burns or chemical ~~and biological~~ control methods. Drains are cleaned as needed, depending on the extent of sediment and vegetation.

Section 3.2.4.1, Table 3.2-34 on page 3.2-93:

TABLE 3.2-34

Primary Association and Use of Vegetation Communities by Selected Wildlife Species in the Study Area

Common Name	Habitat Association	Habitat Use	Federal Status	California Status	Arizona Wildlife of Concern
Arizona Bell's vireo	Cottonwood-willow/early successional	Nesting		CE	
Yuma hispid cotton rat	Cottonwood-willow/early successional	Year-round		SC	
Colorado River hispid cotton rat	Cottonwood-willow/early successional	Year-round		SC	
Southwestern willow flycatcher	Cottonwood-willow/mid-successional, salt cedar	Nesting	FE	CE	

TABLE 3.2-34

Primary Association and Use of Vegetation Communities by Selected Wildlife Species in the Study Area

Common Name	Habitat Association	Habitat Use	Federal Status	California Status	Arizona Wildlife of Concern
willow flycatcher	Cottonwood-willow/mid-successional	Nesting		CE	
brown crested flycatcher	Cottonwood-willow/mature	Nesting		SC	
Common black-hawk	Cottonwood-willow/mature	Nesting			X
Harris hawk	Cottonwood-willow	Nesting		CSC	
Cooper's hawk	Cottonwood-willow/mature	Nesting		SC	
elf owl	Cottonwood-willow/mature	Nesting		CE	
Gila woodpecker	Cottonwood-willow/mature	Nesting		CE	
Gilded northern flicker	Cottonwood-willow/mature	Nesting		CE	
Long-eared owl	Cottonwood-willow/mature or salt cedar (*Athel* spp)/tall	Nesting		SC	
Mississippi kite	Cottonwood-willow/mature or salt cedar(*Athel* spp)/tall	Summer migrant and visitor			X
Summer tanager	Cottonwood-willow	Nesting		SC	
Yellow warbler	Cottonwood-willow/early to mid-successional	Nesting		SC	
Vermilion flycatcher	Cottonwood-willow/mature	Nesting		SC	
Western yellow-billed cuckoo	Cottonwood-willow/mature	Nesting	C	CE	
Red bat	Cottonwood-willow	Breeding			X
Belted kingfisher	Backwaters	Nesting/ winter foraging			X
California brown pelican	Backwaters	Migration and winter	FE	CE; Fully protected	
Bald eagle	Backwaters	Breeding, wintering	FT	CE; Fully protected (Southern Bald Eagle)	

TABLE 3.2-34

Primary Association and Use of Vegetation Communities by Selected Wildlife Species in the Study Area

Common Name	Habitat Association	Habitat Use	Federal Status	California Status	Arizona Wildlife of Concern
Bonytail chub	Backwaters	All life stages	FE	CE	
Flannelmouth sucker	Backwaters	All life stages			X
Razorback sucker	Backwaters	All life stages	FE, CH designated	CE; Fully Protected	
Colorado River pupfish	Springs and marshes	All life stages	FE		
Allen's big-eared bat	Backwaters	Breeding			X
California leaf-nosed bat	Backwaters	Breeding/ Wintering		SC	
Greater western mastiff	Backwaters	Breeding			X
Pallid bat	Backwaters	Breeding		SC	
Pale big-eared bat	Backwaters	Breeding		SC	
Spotted bat	Backwaters	Breeding			X
Big free-tailed bat	Backwaters	Breeding		SC	
Cave myotis	Backwaters	Breeding		SC	
Mexican long-tongued bat	Backwaters	Breeding	SC	SC	
Occult little brown bat	Backwaters	Breeding	SC	SC	
Ringtail	Cottonwood-willow	Breeding		FP	
American bittern	Marsh	Breeding			X
California black rail	Marsh	Nesting, foraging, and wintering		CT; Fully protected	
Clark's grebe	Marsh	Breeding			X
Western least bittern	Marsh	Breeding			X
Yuma clapper rail	Marsh	Nesting	FE	CT; Fully protected	
American peregrine falcon	Backwaters and marshes	Winter foraging		CE; CA Fully protected	
Colorado river toad	Backwaters and marshes	All life stages		SC	
Lowland leopard frog	Backwaters and marshes	All life stages			X

TABLE 3.2-34

Primary Association and Use of Vegetation Communities by Selected Wildlife Species in the Study Area

Common Name	Habitat Association	Habitat Use	Federal Status	California Status	Arizona Wildlife of Concern
Northern leopard frog	Backwaters and marshes	All life stages		SC	X
Sonoran mud turtle	Backwaters	All life stages		SC	
Desert tortoise (Mojave population)	Floodplain, uplands	All life stages	FT		

CE: California Endangered
SC: Species of Special Concern in California or Federal Species of Concern
CT: California Threatened
FE: Federally Endangered
FT: Federally Threatened
C: Candidate
FP: Fully Protected

Section 3.2.4.3, subsection *Water Conservation and Transfer*, beginning with the first paragraph on page 3.2-103:

Under the Proposed Project, IID would conserve 300 KAFY of water for transfer to SDCWA, CVWD, and/or MWD. Conservation and transfer of 300 KAFY of water is assumed for the analysis of the Proposed Project to capture the maximum potential impact. At least 200 KAFY and up to 300 KAFY of the water conserved would be diverted at Parker Dam rather than at Imperial Dam. If all conserved water is transferred to SDCWA or MWD, the reduction in flows below Parker Dam would be 300 KAFY. If 100 KAFY is transferred to CVWD, the reduction would be 200 KAFY. This change in the point of diversion for 200 to 300 KAFY of water from Imperial Dam to Parker Dam would reduce the water surface elevation and adjacent groundwater elevation in the LCR between Parker and Imperial Dams. The method of water conservation would not influence the flow levels resulting in the LCR under the Proposed Project; thus, the evaluation focuses on the level of water conservation. Under the Proposed Project, Reclamation would implement a number of conservation measures on the LCR. Thus, combined effects of the flow reductions and conservation measures are considered.

Change in Water Surface Elevations. The flow of the Colorado River between Parker and Imperial Dams generally is set at the amount needed to meet diversion requirements in the United States plus treaty obligation deliveries to Mexico. Exceptions occur during periods of surplus river flow or unanticipated rainstorms, and when delivery requirements are less than 2,000 cfs, the minimum flow rate generally provided.

Post-project analysis of water surface elevations was undertaken, based on modeling performed by Reclamation in 1991 and 2000. The modeling utilized CRSS, a detailed computer model of the entire Colorado River System, used regularly by Reclamation

to analyze operation of federal reservoirs. Thisese complex models issare the only analytical tools of itstheir kind available to perform this type of impact assessment.

During the spring, summer, and fall, the average monthly flow of the river as it approaches Imperial Dam varies between 9,000 and 11,000 cfs. During winter months, the average monthly flow drops to about 5,000 cfs. River flows are determined by release schedules from the dams, and water levels vary throughout the day. At Parker Dam, this variation is on the order of 5 feet (60-inches) during summer peak irrigation season and about 2.5 feet (30-inches) in winter low demand periods. Flow variations are dampened by channel storage downstream of Parker Dam and average about 0.5 feet daily fluctuation at Imperial Dam.

The 1991 study used the CRSS model to predict LCR discharge and stage for an assumed maximum transfer volume of 480,000 acre-feet. The 2000 CRSS modeling used the updated CRSS for 20 transects at stations throughout the river channel between Parker Dam and Imperial Dam. Average water levels at each of these transects were determined, based on measured values for existing conditions, and were computed and calibrated for total annual reductions in flow volume in increments of 100,000 acre-feet, ranging from 100 KAF to 1.6 MAF.

For a total annual flow reduction of 400 KAF, average water surface elevations throughout the Parker Dam to Imperial Dam river segment ranged from a low of 0.03 feet (0.5 inch) to a high of 0.37 feet (4.48 inches). This 2000 model result is very consistent with the previous 1991 analyses, which concluded that: "Reduction of the river's discharge below Parker Dam by 480 KAFY…would cause, at most, a 4-inch reduction in average water surface elevations when more or less normal flows occur." (page 2, Findings and Conclusions; *Assessment of Cumulative Impacts on the Colorado River from Water Projects That Would Reduce Releases from Parker Dam*, April 1991, Bureau of Reclamation, Lower Colorado Region, Boulder City, Nevada).

Under terms of the water conservation and transfer agreement, these total depletion levels would occur incrementally over 10 to 20 years or more. Assuming the minimum time of 10 years to estimate maximum potential impacts conservatively, and using the more refined 2000 model data, water surface elevations are predicted to decrease in a range from 0.05-inch to a maximum of 0.45-inch annually over the minimum 10-year period. At completion of full diversion volumes, the change in average water surface elevation would range from 0.5 to 4.48 inches. At this maximum flow depletion condition, exposed shoreline along the river channel would range from about 1 inch (for the 0.5-inch water surface elevation drop) to a maximum of about 10 inches (for the 4.48-inches water surface elevation drop).

The 10 to 20 year implementation time permits substantial adjustment to this change in average water levels, as successional colonization of plants occurs naturally along the new wetted perimeter. Even in backwater and slough areas, plant root systems should be able to adjust to the very minor water levels reductions occurring in minute increments over a prolonged period. The 2000 analysis focused on cumulative effects of the 400 TAF as a part of the total 1.574 MAF considered under the LCR MSCP. Conclusions of the 1991 analysis, limited to a total flow volume

~~change of 480 TAF and, therefore, more representative of the project-specific impacts contemplated here include:~~

- ~~A 4-inch reduction in water level during normal flow would reduce the surface area of the LCR and the backwaters along the LCR by 30 acres at most, less than 1 percent of the total, during normal flow conditions, against a background of greater changes in area caused by fluctuations of the LCR.~~
- ~~Riparian and marsh vegetation would adapt to the minor shift in average bank line.~~
- ~~Fish spawning would not be impacted.~~
- ~~Recreation on the Colorado River would not be impacted.~~
- ~~The flow-weighted average salinity of the Colorado River at Imperial Dam would be increased by approximately 5 mg/L by all the water projects.~~
- ~~The water projects and resulting changes in river operation would reduce hydropower generation along the river by approximately 36 million kWh per year.~~

~~(Bureau of Reclamation, Lower Colorado Region, April 1991)~~

Low Flow Conditions. ~~Reclamation's 1991 analysis addressed potential effects of 480 KAF diversions on low flows in the LCR as well. Their conclusions follow.~~

~~Projected a~~Average monthly flow without the projects would be about 10,000 cubic feet per second (cfs). A reduction of river discharge below Parker Dam of 4080,000 acre-feet would reduce the average monthly flow below Cibola Lake (a point between Blythe, California, and Imperial Dam) by about 700 cfs in April and August, critical months from a biological standpoint. The reduction in flow would occur gradually over more than a decade. ~~… From April through September, flows with the projects range from 93 percent to 94 percent of flows without the projects.~~

The water level in the river downstream from Parker Dam fluctuates in a pattern set by dam releases. Upstream from the Palo Verde Diversion Dam near Blythe, California, the highs and lows are directly influenced by the pattern of releases from Parker Dam, which is high during the day and low at night. Typically, there is a summer fluctuation of 5 feet (winter, 2.5 feet) immediately downstream from Parker Dam. This fluctuation gradually attenuates as the river flows downstream. The river water level upstream from Imperial Dam has a daily fluctuation of about one-half foot, superimposed on monthly and yearly fluctuations of several feet.

~~Results of the analysis indicate that u~~With full implementation of the proposed project, the daily high and low fluctuations upstream from the Palo Verde Diversion Dam near Blythe, ~~California, the daily fluctuations (highs and lows)~~ would be essentially unaffected in magnitude. The duration of the highs would decrease slightly. Downstream from the Palo Verde Irrigation District, centered near Blythe, ~~implementing all~~the ~~-~~project~~s~~ would cause, about~~t most,~~ a 4-inch reduction in average water surface elevations when more or less "normal" flows occur in the Imperial Division (area of greatest biological concern). This reduction would occur

against the background of continually fluctuating River flow and water levels~~., in which the minimum and maximum flows would remain unchanged.~~ ~~(emphasis added)~~

The total change in average water surface levels attributable to the IID water conservation and transfer project (4.5 inches) is substantially less than the normal water surface elevation changes of approximately 2.5 to 5.0 feet, which occur under the existing flow regimen between Parker and Imperial Dams. Under these average reduced flows, the new exposed shoreline area along the LCR and in backwater and slough areas is predicted to be approximately 1 inch to a maximum of 10 inches and would occur in small increments over an extended period such that they would be less than 15 percent (maximum) of the baseline daily fluctuation levels in any one year.

Based on all available evidence for determining water surface elevation changes, it is concluded that the transfer could have potentially significant adverse impacts to habitat in riparian and backwater marsh areas along the LCR. As an individual project, this small increment of water level reduction would not substantially diminish the value of habitat for any species, or cause the direct demise of any species associated with those habitats. However, using the 1.574 MAF based model as a worst-case methodology, the reduction of LCR flows by about 400,000 acre-feet annually could contribute to a potentially significant cumulative impact on habitat areas along the LCR corridor between Parker Dam and Imperial Dam.

The federal analysis was not based on standards for cumulative impact assessment prescribed by the California Environmental Quality Act. The CEQA Guidelines provide that the definition of cumulative impacts should be based on reasonably foreseeable related actions (section 15130). The only known and reasonable foreseeable diversions identified at this time are those covered by this transfer and the Quantification Settlement Agreement, totaling up to about 5400,000 acre-feet.

Section 3.2.4.3, subsection *Impact BR – 8*, first paragraph on page 3.2-112:

Impact BR – 8. Reduced Acreage of Aquatic Habitat Could Affect Special-Status Fish Species. Backwaters provide key habitat for the razorback sucker and bonytail chub. ~~Bonytail chub does not inhabit the mainstem below Parker Dam but likely will be introduced.~~ The razorback sucker and bonytail chub could be affected by less open water in the River and backwaters. Decreased river elevation could lessen the amount of habitat in transition between terrestrial and aquatic (e.g., submerged tree roots) in which fish forage or escape from predators.

Section 3.2.4.3, subsection *Habitat Conservation Plan*, third paragraph on page 3.2-134:

As part of the Proposed Project, IID would implement an HCP to minimize and mitigate the impacts to special-status wildlife species inhabiting the IID water service area, AAC, and Salton Sea. The HCP consists of five habitat-based conservation strategies and ~~three~~ four species-specific strategies:

- Salton Sea Conservation Strategy
- Tamarisk Scrub Conservation Strategy
- Drain Habitat Conservation Strategy

- Desert Habitat Conservation Strategy
- Agricultural Field Habitat Conservation Strategy
- Burrowing Owl Conservation Strategy
- Desert Pupfish Conservation Strategy
- Razorback Sucker Conservation Strategy
- Other Covered Species Strategy

These strategies minimize and mitigate the impacts resulting from the conservation and transfer of water under the Proposed Project and O&M activities on the special-status species associated with these habitats or the individual species addressed by the species-specific strategies. For species associated with each habitat, the impact of the habitat-specific conservation strategy is beneficial. However, implementation of certain elements of each strategy could adversely affect species associated with other habitats. For example, construction of managed marsh under the Drain Habitat Conservation Strategy could reduce the amount of agricultural land and affect species associated with agricultural fields. The beneficial and adverse effects of implementing the elements of the HCP on biological resources in the Imperial Valley and AAC follow. The effects of implementing the Salton Sea Conservation Strategy are described under the Salton Sea section that follows this section.

The Other Covered Species Strategy of the HCP consists of avoidance, minimization, and mitigation measures. Implementation of the avoidance and minimization measures for the other covered species would not result in physical changes in the environment. Therefore, no impacts would result from this component of Other Covered Species Strategy. Mitigation measures consist of acquiring and protecting or creating and protecting desert habitat or unique habitat features (e.g., roosts) that cannot be avoided during construction activities. Impacts associated with these actions are encompassed by the Desert Habitat Conservation Strategy.

Impacts resulting from the implementation of the HCP would be the same for Alternatives 2, 3, and 4 and, therefore, are not discussed under each alternative.

HCP (IID Water Service Area Portion)

Impact HCP-BR – 32. Creation of Managed Marsh Habitat Would Benefit Wildlife Associated with Drain Habitat. As part of the Proposed Project, IID would implement an HCP that minimizes and mitigates the impacts of the proposed water conservation and transfer project on special-status species. Under the HCP, IID would create an amount of managed marsh habitat equal to the total amount of habitat in the drains plus an additional amount of habitat based on predicted toxicity effects from increases in selenium under the water conservation and transfer program. At least 190 acres of high-quality marsh habitat and up to 652 acres would be created within 15 years. This habitat would be created in large blocks and would consist of native marsh vegetation, such as cattails, bulrush, and sedges~~, depending on the USFWS management of emergent freshwater marsh units on the Sonny Bono Salton Sea NWR.~~

Section 3.2.4.3, subsection *Impact HCP-BR – 40*, beginning with the sixth paragraph on page 3.2-137:

Impact HCP-BR – 40. HCP Measures Would Avoid Impacts to Razorback Suckers. Under the HCP, IID would salvage razorback suckers found when canals are dewatered and transport the fish to the LCR for release. As a result of this action, significant impacts to razorback suckers would be avoided. (No impact)

Impacts resulting from the implementation of the HCP (IID Water Service Area portion) would be the same for Alternatives 2, 3, and 4 and, therefore, are not discussed under each alternative.

~~**HCP (Salton Sea Portion) Approach 1: Hatchery and Habitat Replacement**~~

~~The potential effect of this approach to biological resources in the Imperial Valley would be to reduce the acreage of agricultural fields in active production. Initially, construction and operation of the hatchery could remove about 50 acres of agricultural land from production. This minor amount of land would not affect biological resources in the Imperial Valley. Five thousand acres of ponds would be constructed once the salinity of the sea exceeded the level at which tilapia could survive and grow. These ponds would be located on agricultural land and would reduce the amount of agricultural land in the Imperial Valley. This relatively small reduction (about 1 percent) in the amount of agricultural land would not adversely affect biological resources. Section 3.8.6 of the HCP (Appendix C) provides information on the potential effects of the Salton Sea mitigation approaches on special-status species.~~

HCP (Salton Sea Portion) ~~Approach 2:~~ Use of Conserved Water as Mitigation

~~Approach 2 of t~~The Salton Sea Habitat Conservation Strategy ~~entails~~ includes generating mitigation water and supplying this water to the Sea so as to maintain the salinity of the Salton Sea below 60 ppt until 2030. ~~there would be no change in inflow to the Salton Sea with implementation of the water conservation and transfer programs.~~ Fallowing could be used for this water conservation. The amount of land that would need to be fallowed would depend on how water for transfer was conserved. If ~~F~~fallowing was used to generate all the 300 KAFY of water for transfer, then about 25,000 acres of land would need to be fallowed for mitigation water. Under this scenario, a total of 75,000 acres of land would be fallowed. If on-farm irrigation system and water delivery system improvements were used to conserve 300 KAFY of water for transfer, then about 75,000 acres of lands would be needed for mitigation water. This approach would reduce the amount of agricultural land by about 15 percent. Even with this reduction, agricultural fields would remain abundant at about 425,000 acres, and no significant adverse effects to biological resources would be expected. Section 3.8.6 of the HCP (Appendix C) provides information on the potential effects of the Salton Sea mitigation approaches on special-status species.

The Salton Sea Habitat Conservation Strategy could also avoid flow and water quality changes in the drains and rivers resulting from water conservation and transfer until 2030. Under the Salton Sea Conservation Strategy, IID would conserve additional water to offset inflow reductions resulting from water conservation and

transfer. IID would supply this additional water to the Salton Sea as necessary to maintain the salinity of the Sea below 60 ppt until 2030 after which IID would discontinue conserving water to supply to the Sea. During the period when IID is supplying water to the Sea, selenium concentrations and salinity in the drains and rivers could be equal or lower than under the Baseline depending on the source and source location of the mitigation water. Also, flow levels in the drains and rivers would be the same as under the Baseline. Thus, the effects to biological resources from changes and water quality and quantity in the drains and rivers described for the water conservation and transfer component of the Proposed Project may be avoided during the first 30 years of project implementation. After 2030, when water would no longer be supplied to the Sea, selenium concentrations in the drains and rivers would increase and flow levels would decrease as described previously.

Impacts resulting from the implementation of the HCP (Salton Sea Portion) ~~Approaches 1 and 2~~ would be the same for Alternatives 2, 3, and 4 and, therefore, are not discussed under each alternative.

Salton Sea
Water Conservation and Transfer

Under the Proposed Project, IID would conserve between 130 KAFY and 300 KAFY of water using a combination of on-farm irrigation system improvements, water delivery system improvements, and/or ~~F~~fallowing. If all ~~F~~fallowing was used to conserve water, effects to the salinity, surface elevation, and surface area would be the least of the possible methods for conserving water. This "best-case" scenario of the Proposed Project is analyzed under Alternative 4. The following analysis addresses the "worst-case" scenario of conservation of 300 KAFY of water using on-farm irrigation system improvements and water delivery system improvements and transfer to SDCWA. Use of ~~F~~fallowing to generate a portion of the conserved water would have effects between those described here and those of Alternative 4.

Section 3.2.4.3, subsection *Double-Crested Cormorant*, sixth paragraph on page 3.2-154:

Even with changes in the suitability of foraging, roosting, and nesting habitat quality at the Salton Sea, cormorants would still inhabit the Proposed Project area. They nest and roost on the Finney-Ramer Unit of the Imperial WA and forage at lakes on this unit and in agricultural drains, reservoirs, and Fig Lagoon. The New and Alamo River Deltas also would provide nesting, roosting, and foraging opportunities. However, the large colony on Mullet Island probably would not persist. These effects would occur under both the Proposed Project and No Project. The potential effects to the cormorant population if Mullet Island is abandoned as a nesting colony is described in Section 3.2.4.4 Alternative 1: No Project.

Section 3.2.4.3, subsection *Impact BR – 48*, third paragraph on page 3.2-156:

The surface elevation of the Salton Sea is projected to decline with or without the Proposed Project (Figure 3.2-15). Under the Baseline, the water surface elevation is projected to fall 3 feet by 2010 and 4 feet by 2015. This reduction in surface elevation would connect sites, including Mullet Island, to the mainland. The Proposed Project would accelerate the decline in surface water elevation by a few years. With 300 KAFY of conservation, the water surface elevation would fall by 3 feet and 4 feet, 3

and 7 years earlier than under the Baseline, respectively. The small temporal (3 years for most sites and 7 years for Mullet Island) difference in when the islands would connect to the mainland between the Proposed Project and the Baseline would not result in a substantial adverse affect to colonial, ground-nesting birds at the Salton Sea and is considered a less-than-significant impact. Furthermore, with implementation of the HCP component~~,~~ this effect would be avoided (See Impact HCP-BR-53).~~IID would create islands for black skimmers and gull-billed terns that could be used by other ground-nesting birds as well.~~

Western snowy plovers nest on sandy flats on the western edge of the Salton Sea (Shuford et al. 1999). Sandy flats would continue to be available under the Proposed Project, and no changes in nesting habitat availability for this species are expected.

Brown pelicans have nested on the Alamo River Delta and roost at both the New River and Alamo River Deltas. White pelicans also roost at these deltas but do not nest at the Salton Sea. The IID routinely dredges the New River and Alamo River to maintain flow to the Salton Sea. The dredging has extended the river channels 1 to 2 miles into the Salton Sea, where they have formed the deltas of these two rivers. As the Sea recedes under the Proposed Project, IID would allow the river channels to extend into Sea, thus maintaining delta areas. Although the river deltas would continue to provide habitat for pelicans, as described, the suitability of Mullet Island as a roosting area could be compromised with creation of the landbridge.

Herons and egrets, along with other species, nest in communal rookeries in trees, large shrubs, and snags around the Salton Sea. In general, these rookeries are found over water or in trees in marshes or on islands. However, they also occur over land. Like the nesting/roosting islands and islets described, snags probably are in only a few feet of water. As with the nesting/roosting islands, these snags would connect to the mainland under both the Proposed Project and the Baseline, occurring up to 7 years earlier under the Proposed Project. Because of the small temporal difference in the snags connecting to the mainland, and considering that herons and egrets nest and roost in snags that are not surrounded by water, the Proposed Project would not significantly affect communal rookeries in snags or trees at the Salton Sea. Further, with implementation of the HCP component, this effect would be avoided (See Impact HCP-BR-53). (Less than significant.)

Section 3.2.4.3, subsection *Habitat Conservation Plan (Salton Sea Portion)*, beginning with the second paragraph on page 3.2-160:

~~**HCP (Salton Sea Portion) Approach 1: Hatchery and Habitat Replacement**~~

~~As described in Section 2.2.6, Approach 1 to addressing impacts to piscivorous birds, resulting from the accelerated salinization of the Salton Sea under the Proposed Project, consists of first constructing and operating a fish hatchery and subsequently constructing ponds, if necessary. The following describes anticipated effects of following this approach on biological resources.~~

The Salton Sea Habitat Conservation Strategy consists of three measures to avoid, minimize and mitigate the effects of the water conservation and transfer program on species covered by the HCP. Under Salton Sea - 1, IID would conserve additional

water (beyond that required for transfer) and use it as mitigation water to maintain the salinity of the Sea below 60 ppt until 2030. Salton Sea – 2 specifically addresses potential effects to desert pupfish from increased salinity levels and Salton Sea – 3 addresses potential changes in the extent of tamarisk scrub habitat adjacent to the Salton Sea. The effects of implementing the components of the Salton Sea Conservation Strategy on biological resources at the Sea follow.

~~Impacts resulting from the implementation of the HCP would be the same for Alternatives 2, 3, and 4 and, therefore, are not discussed under each alternative.~~

~~Impact HCP1-BR – 52. Maintenance of Fish Resources Would Benefit Piscivorous Birds~~
~~Under this approach, IID would construct and operate a hatchery to produce tilapia or other fish suitable as a forage species for piscivorous birds at the Salton Sea (primarily white pelicans, brown pelicans, black skimmers, and double-crested cormorants). When reproduction by tilapia no longer was supported in the Sea, as determined by annual surveys conducted by CDGF, IID would begin stocking fish into the Sea. IID would continue stocking fish until CDFG determined that fish could no longer survive and grow in the Sea. At this point, IID would construct 5,000 acres of ponds to continue to provide foraging opportunities for piscivorous birds.~~

~~Relative to the No Project alternative, this approach would benefit piscivorous birds. The fish stocking component would extend the period of time when fish would be present in the Salton Sea. Juvenile and adult tilapia are capable of withstanding high salinity levels; tilapia have been collected at a salinity as high as 120 g/L. However, the ability of tilapia to reproduce is more sensitive to salinity. At salinity above 60 g/L, tilapia reproduction is predicted to decline (Costa-Pierce and Reidel 2000a). The hatchery under this approach measure is used to replace reproduction of tilapia lost in the sea because of high salinity. Because juvenile and adult tilapia can tolerate higher salinity levels, the hatchery would extend the time the sea supports fish. This extension would have the dual benefit of continuing to support fish as prey for fish-eating birds and providing additional time for implementation of a long-term restoration project.~~

~~Under the Baseline, the abundance of tilapia is expected to decline in about 2023, when the salinity of the Sea is projected to exceed 60 g/L. At this point, as described previously under Impact BR – 46, use of the Salton Sea by piscivorous bird would be expected to decline. As noted, tilapia have been collected at a salinity as high as 120 g/L. Assuming that fish could be successfully stocked until the salinity of the Sea surpasses 120 g/L. Approach 1 could maintain tilapia (and therefore use by piscivorous birds) at the Salton Sea until about 2032, about 10 years longer than under the Baseline.~~

~~Following the stocking program, IID would construct ponds to continue to provide fish. The ponds would be maintained through the end of the permit term unless a long-term restoration project was implemented. In combination with the fish hatchery, Approach 1 would provide certainty that foraging opportunities would be available at the Sea for 75 years. In contrast, under the Baseline, by the end of the 75-year period, the salinity is projected to be about 86 g/L, and with few fish expected to persist, use of the Salton Sea by piscivorous birds likely would be minimal.~~

~~Implementation of Approach 1 would ensure that foraging habitat was available throughout the 75-year permit term and benefit piscivorous birds (beneficial impact). The HCP contains a species-by-species evaluation of the effects of Approach 1 on species proposed for coverage under the HCP. (Beneficial impact.)~~

~~**Impact HCP1-BR – 53. Creation of Nesting/Roosting Islands Would Benefit Gull-Billed Terns, Black Skimmers, and Other Colonial Birds**~~

Impact HCP-BR-52. Implementation of the HCP Would Avoid Conservation-induced Changes in Fish Resources and Impacts to Piscivorous Birds Under the HCP IID would avoid and minimize the potential for take of covered piscivorous birds resulting from implementation of the water conservation and transfer project by conserving additional water and allowing that water to flow to the Salton Sea. The amount of water allowed to flow to the Sea would be sufficient to offset the reduction in inflow to the Salton Sea caused by the Proposed Project and to maintain salinity in the Sea at or below 60 ppt until the year 2030. By providing this additional water to the Sea, the salinity thresholds of fish in the Salton Sea would be exceeded in the same year or later than projected under the Baseline (Figure 3.2-A). Thus, implementation of the HCP is predicted to avoid the acceleration of declines in fish abundance projected with the water conservation and transfer component of the Proposed Project (See Impact BR – 45). As a result, the impacts to piscivorous birds from reduced fish abundance attributable to the Proposed Project (See Impact BR-46) would be offset. (Less than significant)

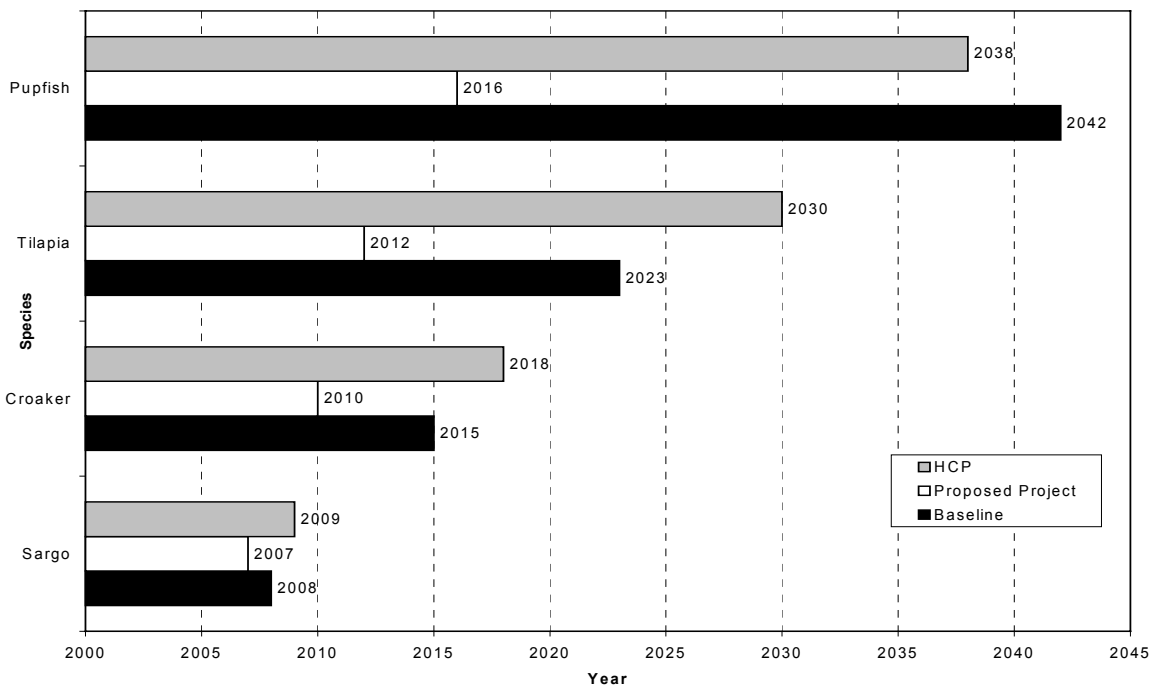


FIGURE 3.2-A
Projected Year in Which Salinity Would Exceed the Tolerances for Fish Species Under the Baseline, Proposed Project Without HCP (Proposed Project) and Proposed Project With HCP (HCP)

Impact HCP-BR-53. Implementation of the HCP Would Benefit Colonial Nesting and Roosting Birds. The Salton Sea represents one of only two nesting locations for gull-billed terns in the United States and one of about six nesting locations for black skimmers. Mullet Island currently supports the largest colony of double-crested cormorants on the West Coast. As the water surface elevation of the Salton Sea declines, islands at the Salton Sea currently used by these species would become connected to the mainland so they would be accessible to terrestrial predators and could be subject to human disturbance. As described under Impact BR – 49, the conservation and transfer of 300 KAFY under the Proposed Project would accelerate the rate of decline of surface elevation of the Sea. This acceleration would result in islands and trees used by colonial nesting/roosting birds becoming connected to the mainland several years earlier than under the Baseline.

Implementation of the Salton Sea Conservation Strategy of the HCP would benefit colonial nesting and roosting birds by maintaining the water surface elevation of the higher than under the Baseline. With implementation of the Salton Sea Conservation Strategy, the surface elevation of the Sea is projected to fall 3 feet by 2012 and 4 feet by 2026. Under the Baseline, the Sea is projected to fall 3 feet by 2010 and 4 feet by 2015. Thus, islands and trees used by colonial birds for nesting and roosting would remain surrounded by water for a longer period of time than under the Baseline. In particular, Mullet Island would remain separated from the mainland for an additional 11 years under the Salton Sea Conservation Strategy. The longer period of time that nesting and roosting sites would be surrounded by water under the HCP would benefit colonial nesting and roosting birds. (Beneficial impact.)

~~To offset the potential reduced suitability of nesting and roosting areas, under this approach, IID would create islands and/or berms to provide nesting and roosting opportunities for gull-billed terns and black skimmers. These features would be located so they are not connected to the mainland or otherwise accessible to predators and in areas with minimal levels of human activity. Black skimmers and gull-billed terns currently use berms and dikes at the Salton Sea (Molina 1996) and are known to use dredge spoils for nesting (Layne et al. 1996). Thus, it is reasonable to expect they would exploit additional created features. Other colonial birds also would likely exploit these features.~~

~~Under the Baseline, islands currently used by black skimmers, gull-billed terns, and other colonial birds are projected to become connected to the mainland by 2015. The islands created under Approach 1 would be located so they would not become connected to the mainland. Therefore, they would be available to black skimmers, gull-billed terns, and other birds for a longer period of time than under the Baseline, benefiting these species. (Beneficial impact.)~~

Impact HCP1- BR – 54. Creation of Native Tree Habitat Could Benefit Wildlife Associated with Tamarisk Scrub. Under the Salton Sea Conservation Strategy, IID would conserve additional water beyond that required for transfer and supply that water to the Sea such that the salinity of the Sea did not exceed 60 ppt until 2030. Provision of this water to the Sea would maintain the surface elevation higher than would occur under the Baseline until 2030 after which the surface elevation would decline at a

faster rate and to a greater degree than under the Baseline (Figure 3.2-B). Relative to the Baseline, implementation of the HCP would reduce the rate and magnitude of decline of the surface elevation until 2030 and therefore would delay the occurrence of changes in the extent of tamarisk scrub adjacent to the Salton Sea resulting from reduced surface elevation. After 2030, the extent of tamarisk scrub adjacent to the Sea could decline to a greater degree than would occur under the Baseline because the surface elevation would decline at a faster rate and to a greater degree than under the Baseline.

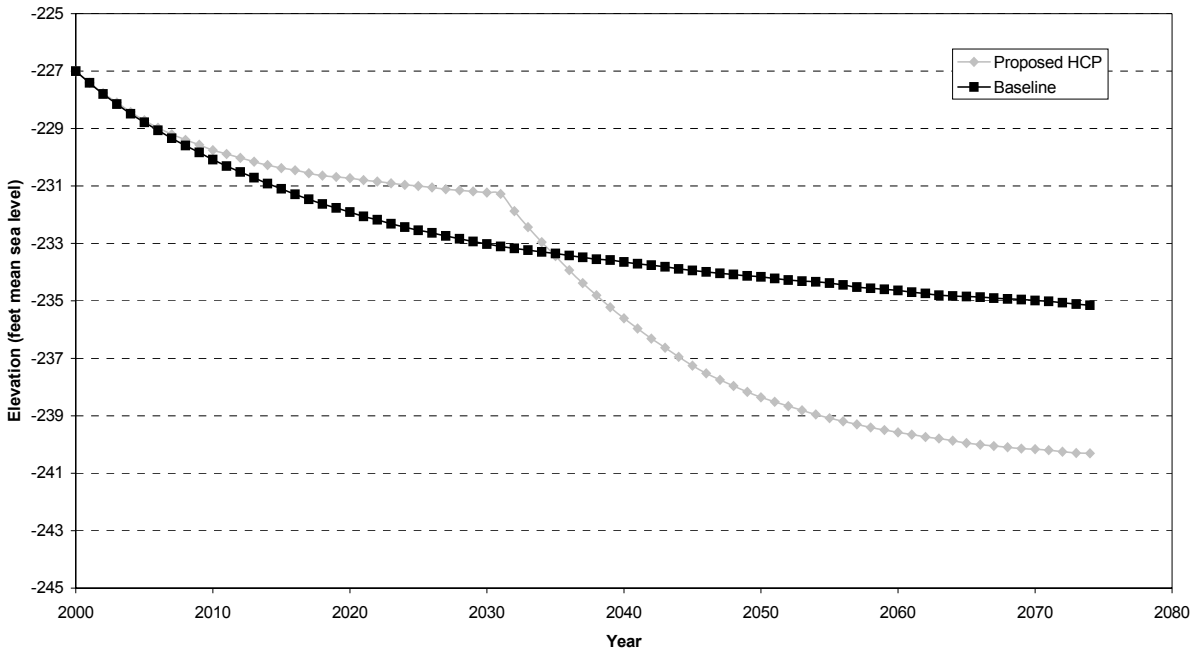


FIGURE 3.2-B
Projected surface elevation under the Baseline and Proposed Project With HCP

As described under Impact BR – 42, there is considerable uncertainty regarding changes in the amount of tamarisk scrub habitat adjacent to the Salton Sea, as the elevation of the Sea declines. To address this uncertainty, under the HCP, IID would monitor the amount of tamarisk scrub adjacent to the Salton Sea. If monitoring shows a net reduction in the amount of tamarisk scrub adjacent to the Sea, IID would create or acquire native tree habitat to replace the net loss of tamarisk. Tamarisk scrub is poor quality habitat, and most of the species associated with tamarisk scrub in the Proposed Project area find optimal habitat in native riparian communities or mesquite bosque. By compensating for net loss in tamarisk scrub with native tree habitat, species associated with tamarisk scrub would benefit from the higher habitat quality of the replacement habitat. (Beneficial impact.)

Impact HCP4-BR – 55. Maintenance of Population Connectivity Would Benefit Desert Pupfish. Desert pupfish occupy the drains that discharge directly to the Sea. Individual pupfish use shoreline pools and the Salton Sea to move among the drains. As the Sea becomes more saline and nears the limit of pupfish tolerance, movement among the drains could cease and isolate populations. Small, isolated populations

are more susceptible to problems associated with reduced genetic variability and effects of random environmental events. To avoid the potential for isolating pupfish populations in the drains, under the HCP, IID would ensure continued genetic exchange among populations. When the salinity of the Salton Sea reaches 90 g/L (or lower as determined by the HCP Implementation Team), IID would implement actions agreed to by USFWS and CDFG to ensure genetic interchange among the pupfish populations in the drains. In addition to ensuring connectivity among pupfish populations, IID would contribute to the recovery of desert pupfish by constructing and managing a Tier 3 refugium pond to support a population of pupfish consistent with the goals of the Desert Pupfish Recovery Plan (Marsh and Sada 1993). This pond would increase the overall desert pupfish population and decrease the risk of loss of genetic diversity and extinction. (Beneficial impact.)

Impact HCP-BR-56. Implementation of the HCP Would Delay Changes in the Invertebrate Community of the Salton Sea and Responses of the Shorebird and Other Waterbird Community From Water Conservation and Transfer. Implementation of the Salton Sea Conservation Strategy would delay the changes in the invertebrate community and the responses of the shorebirds and other waterbirds using the Salton Sea described for the water conservation and transfer project (See Impacts BR-43 and 44). Figure 3.2-C shows the years in which the salinity tolerance of invertebrates in the Salton Sea would be exceeded under the Baseline, Proposed Project without the HCP and Proposed Project with the HCP. As shown in Figure 3.2-C, the HCP would delay exceedence of the tolerance limits of invertebrates with salinity tolerances below 60 ppt relative to the Baseline. For example, under the Baseline, the salinity tolerance of pileworms would be exceeded in 2008 but would exceedence of this species' threshold would occur one year later under the HCP. For invertebrates with higher salinity tolerances, the HCP would delay the exceedence of these thresholds relative the Proposed Project without the HCP. Implementation of the HCP would have the same qualitative effects as the No Project and Proposed Project on invertebrates and the shorebird and waterbird community using this resource. For the same reasons as described for the Proposed Project, changes in the invertebrate and bird community using this resource would be less-than-significant (Less-than-significant impact).

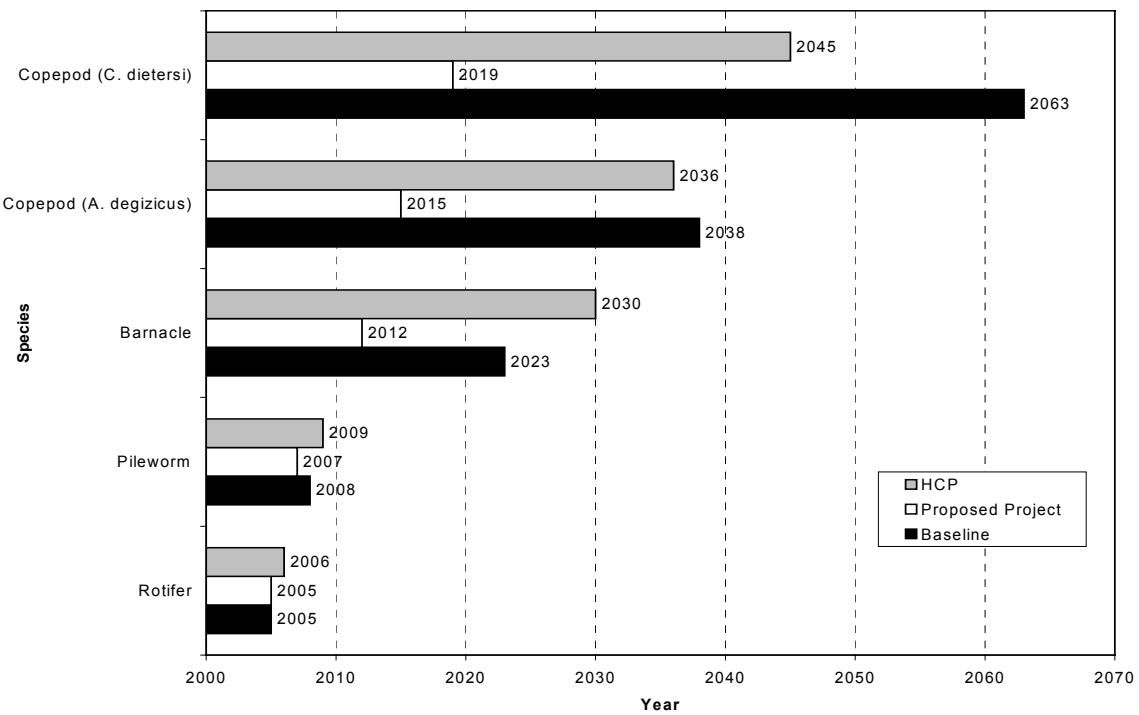


FIGURE 3.2-C
Projected Year in Which Salinity Would Exceed the Tolerances for Invertebrate Species Under the Baseline, Proposed Project Without HCP (Proposed Project) and Proposed Project With HCP (HCP)

Impact HCP-BR-57. The Acreage Mudflat and Shallow Water Habitat Could Change with Implementation of the HCP. As described under Impact BR-49, the acreage of mudflat and shallow water habitat likely will change as the elevation of the Salton Sea declines. Under the HCP, the surface water elevation would decline at a slower rate than projected under the Baseline until 2030 after which the rate of decline would increase (Figure 3.2-B). The water surface elevation of the Salton Sea is projected to reach about -240 ft msl under the HCP, about 5 feet lower than under the Baseline. Based on the bathymetric data from the University of Redlands, under the Baseline, the perimeter of the Salton Sea is projected to fall from the existing length of 100 miles to 95 miles and the acreage of shallow water habitat (< 1 foot deep) is projected to increase from the existing amount of 1,100 acres to about 3,600 acres. At the elevation of –240 ft msl projected at the end of the project with implementation of the HCP, the perimeter of the Salton Sea would be about 87.5 miles and the acreage of shallow water habitat would be about 4,900 acres. Changes in the availability of mudflat and shallow water habitat would be the same as described for Proposed Project (Impact BR-49) and would not result in significant impacts. (Less than significant.)

~~***HCP (Salton Sea Portion) Approach 2: Use of Conserved Water as Mitigation***~~

~~Under Approach 2, IID would conserve additional water (beyond that required for transfer) and use it as mitigation water to offset the inflow reduction to the Salton Sea. In this way, IID would avoid any changes in inflow to the Sea from conservation~~

~~and transfer of water. Thus, changes in the salinity, surface elevation, and surface area of the Sea under Approach 2 would be the same as the No Project alternative. The response of biological resources to change in salinity and surface elevation would be the same as described for the No Project alternative. By avoiding changes in inflow to the Sea from water conservation, this approach would avoid impacts to biological resources of the Sea.~~

Section 3.2.4.4, subsection *Reduced Sea Elevation Could Affect Colonial Nest/Roost Sites*, second paragraph on page 3.2-166.

Reduced Sea Elevation Could Affect Colonial Nest/Roost Sites. The Salton Sea provides nest and roost sites for colonial nesting/roosting birds. As described under the Proposed Project, colonial nest/roost sites that are islands or snags surrounded by water are separated from the mainland by only a few feet of water. Under the No Project alternative, the water surface elevation of the Salton Sea would decline, connecting colonial nest and roost sites to the mainland. Under the Baseline, the water surface elevation is projected to fall 3 feet by 2010 and 4 feet by 2015. This reduction in surface elevation would connect sites, including Mullet Island, used by ground-nesting birds for nesting and roosting, to the mainland. Snags used by herons and egrets would no longer be surrounded by water during the same time period (i.e., around 2010). Colonial nesting/roosting birds could abandon islands and snags when they are no longer surrounded by water.

The colony of double-crested cormorants on Mullet Island could be abandoned when the island becomes connected to the mainland. Mullet Island currently supports the largest breeding colony of double-crested cormorants on the West Coast (Point Reyes Bird Observatory 1999), although this colony was only recently established in 1999. Prior to establishment of this colony, small nesting colonies of double-crested cormorants were present at the north end of the Salton Sea. The origin of the birds forming this colony are uncertain. Further, the reasons for the sudden establishment of this large colony are unclear particularly considering that the island has been available for many years and food (fish) has been abundant. The potential effect of the loss of the cormorant colony at Mullet Island on the West Coast population of double-crested cormorants is uncertain. Some or all of the birds could move to another location, if available (for example in the Gulf of California). Alternatively, some or all of the birds could fail to find other nesting areas and the West Coast population could be reduced. Given that the colony at Mullet Island only recently became established, it is unlikely that the long-term persistence of the West Coast population of double-crested cormorants would be threatened if cormorants abandoned Mullet Island.

For gull-billed terns and black skimmers, loss of nesting areas at the Salton Sea as the Sea elevation declines could substantially reduce the species' population in the United States. Gull-billed terns nest at only two locations in the U.S., one of which is the Salton Sea. Skimmers nest at several locations along the California Coast, but the Sea supports the largest number of nesting skimmers and is a unique inland nesting location. Great blue heron and great egret rookeries at the Salton Sea could be abandoned if the snags are not surrounded by water. ~~The colony of double-crested cormorants on Mullet Island could be abandoned.~~ Although the loss of breeding

sites for great blue herons~~,~~ and great egrets~~, and double-crested cormorants~~ could reduce the populations of these species in the Salton Sea area, because they are abundant and widespread species, such a reduction would not adversely affect the long-term persistence of these species.

SECTION 3.5 AGRICULTURE RESOURCES

Section 3.5.4.1, fifth paragraph on page 3.5-11:

If fallowing were implemented as a conservation measure, land would be taken out of crop production on a ~~rotational~~ short-term basis, a long-term basis or even on a permanent ~~fallowing~~basis such as land retirement. For the purpose of the EIR/EIS two categories of fallowing are defined; rotational fallowing and non-rotational fallowing. Rotational fallowing is defined as keeping land out of agricultural production for less than four years. Non-rotational fallowing is defined as any fallowing where agricultural land is kept out of production for more than four years. Conserving water by non-rotational fallowing could result in, or increase the probability of, agricultural land being converted to something other than agricultural production. To a great extent, the likelihood of fallowed land being converted to urban land use or other non-agricultural land uses would depend on the land's location and length of time it remains fallowed. Lands close to the boundaries of lands currently zoned for urban uses would have a higher probability of converting to non-agricultural land uses. Additionally, lands fallowed for extended periods of time would have a higher probability of being converted to something other than agricultural land use in part because of the cost off reclaiming crop lands that have not been cultivated or irrigated for extended periods. While proximity to urban land used or extended fallowing could make fallowed lands more attractive to development, conversion to a non-agricultural land use would require local approval of the change in zoning and is not part of the Proposed Project. Non-rotational fallowing would also be inconsistent with the classification of Prime farmland and other classified farmland categories as defined for FMMP. Since the majority of the farmland within the IID water service area is classified as one of the FMMP categories, the conservative assumption is made that any non-rotational fallowing would result in a reclassification under the FMMP and would therefore be a significant impact to agricultural resources.

IID has indicated that there is the possibility that a fallowing program to conserve water for transfer could be implemented that would include ~~permanent~~ non-rotational fallowing of crop lands, and that fallowing for mitigation and or to conserve water to meet IOP obligations would be limited to rotational fallowing. ~~In this analysis rotational fallowing indicates that a particular parcel of land would be removed from crop production for no more than three consecutive years.~~ To identify the maximum potential impact to agricultural resources from the Proposed Project and Alternatives~~,~~ the analysis assumes the worst-case scenario, which would entail non-rotational fallowing ~~that all lands fallowed to conserve water for transfer would be permanently fallowed~~. To determine the maximum amount of impacted acreage for a voluntary program such as the Proposed Project, an average level of conservation (i.e., amount of water conserved) per fallowed acre is used. The per-acre conservation rate used in this analysis is 6 AF per fallowed acre.

Section 3.5.4.3, subsection *Impact AR-1*, third paragraph on page 3.5-13:

Impact AR-1: Reclassification of up to 50,000 acres of prime farmland or farmland of statewide importance. With implementation of the Proposed Project, up to a total of 300 KAFY could be conserved for transfer through one or more conservation measures, including fallowing. If fallowing were used as a conservation measure, it could be either ~~rotational~~ non-rotational fallowing or permanent fallowing or a combination of the two. Rotational fallowing would be consistent with planned land uses and would not result in the reclassification of any prime or statewide important farmlands; therefore, no impact to agricultural resources would occur. However, ~~permanent~~ non-rotational fallowing of agricultural land could be used to conserve water for transfer; therefore, the worst case impact of the Proposed Project would be the ~~permanent~~ 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 ~~permanently~~ fallowed on a non-rotational basis, this would represent a significant, unavoidable impact to the agriculture resources of the IID water service area. (Significant, unavoidable impact.)

Mitigation Measure AR-1: The only way to avoid or minimize this impact is to prohibit the use of ~~permanent~~ non-rotational fallowing under the Proposed Project. Otherwise, no mitigation measures have been proposed to avoid or minimize this impact.

Section 3.5.4.3, subsection *Mitigation Measure HCP-AR-2*, third paragraph on page 3.5-14:

Mitigation Measure HCP-AR-2: The only way to avoid or minimize this impact is to prohibit the use of ~~permanent~~ non-rotational fallowing under the HCP (IID Water Service Area Portion). Otherwise, no mitigation measures have been proposed to avoid or minimize this impact.

Section 3.5.4.6, subsection *Impact A3-AR-1*, fourth paragraph on page 3.5-15:

Impact A3-AR-1: Reclassification of up to 38,300 acres of prime farmland or farmland of statewide importance. Alternative 3 includes the conservation of up to 230 KAFY for transfer through one or more conservation measures, including fallowing. If fallowing were used as a conservation measure, it could be either rotation fallowing, ~~permanent~~ non-rotational fallowing or a combination of the two. Rotational fallowing would be consistent with existing land uses and would not result in the reclassification of any prime or statewide important farmlands; therefore, no impacts to agriculture resources would occur. However, ~~permanent~~ non-rotational fallowing could be used to conserve water for transfer; therefore, the worst-case impact of the Alternative 3 would to ~~be the permanent fallowing of~~ fallow up to 38,300 acres of land on a non-rotational basis. This represents up to 8 percent of the total net acreage in agricultural production within the IID water service area. Assuming all acreage was ~~permanently~~ non-rotationally fallowed this would represent a significant, unavoidable impact to the agriculture resources in the IID water service area. (Significant, unavoidable impact.)

Mitigation Measure A3-AR-1: The only way to avoid or minimize this impact is to prohibit the use of ~~permanent~~ non-rotational fallowing under this alternative. Otherwise, no mitigation measures have been proposed to avoid or minimize this impact.

Section 3.5.4.7, subsection Impact A4-AR-1, third paragraph on page 3.5-16:

Impact A4-AR-1: Reclassification of up to 50,000 acres of prime farmland or farmland of statewide importance. Alternative 4 includes conservation of up to 300 KAFY for transfer using fallowing as the exclusive conservation measure. Fallowing could be either rotational fallowing or ~~permanent~~ non-rotational fallowing or a combination of the two. Rotational fallowing would be consistent with existing agricultural land uses and would not result in the reclassification of any prime or statewide important farmlands; therefore there would not be any impact to agriculture resources. However, ~~permanent~~ non-rotational fallowing could be used to conserve water for transfer; therefore, the worst case impact of the Proposed Project would to ~~be the permanent fallowing of~~ fallow up to 50,000 acres of land on a non-rotational basis. This represents up to 11 percent of the total net acreage in agricultural production within the IID water service area. Assuming all acreage was ~~permanently~~ non-rotationally fallowed this would represent a significant, unavoidable impact to the agriculture resources in the IID water service area. (Significant, unavoidable impact.)

Mitigation Measure A4-AR-1: The only way to avoid or minimize this impact is to prohibit the use of ~~permanent~~ non-rotational fallowing under this alternative. Otherwise, no mitigation measures have been proposed to avoid or minimize this impact.

3.6 RECREATION

Section 3.6.3.3 *Salton Sea*, second paragraph on page 3.6-7:

The Salton Sea is the largest inland body of water in California. It occupies an area of land that was once part of ancient Lake Cahuilla, spanning an area approximately 40 miles long and 10 to 15 miles wide. At its deepest point, the Sea is approximately 50 feet deep (BLM 2000c). Visitors travel to the Salton Sea year-round for recreational opportunities. In recent decades, recreational activities in the area of the Salton Sea have moved away from direct water/body contact activities, such as swimming and water skiing, to indirect water/body contact activities, such as sport fishing and boating. This shift in recreational use is directly related to reduced water quality and fluctuating surface elevation (SSA and Reclamation 2000). In addition to water-related recreation, the Salton Sea and surrounding areas provide other popular recreational activities, such as bird watching, wildlife observation, camping, hiking, picnicking, hunting, boating, and fishing. ~~Figure 3.6-3 illustrates recreational sites in and around the Salton Sea.~~

Tthe fishery at the Salton Sea has been described as one of the best and liveliest on the West Coast (Laflin 1995). In 1989, the California Department of Fish and Game found the fishery at the Salton Sea directly contributed 50 to 65 million dollars annually to the local economy (SSA 2000). Ccurrently four popular species of sport fish are known to occur and are actively fished at the Salton Sea. These species

include tilapia, gulf croaker, corvina, and sargo. It has been reported that the best fishing at the Sea occurs from boats, however high and unexpected winds make shoreline fishing more attractive. Some of the most popular shoreline fishing sites surrounding the Sea include the Bombay Beach Marina, Red Hill Marina, Salt Creek Beach, the Jetty at the Salton Sea State Recreation Area, and West Side Jetties (SSA 2000).

The Salton Sea offers various recreational areas and facilities for the previously described popular recreation activities. Figure 3.6-3 illustrates recreational sites in and around the Salton Sea.

The Salton Sea SRA has been operated by the DPR since 1955 and is located along 15 miles of the northeastern shoreline of the Salton Sea. The Salton Sea SRA is a popular site for campers and boaters, offering five campgrounds with approximately 1,400 campsites. There are boat launching and mooring facilities at each of the five campgrounds, swimmers and waterskiers, and anglers also use the recreational opportunities provided (Salton Sea SRA2000). Total visitor use of the Salton Sea SRA has been recorded since 1972; however, specific recreation types have not been categorized. Prior to official records, Salton Sea SRA staff estimate that peak seasonal use occurred at the Sea during 1961-62, with approximately 660,000 visitors. Table 3.6-3 presents visitation data from 1972 to the present.

The Sonny Bono Salton Sea NWR was established in 1930 as a refuge and breeding ground for wildlife. It is operated by USFWS and is located in the southeastern portion of the Salton Sea, with 35,484 acres of salt marsh habitat and open water as well as 2,000 acres of pasture and freshwater marsh (L.L. Bean 2000). An important part of the Pacific Flyway, the Sonny Bono Salton Sea NWR is considered one of the premier bird-watching locations in the nation. Other recreational activities offered include wildlife observation, photography, picnicking, and nature trails (BLM 2000). An additional 535 acres along the southeastern portion of the Sea, known as the Hazard unit, is leased to USFWS and managed along with the Sonny Bono Salton Sea NWR (County of Imperial 1997a). USFWS does not regularly collect and catalogue visitor use information. However, an employee estimated that visitor use at the NWR from 1970 to 1990 averaged 20,000 persons per year; use since 1990 has averaged 32,000 persons per year (Bye 2000).

Salton Sea visitor use estimates are also provided in a study conducted by CIC Research Inc. for the California Department of Fish and Game, titled, "The Economic Importance of the Salton Sea Sportfishery." Visitor use estimates were based on the results of interviews conducted with Salton Sea recreators for use of the Sea during 1987. Telephone interviews were conducted with 14,767 randomly selected southern California households and approximately 2,059 interviews conducted at various Salton Sea locations. The study estimated that 154,600 households used the Salton Sea for recreation purposes at least once during 1987. Based on average household size in the southern California counties, this would represent 389,095 people. The interview results reported recreators used the Salton Sea an average of 6.7 days in 1987, which corresponds to approximately 2.6 million visitor use days (CIC Research Inc. 1989).

Section 3.6.4.1, fourth paragraph on page 3.6-11:

The discussion of impacts at the Salton Sea is based in part on visitor use numbers for the three major recreational facilities at the Salton Sea (Sonny Bono Salton Sea NWR, Salton Sea SRA, and Imperial Wildlife Area [IWA] – Wister unit). Visitor use estimates for the Salton Sea range from 200,000 visitors per year (as reported by visitor use data collected from the Salton Sea SRA, Sonny Bono Salton Sea NWR, and Imperial Wildlife Area (Wister unit) from 1990 to the present) to ~~750,000 visitors per year (as reported by the Administrative Draft Program EIR for the Water Management Plan [CVWD 2000b])~~2.6 million visitors per year (as reported by the Econ~~o~~omic Importance of the Salton Sea Sportfishery Report [CIC Research Inc. 1989]. ~~For~~ This is a large discrepancy, so for the purposes of this analysis, the mean of ~~between~~ these two visitor use estimates ~~numbers~~ (~~475,000~~1.4 million visitors) will be used for calculations involving visitor use at the Salton Sea. In addition, specific use information collected was categorized only for the Wister unit, identifying 15 percent of the total use (142,694 visitors) of the unit for sport fishing. The ~~1989 Administrative Draft Program EIR for the Water Management Plan~~CIC Research document reported different information concerning the percentage of total recreation at the Salton Sea for sport fishing. Of the ~~750,000~~2.6 million visitors reported in 1987, slightly less than 50 percent ~~approximately 400,000~~ of them were identified as coming to the area specifically for fishing (~~53 percent~~approximately 1.3 million). To capture all potential impacts to sport fishery at the Salton Sea, the more conservative number of ~~400,000~~1.3 million visitors coming to the Salton Sea for fishing will be used when addressing sport fishery impacts.

Section 3.6.4.3, subsection *Impact R-5*, third paragraph including Table 3.6-5 on page 3.6-16:

The reductions in surface area would reduce the amount of total water area available for recreation on the Salton Sea. Public recreation use information for the Salton Sea reflects a mean visitor use of ~~475,000~~1.4 million people annually (approximately ~~1,301~~3,836 visitors per day). A calculation of the total number of visitors per day divided by the total number of square miles available under existing conditions yields a current (2002) use density of the Salton Sea of about ~~3.6~~10.5 people per square mile. Under the Baseline, the use density would be about ~~3.8~~11.3 people per square mile. Assuming visitor use numbers remained somewhat constant in the future, calculations of the reduced surface area show that implementation of the Proposed Project would result in an increase from the Baseline density of ~~3.8~~11.3 to a density of ~~5.0~~14.7 people per square mile. This increase in density of slightly more than ~~one person~~three people per square mile of lake area would not significantly impact recreational use on the Sea. Table 3.6-5 presents calculated increases in density for visitor usage of the Salton Sea under the Proposed Project, and the Project alternatives. (Less than significant impact.)

TABLE 3.6-5
Impacts of Reduced Surface Area to Water-Related Visitor Usage at the Salton Sea

	Surface Area (square miles)	Density (visitors per square mile)
Baseline	339	~~3.8~~11.3
Proposed Project (2077)	261	~~5.0~~14.7
Alternative 1 (No Project)	339	~~3.8~~11.3
Alternative 2 (130 KAFY)	305	~~4.3~~12.6
Alternative 3 (230 KAFY)	278	~~4.7~~13.8
Alternative 4 (300 KAFY Fallowing)	314	~~4.1~~12.2

Section 3.6.4.3, subsection *Mitigation Measure R-7*, first paragraph on page 3.6-19:

2) If HCP (Salton Sea Portion) Approach 1 is selected, or if the Salton Sea Habitat Conservation Strategy (Approach 2) results in any elevation decline relative to the Baseline, impacts to the boat launching facilities would occur, so boat launching facilities and access to them must be relocated as the Sea declines to provide ongoing boat launching opportunities. The relocation of these facilities may be temporary and ongoing until the Sea reaches its minimum and stable elevation, at which point permanent facilities must be provided.

(Less than significant impact with mitigation.)

Impact R-8: Reduced sport fishing opportunities. As discussed in Section 3.1, Hydrology and Water Quality, reduced inflow regimes from the Proposed Project would result in an accelerated increase in salinity in the Salton Sea. Impacts to fisheries, including sport fish and aquatic habitat, potentially would result from an accelerated decrease in the number of fish that inhabit the Salton Sea, as described in Section 3.2, Biological Resources. A reduction in the number of sport fish in the Salton Sea would potentially impact sport-fishing opportunities, as measured by a reduction in the number of visitor use days. While the Proposed Project would result in increasing salinity, salinity levels under the Baseline would also continue to rise. Habitat would be impaired, impacting fisheries, including sport fish, and aquatic resources.

~~The Salton Sea Restoration Project Draft EIS/EIR (SSA and Reclamation 2000) states that significant impacts to Salton Sea fisheries, specifically the orangemouth corvina, began in the year 2000. Additional species of fish would be expected to be significantly impacted as salinity increases.~~ Under the Baseline, salinity levels in the Salton Sea would be projected to exceed the maximum salinity (Reclamation 2002) at which sargo, gulf croaker, and tilapia could complete their life cycles in 2008, 2015, and 2023, respectively. The increase in salinity would be expected to reduce the abundance of tilapia but would not extirpate tilapia from the Salton Sea. Tilapia would be expected to persist in lower-salinity habitat supported at the New River and Alamo River deltas. As discussed in Section 3.2, Biological Resources, relative to

the Baseline, the maximum level of conservation (300 KAFY for transfer plus 59 KAFY for the IOP), if achieved through on-farm and system-based measures, would increase the salinity threshold for gulf croaker 5 years earlier (in 2010) and would increase the salinity threshold for tilapia 11 years earlier (in 2012). Salinities detrimental to the ability of sargo to complete its life cycle would be exceeded in 2007, one year earlier than the Baseline. ~~The fisheries decline at the Salton Sea under currently existing conditions has already affected the number of available sport fishery visitor use days at the Salton Sea.~~ The acceleration in fisheries decline at the Salton Sea under the Proposed Project would reduce the number of available sport fishery visitor use days at the Salton Sea at a faster pace.

Approximately ~~400,000~~1.3 million visitors use the Salton Sea for sport fishing every year (~~CVWD et al. 2002~~CIC Research, Inc. 1989). Available information does not specify anglers' preferences for individual species of sport fish; therefore, no preferences are assumed for the purposes of this analysis. Anglers' ability to catch sargo would be impacted 1 year earlier (2007) when compared to the Baseline, while gulf croaker and tilapia would no longer be fishable 5 and 11 years earlier, respectively, if the Proposed Project were implemented. More details on the impact of increased salinity on the fishery population are included in Section 3.2, Impact BR-45 and in Figure 3.2-19. Acceleration of the decline of sport fisheries would be considered a less than significant biological impact; however, it is a significant impact to recreation because it substantially decreases the opportunity for sport fishing by accelerating the decline projected under the Baseline. (For information on socioeconomic impacts to the Salton Sea as a result of the Proposed Project, refer to Section 3.14, Socioeconomics.) (Significant, unavoidable impact.)

Section 3.6.4.3, subsection *Mitigation Measure R-10*, fourth paragraph on page 3.6-21:

2) If HCP (Salton Sea Portion) Approach 1 is selected, or if Approach 2 results in any elevation decline relative to the Baseline, impacts to the camping facilities would occur, so these must be relocated as the Sea declines to provide ongoing camping opportunities. The relocation of these facilities may be temporary and ongoing until the Sea reaches its minimum, stable elevation, at which point permanent facilities must be provided.

Section 3.6.4.4, subsection *Reduction in Salton Sea area available for water-related recreation*, third paragraph on page 3.6-22:

The reductions in surface area would reduce the amount of total water area available for recreation on the Salton Sea. Public recreation use information for the Salton Sea reflects a mean visitor use of ~~475,000~~1.4 million people annually (approximately ~~1,301~~3,836 visitors per day). A calculation of the total number of visitors per day, divided by the total number of square miles available under the Baseline, yields a use density for the Salton Sea of about ~~3.8~~11.3 people per square mile, assuming visitor use numbers remained somewhat constant 75 years in the future. Use density under Alternative 1, No Project, would be the same as for the Baseline.

Section 3.6.4.4, subsection *Impact A2-R-2*, second paragraph on page 3.6-24:

The reduction in surface area would reduce the amount of total water area available for recreation on the Salton Sea, increasing the visitor use density from ~~3.8~~11.3 people per square mile under the Baseline to ~~4.3~~12.6 people per square, an increase of only ~~0.5~~1.3 people per square mile. This small increase in density would not be anticipated to significantly impact the ability of Salton Sea visitors to recreate at the Salton Sea. (Less than significant impact.)

Section 3.6.4.4, subsection *Impact A2-R-5*, second paragraph on page 3.6-25:

~~The fisheries decline at the Salton Sea under existing conditions has already affected the number of available sport fishery visitor use days at the Salton Sea.~~ The acceleration in fisheries decline at the Salton Sea under Alternative 2 would reduce the available number of sport fishery visitor use days at the Salton Sea at a faster pace.

Approximately ~~400,000~~1.3 million visitors use the Salton Sea for sport fishing every year (~~CVWD et al. 2002~~CIC Research Inc. 1989). Available information does not specify anglers' preferences for individual species of sport fish; therefore, no preferences are assumed for the purposes of this analysis. Under Alternative 2, anglers' ability to catch sargo would be impacted 1 year earlier, compared to Baseline conditions; however, gulf croaker and tilapia would be unavailable or less available for sport fishing 5 and 10 years earlier, respectively, if this alternative were implemented. More details on the impact of increased salinity on fish populations are included in Section 3.2, Impact BR-45, and Figure 3.2-19. Acceleration of the decline of sport fisheries is considered a less than significant biological impact; however, it is a significant impact to recreation because it substantially decreases the opportunity for sport fishing. (Significant and unavoidable impact.)

Section 3.6.4.6, subsection *Impact A3-R-3*, second paragraph on page 3.6-27:

The reduction in surface area would reduce the amount of total water area available for recreation on the Salton Sea, resulting in an increase in the visitor use density from ~~3.8~~11.3 people per square mile under the Baseline to ~~4.7~~13.8, an increase of less than ~~one person~~three people per square mile. This small increase in density is not anticipated to significantly impact the ability of Salton Sea visitors to recreate at the Salton Sea. (Less than significant impact.)

Section 3.6.4.6, subsection *Impact A3-R-6*, second paragraph on page 3.6-28:

~~The fisheries decline at the Salton Sea under existing conditions has already affected the available sport fishery visitor use days at the Salton Sea.~~ The acceleration in fisheries decline at the Salton Sea under this alternative would reduce available sport fishery visitor use days at the Salton Sea at a faster pace.

Approximately ~~400,000~~1.3 million visitors use the Salton Sea for sport fishing every year (~~CVWD et al. 2002~~CIC Research Inc. 1989). Available information does not specify anglers' preferences for individual species of sport fish; therefore, no preferences are assumed for the purposes of this analysis. Under Alternative 3, anglers' ability to catch sargo would be impacted 2 years earlier (2006) compared to

Baseline conditions, while gulf croaker and tilapia would not be available for sport fishing 5 and 11 years earlier, respectively, if this alternative were implemented. More details on the impact of increased salinity on the fishery population are included in Section 3.2, Impact BR-45, and Figure 3.2-19.

Acceleration of the decline of sport fisheries would be considered a less than significant biological impact; however, it is a significant impact to recreation because it substantially decreases the opportunity for sport fishing. ~~(Significant and unavoidable impact.)~~(Less than significant .) However, the implementation of the Salton Sea Habitat Conservation Strategy would provide mitigation water to the Sea until 2030, thereby avoiding impacts to the sportfishery.

Section 3.6.4.7, subsection *Impact A4-R-5*, first paragraph on page 3.6-31:

Approximately ~~400,000~~1.3 million visitors use the Salton Sea for sport fishing every year (~~CVWD 2000~~CIC Research Inc. 1989). Available information does not specify anglers' preferences for individual species of sport fish; therefore, no preferences are assumed for the purposes of this analysis. No change would occur to the anglers' ability to catch sargo compared to the Baseline; however, gulf croaker and tilapia would no longer be available for sport fishing 3 and 6 years earlier, respectively, if this alternative were implemented. More details on the impact of increased salinity on the fishery population are included in the Section 3.2, Impact BR-45, and Figure 3.2-19. Acceleration of the decline of sport fisheries would be a less than significant biological impact; however, it would be a significant impact to recreation because it would substantially decrease the opportunity for sport fishing. (Significant and unavoidable impact.)

SECTION 3.7 AIR QUALITY

Section 3.7.3.2, subsection *Meteorological Conditions*, second paragraph on page 3.7-14 (refer to Section 4.3 of this document for new Figures 3.7-5a and 3.7-5b):

Wind speed and directional frequency data were obtained from the Imperial County Air Pollution Control District for the years 2000 and 2001 at Niland, California. Niland is located east of the Salton Sea in Imperial County, and is considered representative of the winds that could generate dust on the exposed shoreline of the Salton Sea. The anemometer height at the Niland station is 10 meters.~~California Irrigation Management Information System (CIMIS), which operates two meteorological stations near the Salton Sea. Station 154 is near Bombay Beach (along the northeast shoreline), and Station 127 is near the boat ramp north of Salton City (along the southwest shoreline). Prevailing winds during the winter, spring, and fall are from the northwest. During the summer, winds shift and are more frequently from the northeast.~~

~~A w~~Windrose diagrams of conditions at ~~Station 154 is~~Niland are provided in Figures 3.7-5a and 3.7-5b for 2000 and 2001, respectively. ~~This diagram summarizes wind conditions during 1998 and 1999, which are the only two years of available data.~~ Measurements were obtained for ~~84.5~~74 percent of all hours during ~~this period~~2000 and 89 percent of all hours in 2001. ~~West-southwest to north-~~

~~northwest~~Southeast winds were the most frequent at this station, with high wind events usually from the west~~-southwest to northwest~~.

The windroses for Niland show that the average hourly wind speed exceeded 8.5 m/s (19 mph) about 4 percent of the time in 2000 and 3 percent of the time in 2001. The wind speed exceeded 11.0 m/s (25 mph) about 1 percent of the time in 2000 and 1 percent of the time in 2001. Although the precise wind speed needed to generate windblown dust at the Salton Sea is not known, research from Owens Lake suggests that wind speeds exceeding 17 mph may be sufficient to generate dust.~~The windrose diagram indicates that wind speed measurements were below 7 meters per second for all hours.~~

~~A windrose diagram of conditions at Station 127 is provided in Figure 3.7-6. This diagram summarizes wind conditions from 1995 through 1999, which are the only 5 years for which data are available. Measurements were obtained for 83.1 percent of all hours during this period. West to east-northeast winds were the most frequent at this station, although east-southeast winds were also common. High wind events were usually from the west-southwest to northwest. The windrose diagram indicates that wind speed measurements were below 7 meters per second for all hours.~~

Section 3.7.3.3, fifth paragraph on Page 3.7-14:

The Salton Sea geographic subregion, which is also within the SSAB, is located in both Imperial and Riverside Counties. For the purposes of this section of the Draft EIR/EIS, the Salton Sea geographic subregion is defined as the SSAB.~~consists of the Salton Sea plus a 0.5-mile strip of land extending out from the shoreline.~~

Section 3.7.3.4, beginning on the sixth paragraph on Page 3.7-17:

Numerous air quality monitoring stations are located throughout the Project region of influence. Monitoring stations are operated and maintained by local air districts (see ~~Figure 3.7-4~~Figures 3.7-1 through 3.7-3).

Imperial County operates and maintains air quality monitoring stations in Brawley, Calexico (3), El Centro, Niland, Westmorland, and Winterhaven. Riverside County operates and maintains air quality monitoring stations in the Coachella Valley in Indio and Palm Springs. San Diego County operates and maintains 10 monitoring stations throughout the western two-thirds of the county. Monitoring data from San Diego County are included to allow comparison of pollutant concentrations measured throughout the study region.

OZONE

Ozone air quality monitoring data from 1994 through ~~1999~~ 1998 are summarized in Table 3.7-5. Imperial County is a federal and state nonattainment area for ozone. The number of violations of the state and federal ozone standards has decreased since 1994. The increased stringency of the new 8-hour federal ozone standard is shown by the increased number of days during which this standard would have been exceeded relative to the 1-hour ozone standard. The state ozone standard, which is more stringent, was exceeded more frequently than the federal 8-hour standard. The fourth highest ozone concentration during the 3-year period from 1996 and 1998 is

listed as 0.14 ppm, which is slightly above the federal 1-hour ozone standard of 0.12 ppm.

TABLE 3.7-5
~~Ozone Data Summary for Monitoring Stations in Imperial, Riverside (Indio), and San Diego Counties, 1994-1999~~Ozone Data Summary for Monitoring Stations in Imperial, Riverside (Indio), and San Diego Counties, 1994-1998

	Number of Days Standard Exceeded			Ozone Concentrations in ppm				
				1-hour			8-hour	
Year	State 1-hour	Federal 1-hour	Federal 8-hour	Maximum	3 Year 4th High	EPDC	Maximum	3 Year Average 4th High
CAAQS	—	—	—	—	—	—	0.090	—
NAAQS	—	—	—	—	0.120	—	—	0.080
Imperial County								
1998	40	3	16	0.14	0.14	0.142	0.104	0.093
1997	69	10	50	0.16	0.16	0.157	0.120	0.103
1996	69	10	34	0.18	0.18	0.155	0.117	0.103
1995	83	22	49	0.23	0.18	0.163	0.116	0.105
1994	75	8	47	0.18	0.15	0.154	0.116	0.104
Riverside County (Indio: Jackson Street)								
1998	16	2	12	0.134	NA	NA	0.115	NA
1997	0	0	0	0.102	NA	NA	0.070	NA
1996	NA	0	NA	0.118	NA	NA	NA	NA
1995	25	3	17	0.142	NA	0.127	0.111	NA
1994	NA	0	NA	0.124	NA	NA	NA	NA
San Diego County								
1998	47	9	33	0.16	0.14	0.135	0.141	0.102
1997	43	1	16	0.14	0.14	0.132	0.112	0.099
1996	51	2	31	0.14	0.14	0.142	0.117	0.104
1995	96	12	48	0.16	0.15	0.148	0.122	0.108
1994	79	9	46	0.15	0.15	0.147	0.121	0.109

Note: EPDC = expected peak day concentration
NA = not available
ppm = parts per million
Source: CARB 1999b.

Section 3.7.4.3, Table 3.7-12 on page 3.7-28:

TABLE 3.7-12
Estimated Annual Equipment Exhaust Emissions for Construction of On-Farm Measures to Conserve 20 KAFY

		Annual Emissions from Construction Activities (ton/yr)			
Conservation Measures	Applied (acres/yr)	CO	ROC	NO_x	PM_{10}
Tailwater Return/Pumpback Systems	40,000	46.2	6.5	76.8	4.6
Cascading Tailwater	40,000	8.0	1.1	15.9	0.9
Level Basins	40,000	55.7	5.9	60.8	3.5
Shorten Furrows/Border Strip Improvements	40,000	55.7	5.9	60.8	3.5

TABLE 3.7-12
Estimated Annual Equipment Exhaust Emissions for Construction of On-Farm Measures to Conserve 20 KAFY

Conservation Measures	Applied (acres/yr)	Annual Emissions from Construction Activities (ton/yr)			
		CO	ROC	NO_x	PM_{10}
Narrow Border Strips	40,000	11.8	1.1	3.9	0.3
Laser Leveling	40,000	22.4	2.2	23.8	1.6
Multi Slope	40,000	22.4	2.2	23.8	1.6
Drip Irrigation	40,000	101.6	9.7	64.3	4.4

Note: Emission factors from ~~the~~ Table A9-8 on page A9-82 of the SCAQMD CEQA *Air Quality Handbook* were used to estimate exhaust emissions associated with operation of the construction equipment. 20KAFY was selected because this amount represents the maximum construction level anticipated in any given year over the life of the project for construction of conservation measures.

Section 3.7.4.3, Table 3.7-13 on page 3.7-29:

TABLE 3.7-13
Estimated Annual Equipment Exhaust Emissions for Construction of Water Delivery System Measures to Conserve 20 KAFY

Conservation Measures	Units or Miles Assumed	Water Conserved AFY (estimate)	Annual Emissions from Construction (ton/yr)			
			CO	ROC	NO_x	PM_{10}
Lateral Interceptor Systems (Estimated Water Conservation 82,882 AFY)	1 system/yr for 15 years	5,525	16.1 (avg.)	1.6 (avg.)	19.4 (avg.)	1.3 (avg.)
Mid-Lateral Reservoirs (Estimated Water Conservation 5,255 AFY)	1 reservoir/yr for 5 years	1,051	1.9	0.2	2.2	0.1
Seepage Interceptors (Estimated Water Conservation 42,000 AFY)	5 miles/yr for 3 years	14,000	1.3	0.1	1.7	0.1
Conveyance Lining (Estimated Water Conservation 224 AFY)	1.73 miles/yr for 1 year	224	0.2	0.0	0.4	0.0
Total		**20,800**				

Note: Emission factors from Table A9-8 on page A9-82 of the SCAQMD California Environmental Quality Act (CEQA) *Air Quality Handbook* were used to estimate exhaust emissions associated with operation of the construction equipment.

Section 3.7.4.3, subsection *Impact AQ-7*, seventh paragraph on page 3.7-34:

To further consider the potential impact ~~for~~of emissions from the Salton Sea , a comparison was made to existing dry lake beds where dust impacts have been observed. Fortunately, conditions found to produce dust storms on dry salt lake beds, such as Owens Lake, were not found to be present at the Salton Sea. The following three primary factors would be expected to make the situation at the Salton Sea much less severe than at Owens Lake:

- **Soil chemistry**: As a result of the relatively high salinity of groundwater beneath the playa at the Salton Sea, formation of an efflorescent salt crust on the surface of the playa is likely to occur. The soil system at the Salton Sea is predominately sodium sulfate and sodium chloride. These salts do not change in volume significantly with fluctuations in temperature, so the crust at the Salton Sea should be fairly stable and resistant to erosion. This anticipated situation at the Salton Sea is different from similar current situations at Owens and Mono Lakes, where a significant portion of the salinity is in the form of carbonates. The volume of carbonate salts is much more sensitive to temperature fluctuations, and desiccation of these salts produces fines that are readily suspended from playa at these lakes. Therefore, the salt crust on the exposed playa at the Salton Sea should be more stable and less emissive than Owens Lake. Also, distribution of mobile sand on the dry lakebed at Owens Lake is part of what drives high emissions rates, and comparable conditions are not expected at the Salton Sea.

- **Meteorology**: The frequency of high wind events at the Salton Sea is less than at Owens Lake. Therefore, the dust storms at the Salton Sea would be less frequent than at Owens Lake. Table 3.7-4A compares the frequency of high wind speeds at Owens Lake to that of Niland for the same year, 2000. The Owens Lake data were measured from Tower N3, which was located in the southern portion of the dry lakebed in an area of frequent large dust storms. The anemometer height was 10 meters at both the Owens Lake and the Niland stations. The wind frequency table for Owens Lake shows that the average hourly wind speed exceeded 8.5 m/s (19 mph) about 18.9 percent of the time in 2000. The wind speed exceeded 11.0 m/s (25 mph) about 7.9 percent of the time in 2000. A comparison of these results for the Owens Lake station to those for the Niland station show that the Owens Lake station has a substantially greater frequency of higher wind speeds. Therefore, based on these data, the wind conditions at Owens Lake provide a much greater potential for frequent or severe dust events than at the Salton Sea. ~~To substantiate this statement, threshold wind speeds that might be required to initiate erosion of playa soils have been estimated and compared to wind measurements in the area. Threshold velocity values for playas, which consist of soils high in clay and salt content, have been found to be larger than 100 cm/s when disturbed and 150 cm/s when undisturbed (Gillette 1980). Threshold velocities for skirts around playas, which are siltier and have slightly hard crusts, have been found to range from 20 to 60 cm/s when disturbed and 150 cm/s when undisturbed. Based on these threshold velocities, an average roughness height of 1.0 cm, and an anemometer height of 366 cm, wind speeds at the Salton Sea required to initiate erosion of disturbed playa soils would need to exceed 27 knots (kts). Wind speeds required to initiate erosion of undisturbed playa soils would need to exceed 40 kts. Hourly wind data collected from two CIMIS weather stations located north and west of the Salton Sea (Station Nos. 127 and 154, respectively) indicate that wind speed exceeded 22 kts approximately 0.1 to 0.2 percent of the time between 1995 and 1999. The predominant wind direction at the Salton Sea is also favorable; during high wind events at the Sea, it is from the west and northwest, which is perpendicular to the~~

~~orientation of the playa. Dust suspension on the playa of the Salton Sea would be higher if the playa were oriented parallel to the predominant wind direction.~~

TABLE 3.7-4A
Comparison of wind speed frequency at 10 m above the ground surface for Salton Sea and Owens Lake, Year 2000

Site	>8.5 m/s (19 mph)	>11.0 m/s (25 mph)
Niland (near Salton Sea)	4.4%	1.4%
Tower N3 (Owens Lake)	18.9%	7.9%

Section 3.7.4.4, subsection *Water Conservation and Transfer*, first paragraph on page 3.7-37:

With the No Project alternative, water levels and surface area in the Salton Sea would decline. Water levels are projected to decline from an existing level of –228 to –235 msl (a decline of 7 feet) and total surface area is projected to decline from 233,000 to 217,000 acres, exposing about 16,000 acres over the next 75 years. The exposure of this previously inundated area may result in windblown dust as described in Impact ~~AQ-3~~AQ-7.

3.8 CULTURAL RESOURCES

Section 3.8.3.2, subsection *Quechan*, first paragraph, page 3.8-13:

The Quechan lived in dispersed settlements along the Colorado and lower Gila and today, the 33,000-acre Fort Yuma Indian Reservation[1] remains the center of cultural and political life for the 3,000-plus members of the Quechan Nation (Bee 1981, 1983, 1989). Pilot Knob, located near the beginning of the AAC, is the Quechan sacred site, *Avikwalal*. Pilot Knob was the first stop in a four-day ceremonial journey up the Colorado to the creation site at *Avikwame*, near Needles. This symbolic journey, with four major stops, was undertaken in a special *keruk* or memorial ceremony held in remembrance of the first creation given by the culture-giver, *Kumastamxo,* for his father the creator, *Kikumat*. This ceremony was held every four or five years to commemorate the people who had died since the last keruk (Raven and Raven 1986; Ezzo and Altschul 1993; Altschul and Ezzo 1994).

[1] The boundary of the Fort Yuma Indian Reservation, hence its acreage, is currently in litigation before the Special Master in *Arizona v. California*, US Supreme Court Case No. 8, Original.

Section 3.8.3.4, subsection *Archaeological Resources*, first paragraph on page 3.8-21:

Jay von Werlhof's archaeological sensitivity map, revised as of May 17, 1993, (Heuberger [no date]) portrays areas of vastly different probability for finding archaeological sites. Few highly sensitive resources exist within major populated and developed portions of Imperial County (i.e., the areas that have been intensively farmed). Important exceptions include the New and Alamo Rivers, which were extensively used by the Kamia as late as the mid-1800s. Highly sensitive areas include the east and west shorelines of former Lake Cahuilla; lower Borrego Valley east to Highway 86; the area around Ocotillo; part of the Pilot Knob Mesa east of Glamis; and the easternmost part of the county, including the Palo Verde Mountains and the area between Ogilby Road and the Colorado River. The only non-agricultural areas not expected to contain resources are in the immediate east and west sides of the Salton Sea and the Algodones Sand Dunes. Areas of moderate to low sensitivity include most of the (mostly unsurveyed) Chocolate Mountains; parts of East Mesa, West Mesa, the Fish Creek Mountains; and the Superstition Mountains. The paucity of water and harsh terrain discouraged major prehistoric use of these regions.

3.9 INDIAN TRUST ASSETS

Section 3.9 has been revised and completely replaces the former Section 3.9:

3.9.1 Introduction and Summary

This section addresses existing Indian Trust Assets (ITAs) in the LCR, Salton Sea, and CVWD service area geographic subregions and potential impacts to ITAs associated with the implementation of federal components of the Proposed Project: (1) Reclamation's approval of the change in the point of diversion of up to 300 KAFY of Colorado River water conserved by IID (this action has the potential to affect ITAs along the LCR); and (2) USFWS' approval of an Incidental Take Permit, under Section 10 of the ESA (this action has the potential to affect ITAs in the IID water service area and AAC and Salton Sea geographic subregions).

ITAs are legal assets associated with rights or property held in trust by the US for the benefit of federally recognized Indian Tribes or individuals. The US, as trustee, is responsible for protecting and maintaining rights reserved by, or granted to, Indian Tribes or individuals by treaties, statutes, and executive orders. All federal bureaus and agencies share a duty to act responsibly to protect and maintain ITAs. Reclamation's policy is to protect ITAs from adverse impacts resulting from its programs and activities whenever possible. Reclamation, in cooperation with Tribe(s) potentially impacted by a given Project, must inventory and evaluate assets, and then mitigate, or compensate, for adverse impacts to the asset. While most ITAs are located on a reservation, they can also be located off-reservation. Examples of ITAs include lands, minerals, water rights, and hunting and fishing rights.

ITAs include property in which a Tribe has legal interest. For example, tribal entitlements to Colorado River water rights established in each of the Basin States pursuant to water rights settlements are considered trust assets, although the reservations of these Tribes may or may not be located along the River. A Tribe may also have other off-reservation interests and concerns that must be taken into account.

Potential effects from CVWD's receipt and use of the conserved water within the CVWD service area under the Proposed Project (QSA Implementation scenario) are assessed programmatically in this EIR/EIS. The potential effects are expected to be addressed as part of an overall assessment of CVWD's Coachella Valley Water Management Plan in a PEIR, which is currently being prepared by CVWD (see Section 1.5.4). The description of potential effects to ITAs (specifically to groundwater) from CVWD's proposed receipt and use of the conserved water in this section is based on information made available by CVWD regarding their planned use of water.

ITA impacts in the IID water service area and AAC geographic subregion are not evaluated in this section because this subregion does not contain any reservation lands or ITAs. ITA impacts in the SDCWA and MWD service area geographic subregions are also not evaluated in this section because no construction or operation of new facilities will occur in these subregions.

Section 3.9.2 describes the applicable regulations and standards that pertain to ITAs. Section 3.9.3 presents the ITA characteristics. Table 3.9-1 below presents a summary of the potential ITA impacts that could result from implementation of the Proposed Project and/or alternatives.

TABLE 3.9-1
Summary of Indian Trust Assets Impacts[1]

Proposed Project: 300 KAFY All Conservation Measures	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only	Alternative 3: 230 KAFY All Conservation Measures	Alternative 4: 300 KAFY Fallowing Only
LOWER COLORADO RIVER				
No impact.	Continuation of existing conditions.	No impact.	No impact.	No impact.
IID WATER SERVICE AREA AND AAC				
No impact.	Continuation of existing conditions.	No impact.	No impact.	No impact.
SALTON SEA				
Impact ITA-1: Exposure of Torres Martinez tribal lands from reduced inflow to Salton Sea after year 2035.	Continuation of Baseline conditions.	**Same as ITA-1.**	**Same as ITA-1.**	**Same as ITA-1.**
SDCWA Service Area				
No impact.	Continuation of existing conditions.	No impact.	No impact.	No impact.
CVWD Service Area				
Impact ITA-2: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of higher TDS Colorado River water.	Continuation of existing conditions.	No impact.	**Same as ITA-2.**	**Same as ITA-2.**

TABLE 3.9-1
Summary of Indian Trust Assets Impacts[1]

Proposed Project: 300 KAFY All Conservation Measures	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only	Alternative 3: 230 KAFY All Conservation Measures	Alternative 4: 300 KAFY Fallowing Only
Impact ITA-3: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of Colorado River water, which contains low levels of perchlorate.	Continuation of existing conditions.	No impact.	**Same as ITA-3.**	**Same as ITA-3.**
MWD Service Area				
No impact.	Continuation of existing conditions.	No impact.	No impact.	No impact.

[1] Programmatic level analysis of USFWS' biological conservation measures in LCR subregion is not summarized in the table because no significance determinations have been made. Subsequent environmental documentation will be required if potential impacts are identified.

Reclamation sent a memorandum to 55 Indian Tribal representatives on April 26, 2001, inviting them to enter into government-to-government coordination pursuant to CEQ regulations for implementing the procedural provisions of NEPA (40 C.F.R. Part 1501); the National Historic Preservation Act; and Executive Order 13175 of November 6, 2000, pertaining to consultation and coordination with Indian tribal governments. The Tribes contacted were those along the LCR and other Tribes within the Project's region of influence in California and Arizona. Reclamation met with CRIT staff to discuss potential impacts to the CRIT from the Proposed Project, and provided a grant to CRIT for technical assistance in review of hydropower impacts from reductions in Colorado River flow below Parker Dam. At CRIT's request, a formal government-to-government consultation meeting will not occur until after this review has been completed. Reclamation and USFWS have also met with the Torres Martinez Band of Cahuilla Indians on a government to government basis regarding potential impacts to the Tribe's resources. USFWS sent a letter to five Tribes located in the Coachella Valley offering assistance regarding the water transfer agreements and HCP. Based on meetings and discussions among the Tribes, US Bureau of Indian Affairs (BIA), USFWS, and Reclamation staff, this section describes ITAs that have the potential to be impacted by the federal actions associated with the Proposed Project (Reclamation 2002).

3.9.2 Regulatory Framework

3.9.2.1 Federal Standards and Regulations

As stated above in Section 3.9.1, Reclamation's policy is to protect ITAs from adverse impacts of its programs and activities whenever possible.

3.9.3 Existing Setting

The following section provides a description of Tribes within the LCR, Salton Sea, and CVWD service area geographic subregions.

3.9.3.1 Lower Colorado River

FORT MOJAVE INDIAN TRIBE

The Fort Mojave Indian Reservation is located in the Lower Basin of the Colorado River where Nevada, Arizona, and California meet. The Tribe possesses PPRs from the mainstem of the Colorado River in all three of the states that contain reservation land, pursuant to the Decree and supplemental Decrees (1979, 1984, and 2000). Since the original Decree was entered in 1964, 1,570 acres of land have been added to the reservation, including 1,102 acres in Arizona and 468 acres in California. Fort Mojave Tribe water rights, including added lands, priority dates, and state where the water rights are perfected, are in Table 3.9-2.

TABLE 3.9-2
Fort Mojave Tribe's Water Rights

Amount (AFY)	Acreage (acres)	Priority Date	State
27,969	4,327	September 18, 1890	Arizona
75,566	11,691	February 2, 1911	Arizona
103,535	**16,018**		**Arizona Subtotal**
16,720	2,587	September 18, 1890	California
12,534	1,939	September 18, 1890	Nevada
132,789	**20,544**		**Total**

In its June 19, 2000 Opinion, the US Supreme Court accepted the Special Master's uncontested recommendation and approved the proposed settlement of the dispute respecting the Fort Mojave Indian Reservation. Under the settlement, the Tribe is awarded the lesser of an additional 3,022 AF of water or enough water to supply the needs of 468 acres. The Tribe's amended PPR for reservation lands located in California is set forth in the supplemental Decree entered by the US Supreme Court on October 10, 2000.

CHEMEHUEVI TRIBE

The Chemehuevi Indian Reservation is located in southern California on the plateau above the shoreline of Lake Havasu. The Tribe possesses PPRs from the mainstem of the Colorado River pursuant to the Decree and supplemental Decrees (1979 and

1984). The Chemehuevi Indian Tribe's water rights, priority dates, and state where the rights are perfected, are as presented in Table 3.9-3.

TABLE 3.9-3
Chemehuevi Indian Tribe's Water Rights

Amount (AFY)	Acreage (acres)	Priority Date	State
11,340	1,900	February 2, 1907	California

COLORADO RIVER INDIAN TRIBES

The Colorado River Indian Reservation is located in southwestern Arizona and Southern California south of Parker, Arizona. The Tribes possess PPRs from the mainstem of the Colorado River pursuant to the Decree and supplemental Decrees (1979 and 1984). The amounts, priority dates, and state where the rights are perfected are presented in Table 3.9-4.

TABLE 3.9-4
Colorado River Tribe's Water Rights

State	Amount (AFY)	Acreage (acres)	Priority Date
Arizona	358,400	53,768	March 3, 1865
Arizona	252,016	37,808	November 22, 1873
Arizona	51,986	7,799	November 16, 1874
Arizona Subtotal	**662,402**	**99,375**	
California	10,745	1,612	November 22, 1873
California	40,241	6,037	November 16, 1874
California	5,860	879	May 15, 1876
California Subtotal	**56,846**	**8,528**	
Total	**719,248**	**107,903**	

QUECHAN INDIAN TRIBE

The Fort Yuma Indian Reservation (Quechan Indian Tribe) is located in southwestern Arizona and Southern California near Yuma, Arizona. The Tribe possesses PPRs from the mainstem of the Colorado River pursuant to the Decree and supplemental Decrees (1979 and 1984). The amount, priority date, and state where the rights are perfected are as presented in Table 3.9-5.

TABLE 3.9-5
Quechan Indian Tribe's Water Rights

State	Amount (AFY)	Acreage (acres)	Priority Date
California	51,616	7,743	January 9, 1884

A US Supreme Court decision issued on June 19, 2000 allows the Tribe to proceed with litigation to claim rights to an additional 9,000 acres of lands that are irrigated. Proving this claim would increase the water rights for the reservation.

COCOPAH INDIAN TRIBE

The Cocopah Indian Reservation is located in southwestern Arizona near Yuma, Arizona. The Tribe possesses PPRs from the mainstem of the Colorado River pursuant to the Decree and supplemental Decrees (1979 and 1984). Since the original Decree was entered in 1964, 775 acres of land were added to the reservation. The amounts, priority dates, and state where the rights are perfected are presented in Table 3.9-6.

TABLE 3.9-6
Cocopah Indian Tribe's Water Rights

State	Amount (AFY)	Acreage (acres)	Priority Date
Arizona	7,681	1,206	September 27, 1917
Arizona	2,026	318	June 24, 1974
Arizona	1,140	190	1915
Total	**10,847**	**1,714**	

The rights listed above include only that water diverted directly from the Colorado River at Imperial Dam. In addition to these rights, the Tribe has numerous well permits that divert groundwater that may be connected to the Colorado River within the boundaries of the US (studies are ongoing). The 1974 PPR for the Cocopah Indian Reservation is unique because of its more recent priority date. The 1979 supplemental Decree specifies that in the event of a determination of insufficient mainstream water to satisfy PPRs pursuant to Article II (B) (3) of the 1964 Decree, the PPRs set forth in paragraphs (1) through (5) of Article II (D) of the Decree must be satisfied first.

The 1984 supplemental Decree recognized the PPR for the Cocopah Indian Reservation dated June 24, 1974, and amended paragraph (5) of Article II (D) of the Decree to reflect this 1974 right. The Tribe is involved in litigation to claim rights to a total of 2,400 acres of lands that are irrigated. Proving this claim would further increase the water rights for the reservation.

The US Supreme Court, in its 1979 supplemental decree, indicated that in the event the boundaries of the Fort Mojave, Chemehuevi, CRIT, Fort Yuma (Quechan Tribe), and Cocopah Indian Reservations are finally determined, the quantities of diversions for those respective reservations are to be computed by determining the net practicably irrigable acres for each reservation and multiplying that number times a unit diversion quantity of AF per irrigated acre for each reservation. The unit diversion quantity for each reservation is presented in Table 3.9-7.

TABLE 3.9-7
Unit Diversion Quantity

Indian Reservation	AF Per Acre Irrigated
Cocopah	6.37
CRIT	6.67
Chemehuevi	5.97
Fort Mojave	6.46
Fort Yuma	6.67

3.9.3.2 Salton Sea

TORRES-MARTINEZ DESERT CAHUILLA INDIANS

The Salton Sea covers approximately 40 percent of the Torres Martinez Reservation. In 1993, the 220,000-acre Salton Sea was officially designated as an impaired water body after the California conducted a water quality assessment. The results of the assessment revealed that salinity, selenium in fish tissue, recreational impacts, and non-point source pollution each contributed to unhealthy contamination levels.

The Torres Martinez Reservation is located on about 24,000 acres along the northern shore of the Salton Sea. The Sea currently inundates about 11,800 acres of the reservation. The Torres Martinez Indians have sought damages and compensation for lands claimed to be inundated or damaged by the Salton Sea. In 1996, a Settlement Agreement was reached to provide compensation to the Tribe and provide a permanent flowage easement to IID and CVWD over the Indian Trust lands. The issue was resolved when legislation required to implement the settlement was passed in 2001 as Title VI of Public Law 106-568 (Torres Martinez Desert Cahuilla Settlement Claims Act).

The US holds the Tribe's existing water rights in trust. In 1908, the US Supreme Court (Winters v. US, 207 US 564) ruled that when Congress created Indian reservations, water rights needed to develop and support these reservations were reserved. The Winters Doctrine has been extended by rulings of the US Supreme Court to include groundwater rights as well as surface water rights. Additional federal and state-reserved water rights are provided through Executive Orders, Supreme Court decisions, statutes and regulations, all of which may apply to the Torres Martinez Reservation (Reclamation and SSA 2000).

No specific hunting or fishing rights other than those granted to all citizens with proper permits from CDFG have been identified in the subregion. CDFG regulates hunting and fishing in and around the Salton Sea, except within the Torres Martinez Indian Reservation, where the Tribe is the primary regulatory and management authority. Significant gold deposits have been located on the Torres Martinez Reservation and are considered an ITA. The Torres Martinez Indians have indicated that they consider cultural resources located within the Torres Martinez Reservation to be ITAs (Reclamation and SSA 2000). While Reclamation policy does not consider prehistoric and historic sites to be ITAs, Reclamation will treat such resources as ITAs if they are located on reservation lands and the Tribe requests the sites are

treated as such. Currently, approximately 70 archaeological resources are known to exist on the Torres Martinez Reservation (Reclamation and SSA 2000). Cultural resources located off-reservation are unlikely to be considered trust assets of the Torres Martinez Band.

The Salton Sea is considered by the Tribe to be one of its most precious natural resources. The Tribe has deep cultural, religious, and natural resource management connections to the Salton Sea, and to its fish and wildlife resources. The Tribe has been working with Reclamation to identify funding for a wetland habitat pilot project. The pilot project would be located on Tribal lands along the shore of the Salton Sea, and would be designed to enhance habitat for shorebirds and other avian and aquatic species.

3.9.3.3 CVWD Service Area

AGUA CALIENTE BAND OF CAHUILLA INDIANS

The Agua Caliente Band of Cahuilla Indians is Cahuilla affiliated, with about 300 Tribal members and a Tribal Office in Palm Springs, California. The Agua Caliente Reservation was named for the Agua Calientes mineral springs and is located in, and adjacent to, the City of Palm Springs. Approximately 40,000 people reside on the Tribal lands that are situated in a checkerboard pattern throughout the area.

Rainfall and snow melt from the mountain regions of the Agua Caliente Reservation causes perennial and intermittent stream flow in surrounding canyons. These canyon streams eventually discharge to the Whitewater River channel downstream of its diversion point. Groundwater-bearing formations are in the eastern desert valley portion of the Reservation, and include unconsolidated alluvial deposits overlying Ocotillo conglomerate, the main water-bearing formation in the Coachella Valley. Groundwater evidence can also be seen in mineral springs at several locations.

Presently, more water is extracted from the groundwater basin than is recharged through rain or run-off. This situation creates a dangerous overdraft condition in an already arid region. Approximately two miles north of the Agua Caliente Reservation, Colorado River water is released to spreading basins in the Whitewater River channel in an effort to recharge groundwater in the upper Coachella Valley.

AUGUSTINE BAND OF MISSION INDIANS

The Augustine Band of Mission Indians is Cahuilla affiliated and has a population of 5 Tribal members. The Augustine Reservation is situated in the lower Coachella Valley with tribal offices located in Coachella, California. The Augustine Band of Mission Indians was established by Executive Order on December 29, 1891. The original Augustine Membership Roll of 11 persons was prepared and approved by the Commissioner of Indian Affairs on April 13, 1956. The last surviving member, Roberta Ann Augustine, died on May 9, 1987, leaving three children and two grandchildren. Maryann Martin, one of her descendants, is the current Tribal Chairperson and resides on the Augustine Reservation.

Groundwater on the reservation is confined or partially confined by impermeable clay lenses that cause horizontal groundwater flows and result in semi-perched

conditions. Irrigation water used to flush salts from the soil in this highly productive agricultural area further contributes to the semi-perched conditions. The lower aquifer of Ocotillo conglomerate serves as the primary water bearing formation in the Coachella Valley.

CABAZON BAND OF MISSION INDIANS

The Cabazon Band of Mission Indians is Cahuilla affiliated and despite the name, was never under the control of the Spanish mission system. Today there are fewer than 50 members of the Cabazon tribe, though the reservation itself covers 1,450 acres in parcels spread over 16 miles in the Coachella Valley, near the City of Indio and 22 miles east of Palm Springs. The largest parcel contains the tribal administration office, the Public Safety Department and several business enterprises. Due to the proximity of the Salton Sea to their reservation, the Cabazon Tribe is interested in the health and revitalization of the Salton Sea and surrounding wetlands.

MORONGO BAND OF MISSION INDIANS

The Morongo Band of Mission Indians is Cahuilla affiliated and has a population of 900, with Tribal Offices in Banning, California. The Morongo Reservation is situated in the foothills of the San Bernardino Mountains at the upstream end of the Whitewater River Watershed.

Perennial and intermittent stream flow, wetlands, and springs on the Morongo Reservation are fed from mountain rainfall and snow melt in the San Bernardino Mountains. Due to the close proximity of the San Andreas Fault system, the Morongo Tribe is involved in several projects to study the relationship between fault movement and changes in local hydrology. Variations in the volume and intensity of stream and spring flows have been observed prior to seismic activity in the region. Theoretically, faults could act as groundwater barriers causing groundwater to surface in springs and contributing to increased stream flow.

TWENTY-NINE PALMS BAND OF MISSION INDIANS

The affiliation of the Twenty-Nine Palms Tribal members is Chemheuvi. There are fourteen tribal members and the Tribal Offices are located in Coachella, California. The Reservation is situated on a 150-acre parcel in the Coachella Valley and a 160-acre parcel in Twenty-Nine Palms near the Joshua Tree National Monument.

The Whitewater River Channel runs through the Twenty-Nine Palms Reservation and is referred to as the Coachella Valley Stormwater Channel in the lower Coachella Valley. The channel conveys flow from wastewater plant discharges, agricultural drainage systems, and large rainfall events to the Salton Sea. Due to violations of bacterial water quality objectives and the threat of toxic bioassy results, the channel is on the Clean Water Act Section 303 (d) list of impaired surface waters.

3.9.4 Impacts and Mitigation Measures

3.9.4.1 Methodology

The federal actions proposed by USFWS and Reclamation associated with the Proposed Project and alternatives were reviewed to determine whether their

implementation would result in adverse effects on ITAs. The evaluation of ITA impacts within the CVWD service area was conducted in response to comments received on the Draft EIR/EIS from USEPA, BIA, and the Torres Martinez Tribe.

Subregions Excluded From Impact Analysis. The IID water service area and AAC geographic subregion is not discussed in this section because it does not contain Indian reservation lands or ITAs. In addition, as described in Section 3.9.1 above, the SDCWA and MWD service area geographic subregions were also excluded from the analysis.

3.9.4.2 Proposed Project

LOWER COLORADO RIVER

Water Conservation and Transfer

There would be no significant, adverse impact to ITAs from approval of the water transfers and change in point of diversion from the Colorado River. Hunting and fishing rights, tribal lands, cultural resources, and tribal water rights would not be affected.

The change in the water diversion point could result in reduced flows between Parker Dam and Imperial Dam. The riparian and marsh resources along the Colorado River are important to many Native American tribes. CRIT has an ongoing riparian restoration program along the River and has expressed concern that the potential reduction in Colorado River water surface elevation could affect its ability to divert water for the restoration program. The fluctuation in water surface elevations that would result from changes in the point of diversion would be within the historic variations experienced on the River. For this reason, CRIT's ability to divert water from the Colorado River should not vary from what has occurred in the past. It is anticipated that the biological conservation measures identified to reduce the impact to sensitive species and riparian /aquatic habitats, some of which could be implemented on tribal lands if agreed to by the Tribe, would also mitigate any impact to biological resources within tribal lands.

The results of the analysis by Reclamation (2002) indicates that salinity levels at Imperial Dam would increase as compared to the Baseline. This change in salinity would have the potential to affect tribal lands located along the Colorado River between Parker Dam and Imperial Dam. However, this increase falls within the normal range of fluctuations that occur along the reach. Further, mitigation in the form of additional salinity control projects would ensure that water quality targets established by the Salinity Control Forum would not be exceeded.

Biological Conservation Measures in USFWS' Biological Opinion

Construction of biological conservation measures has the potential for short-term, localized impacts associated with construction of habitat restoration sites. Although these effects could occur on tribal lands, they would not be substantial and would be short-term in duration. In addition, implementation of the biological conservation measures could convert some lands from agricultural use to backwaters or cottonwood-willow habitat. These habitat areas could be constructed on tribal lands.

However, because the lands would only be provided by willing landowners, this conversion would not result in an adverse effect on tribal land uses (Reclamation 2002).

SALTON SEA

Water Conservation and Transfer

Impact ITA-1: Exposure of Torres Martinez tribal lands from reduced inflow to Salton Sea after year 2035. Under the Proposed Project, including implementation of the Salton Sea Habitat Conservation Strategy, the Salton Sea would be maintained at elevations at or above the Baseline condition until approximately year 2035. After that time, reduced inflow would cause the Sea to decline to about elevation -240 feet msl by the year 2077, compared to the Baseline elevation of -235 feet msl. This would result in the exposure of Tribal land that has been inundated by the Salton Sea. These exposed lands contain natural and cultural resources that are considered by the Torres Martinez to be ITAs. Exposure could result in adverse impacts to cultural resources from vandalism and erosion. Potential beneficial impacts could result from allowing scientific investigations of exposed resources, including archaeological data collection and natural resource exploitation. However, flowage easements held over these lands by CVWD and IID would severely limit most economic development opportunities.

Because of their cultural, religious, and natural resource management connections to the Salton Sea, and to its fish and wildlife resources, the Tribe is quite concerned with any impact to the fishery resource or recreational economy from Project related impacts. The Tribe has expressed concern about increases in wind-blown dust from the exposure of lands previously inundated by the Salton Sea. Although air is not considered an ITA as defined by DOI (303 DM 2, Section 2.5(C)), it is analyzed in this section because air quality is an issue of importance to the Tribe. In the most extreme case, about 24 square miles of additional lands would be exposed as a result of the Proposed Project.

The Torres Martinez also have expressed concerns that exposed land might be spoiled by salts, DDT, or other contaminants in the soils. In 1999, Levine-Fricke conducted a comprehensive study to evaluate sediments underlying the Salton Sea, collecting sediment samples at seventy-three locations in the Salton Sea and its three main tributaries (Levine-Fricke 1999). The study found concentrations of cadmium, copper, molybdenum, nickel, zinc, selenium in the seabed sediment at levels that exceeded maximum baseline concentrations for soils in the western US. The Levine-Fricke study also found that organic chemicals commonly used in agriculture in previous years were not detected at elevated concentrations in the sediment. These chemicals include DDT, many semivolatile organic compounds, chlorinated pesticides and PCBs, organophosphate and nitrogen pesticides, and chlorinated herbicides.

Mitigation Measure ITA-1:

Cultural Resources – Potential impacts from vandalism of exposed cultural resources could be mitigated by control of public access on exposed tribal lands. As part of the air quality mitigation package, IID is proposing to restrict public access

(particularly off-road vehicle use) on exposed soils to the extent practicable and legally possible. IID would cooperate with the Tribe to restrict access to exposed reservation lands if desired by the Tribe.

Fish and Wildlife Resources – With implementation of the Salton Sea Habitat Conservation Strategy, salinity levels in the Salton Sea would be maintained at or below Baseline levels through approximately year 2035. This would maintain the fishery resource for as long as expected under Baseline conditions, so there would be no impact on the recreational fishery at the Sea.

Air Quality – A four-step air quality mitigation plan has been developed by IID to address the potential for increased wind-blown dust (see Section 3.7, Air Quality). With implementation of the mitigation plan, the impact on air quality from exposed Salton Sea lands after year 2035 would be substantially reduced. However, because of the potential for interim impacts (between the time monitoring identifies a problem and implementation of the treatment) and uncertainty regarding with the cost and feasibility of treatment options, this EIR/EIS concludes that air quality impacts will be significant and unavoidable.

Health Effects from PM_{10} Particle Composition – Sufficient data do not exist to pinpoint the locations and extent of elevated metals concentrations in the exposed Salton Sea shoreline sediment. Therefore, a meaningful health risk assessment is not possible at this time. However, because the potential does exist for incremental health risks under the Proposed Project, the air quality monitoring and mitigation plan for the Proposed Project includes the following steps to minimize the potential for health risks:

- Collect additional sediment samples
- Monitor emissions from exposed shoreline
- Monitor airborne concentrations
- Assess potential health risks if necessary
- Apply mitigation if necessary

These five steps are potentially sufficient to suppress the potential for Project-generated health effects from toxic compounds in PM_{10} to less-than-significant levels. However, a level of uncertainty remains regarding whether short-term and long-term air quality impacts and related health effects associated with exposed shoreline can be mitigated to a less-than-significant level. Therefore, this EIR/EIS conservatively concludes that air quality impacts, which include possible health effects, as described above, are potentially significant and unavoidable.

HCP Salton Sea Habitat Conservation Strategy

The Salton Sea Habitat Conservation Strategy would maintain inflows to the Sea at or above Baseline levels until approximately year 2035, thereby avoiding any potential Project-related impacts to ITAs during that time. After that time, reduced inflows could expose portions of the Salton Sea shoreline as described above.

The Salton Sea Habitat Conservation Strategy impacts would be the same for Alternatives 2, 3, and 4; therefore, they are not discussed under each alternative.

CVWD SERVICE AREA

Water Conservation and Transfer

Impact ITA-2: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of higher TDS Colorado River water. As stated above, the potential effects within the CVWD service area are related to local actions and decisions made by CVWD and will be assessed in the PEIR being prepared by CVWD for the Coachella Valley Water Management Plan. Nevertheless, an evaluation of potential adverse effects on ITAs, which could occur as a result of the Proposed Project (QSA Implementation scenario), was conducted to provide a programmatic assessment. The only potential impact to ITAs from delivery of 100 KAFY of Colorado River water to CVWD's Improvement District No. 1 under the Proposed Project's second implementation scenario (QSA Implementation) would be impacts to groundwater resources.

Groundwater recharge with Colorado River water would have a number of beneficial impacts on groundwater in the Lower Coachella Valley including increased water levels, reduced pumping lifts, reduced risk of land subsidence, prevention of groundwater quality degradation from percolating agricultural drainage, and reduced potential for salt water intrusion from the Salton Sea. However, recharge with Colorado River water is anticipated to have an adverse impact on the quality of groundwater extracted near the recharge basins in the Lower Coachella Valley because Colorado River water typically has higher concentrations of TDS and other chemical constituents than the local groundwater currently does. Wells located up to 2 to 3 miles down-gradient of the proposed CVWD recharge sites are most likely to experience elevated TDS compared to existing conditions during the 75-year evaluation period. Groundwater quality near the recharge basins would gradually change over time and may approach the quality of Colorado River water in the affected areas. Since the TDS of the local groundwater in portions of the basin is higher than Colorado River water, the magnitude of the water quality change varies with location. The anticipated TDS increase would not impair any beneficial uses of the water, as defined by established state and federal primary (or health-based) drinking water standards. The higher salinity could exceed recommended secondary water quality standards that deal with aesthetics, such as taste and hardness.

Water quality changes due to recharge with Colorado River water would only affect the groundwater supply of the Torres Martinez tribe. The tribe has two production wells located near one of the potential CVWD recharge sites. The Torres Martinez wells are projected to be impacted within about 20 years after recharge commences. The wells of the Augustine, Cabazon and Twenty-Nine Palms tribes would not experience water quality changes within the 75-year Project term because their wells are located too far from the proposed recharge facilities. The wells of the Morongo and Agua Caliente tribes would not be affected by groundwater recharge because they are located up-gradient from any Colorado River water deliveries associated with the Proposed Project.

Mitigation Measure ITA-2: Mitigation to reduce the higher TDS of Colorado River water to the equivalent quality of groundwater was evaluated and found to be financially and environmentally infeasible (personal communication, Steve Robbins, CVWD, 5/3/02[1]).

Impact ITA-3: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of Colorado River water, which contains low levels of perchlorate. Recharge with Colorado River water could also introduce low levels of perchlorate into the groundwater near the recharge basins. Perchlorate is an inorganic compound used as an oxidant in solid rocket propellants that interferes with the thyroid gland. Perchlorate enters the Colorado River from industrial drainage into Las Vegas Wash, a tributary to Lake Mead, and has recently been detected at levels of 4 to 6 ppb in Colorado River water delivered to the Coachella Valley. The recent installation of facilities to treat drainage from Las Vegas Wash is expected to significantly reduce the level of perchlorate in Colorado River water.

In 1997, the California Department of Health Services (DHS) set an action level for perchlorate at 18 ppb. On January 18, 2002, the action level was lowered to 4 ppb in response to a draft EPA toxicity assessment. An action level is not an enforceable drinking water standard, but rather a health-based advisory level for chemicals that do not have formal maximum contaminant levels (MCLs). DHS establishes an action level as a guidance tool when they do not have a regulation for a contaminant and want to provide some guidance for utilities. If an action level is exceeded, state law requires the public water system operator to inform its governing body and the regulatory agency. DHS recommends but does not require public notification as well. If the concentration In March 2002, the California State Office of Environmental Health Hazard Assessment proposed a public health goal (PHG) of 6 ppb for perchlorate. A PHG is a concentration at which no adverse health effects would occur after a lifetime of consumption of water at this concentration and is the first step in developing a MCL. No federal drinking water MCL has been established for perchlorate, although USEPA has established 1 ppb as the draft reference dose for adults (DHS 2002).

Mitigation Measure ITA-3: Should recharge of Colorado River water cause any Torres Martinez domestic drinking water well to exceed any recognized health-based water

[1] CVWD evaluated the feasibility of reducing the higher TDS of Colorado River water to the equivalent quality of groundwater. Two alternatives were considered: 1) construction of an extension of the SWP into the Coachella Valley; and 2) construction of desalination facilities for Colorado River water. The capital cost of extending the SWP to the Coachella Valley ranged from $205 million to $390 million depending on the size of the facility. Total costs (including capital and operations) would range from $322 to $406/AF in addition to the cost of acquiring SWP water (about $200/AF). The capital cost of desalting Colorado River water ranged from $284 million to $1. 19 billion depending on the size of the facilities and the method of brine disposal. The highest cost identified involved treating all Colorado River water entering the Coachella Valley. The cost of the desalted water ranged from $184 to $330/AF in addition to the costs of acquiring the water supplies and delivering them to customers in the Coachella Valley. On the basis of economics alone, these options were found to be economically infeasible (CVWD unpublished data).

In addition to the economics, each of these options is expected to have significant environmental impacts. Environmental impacts include the disturbance of 300 to 400 acres of desert land for pipeline construction, loss of 500 to 3,500 acres of land for brine evaporation ponds, loss of habitat and biological resources, loss of cultural resources along facility alignments, air quality impacts from construction and generation of additional energy for the pump and treatment facilities, additional energy for pumping SWP water or running the desalters, and impacts related to salt disposal (CVWD unpublished data). Considering both costs and environmental impacts, these mitigation measures are considered infeasible.

quality standard, CVWD will work with the tribe to bring the drinking water supply of the tribe into compliance by either providing domestic water service to the tribe from the CVWD's domestic water system or by providing appropriate well-head treatment.

3.9.4.3 Alternative 1: No Project

LOWER COLORADO RIVER

Under the No Project alternative, Baseline conditions on the LCR would continue and no impacts to ITAs would occur.

SALTON SEA

Under the No Project alternative, water levels in the Salton Sea would decline. Water levels are projected to decline from an existing level of –228 to –235 msl (a decline of 7 feet) over the next 75 years. The exposure of this previously inundated area may result in the impacts that are described in Impact ITA-1. However, less acreage would be exposed under the Baseline as compared to the Proposed Project; therefore, the No Project effects on the resources described in ITA-1 would not be as great.

CVWD SERVICE AREA

Water Conservation and Transfer

Under the No Project alterative, the Proposed Project's second implementation scenario (QSA Implementation) would not occur; therefore, no additional Colorado River water would be provided to CVWD.

3.9.4.4 Alternative 2 (A2): Water Conservation and Transfer of Up To 130 KAFY to SDCWA (On-farm Irrigation System Improvements as Exclusive Conservation Measure)

LOWER COLORADO RIVER

Water Conservation and Transfer

For the same reasons as listed under the Proposed Project, no impacts to ITAs would occur in the LCR geographic subregion with implementation of this alternative.

SALTON SEA

Water Conservation and Transfer

Same Impact as ITA-1: Exposure of Torres Martinez tribal lands from reduced inflow to Salton Sea after year 2035. Potential impacts to ITAs would the same as described for the Proposed Project, although the drop in elevation over the life of the Project, and resultant impacts on ITAs, would not be as great.

CVWD SERVICE AREA

Water Conservation and Transfer

Under Alternative 2, the Proposed Project's second implementation scenario (QSA Implementation) would not occur; therefore, no additional Colorado River water would be provided to CVWD.

3.9.4.5 Alternative 3 (A3): Water Conservation and Transfer of Up To 230 KAFY (All Conservation Measures)

LOWER COLORADO RIVER

Water Conservation and Transfer

For the same reasons as listed under the Proposed Project, no impacts to ITAs would occur in the LCR geographic subregion with implementation of this alternative.

SALTON SEA

Water Conservation and Transfer

Same Impact as ITA-1: Exposure of Torres Martinez tribal lands from reduced inflow to Salton Sea after year 2035. Potential impacts to ITAs would the same as described for the Proposed Project, although the drop in elevation over the life of the Project, and resultant impacts on ITAs, would not be as great.

Mitigation Measure A3-ITA-1: See Mitigation Measure ITA-1.

CVWD SERVICE AREA

Water Conservation and Transfer

Same Impact as ITA-2: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of higher TDS Colorado River water. As stated under Impact ITA-2, potential effects on groundwater within the CVWD service area could occur with implementation of the Proposed Project (QSA Implementation scenario).

Mitigation Measure A3-ITA-2: See Mitigation Measure ITA-2.

Same Impact ITA-3: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of Colorado River water, which contains low levels of perchlorate. As stated under Impact ITA-3, recharge with Colorado River water could introduce low levels of perchlorate into the groundwater in the CVWD service area near the recharge basins.

Mitigation Measure A3-ITA-3: See Mitigation Measure ITA-3.

3.9.4.6 Alternative 4 (A4): Water Conservation and Transfer of Up To 300 KAFY to SDCWA, CVWD, and/or MWD (Fallowing As Exclusive Conservation Measure)

LOWER COLORADO RIVER

Water Conservation and Transfer

For the same reasons as listed under the Proposed Project, no impacts to ITAs would occur in the LCR geographic subregion with implementation of this alternative.

SALTON SEA

Water Conservation and Transfer

Same Impact as ITA-1: Exposure of Torres Martinez tribal lands from reduced inflow to Salton Sea after year 2035. Potential impacts to ITAs would be the same as described

for the Proposed Project, although rate of decline and drop in elevation over the life of the project would not be as great.

Mitigation Measure A4-ITA-1: See Mitigation Measure ITA-1.

CVWD SERVICE AREA

Water Conservation and Transfer

Same Impact as ITA-2: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of higher TDS Colorado River water. As stated under Impact ITA-2, potential effects on groundwater within the CVWD service area could occur with implementation of the Proposed Project (QSA Implementation scenario).

Mitigation Measure A4-ITA-2: See Mitigation Measure ITA-2.

Same Impact ITA-3: Adverse impact to groundwater resources of Torres Martinez Tribe from CVWD's proposed recharge of Colorado River water, which contains low levels of perchlorate. As stated under Impact ITA-3, recharge with Colorado River water could introduce low levels of perchlorate into the groundwater in the CVWD service area near the recharge basins.

Mitigation Measure A4-ITA-3: See Mitigation Measure ITA-3.

3.10 NOISE

Section 3.10.3.2, subsection *Railroad Noise*, fifth paragraph on page 3.10-8:

SPRR is the primary source of rail traffic noise in the IID water service area. In 1990, noise attributable to SPRR traffic, just north of the Riverside County border, was documented by Imperial County (County of Imperial 1997c). The results of this assessment are presented in Table 3.10-6. Subsequent to the compilation of the latter data, operations data for 1992 were reviewed for the main SPRR line and were determined to be similar to those for 1988 (i.e., an average of about 40 trains per day) (County of Imperial 1997c). According to the Imperial County General Plan, the data summarized in Table 3.10-6 are representative of existing conditions. Railroad noise from spur tracks presents much less noise than noise from main rail lines. The SPRR branch to Imperial and Calexico averages four trains per day~~; the branch to Holtville averages four trains per week (County of Imperial 1997c)~~. Figure 3.~~14~~13-1 in Section 3.~~14~~13, Transportation, presents the location of the railroads discussed in this section.

3.13 TRANSPORATION

Section 3.13.3.2, second paragraph on page 3.13-6:

The SPRR main line enters the IID water service area from Yuma, Arizona. The line extends northwest toward Indio before turning west toward Los Angeles. Branch lines and spurs off the main line serve other IID water service area communities~~. One branch line, the Holten Interurban Railroad, provides service from Holtville to El Centro~~ (Reclamation and IID 1994). In addition to the SPRR main line, a regional airport located in Imperial serves the area.

3.14 SOCIOECONOMICS

Section 3.14.1, Table 3.14-1 on page 3.14-2:

TABLE 3.14-1
Summary of Socioeconomic Impacts[1]

Proposed Project: 300 KAFY All Conservation Measures	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only	Alternative 3: 230 KAFY All Conservation Measures	Alternative 4: 300 KAFY Fallowing Only
LOWER COLORADO RIVER				
~~No impact.~~**S-1: Potential increase in power rates at Headgate Rock Dam as a result of decrease in LCR flows.**	Continuation of existing conditions, including the historic variation of change in LCR flows.	**Same as S-1.**~~No impact.~~	**Same as S-1.**~~No impact.~~	**Same as S-1.**~~No impact.~~
IID WATER SERVICE AREA AND AAC				
S-~~1~~2: Net addition of 710 jobs and increase in business output of $55.0 million with conservation by on-farm system improvements and/or water delivery system improvements only.	Continuation of existing conditions, including the historic variation in agricultural employment levels.	**A2-S-~~1~~2: Net addition of 430 jobs and increase in business output of $32.9 million with conservation by on-farm system improvements and/or water delivery system improvements only.**	**A3-S-~~1~~2: Net addition of 660 jobs and increase in business output of $51.2 million with conservation by on-farm system improvements and/or water delivery system improvements only.**	No impact.
S-~~2~~3: Net loss of 1,400 jobs and reduction in business output of $97.5 million with conservation by fallowing only.	Continuation of existing conditions, including the historic variation in agricultural employment levels.	No impact.	**A3-S-~~2~~3: Net loss of 1,090 jobs and reduction in business output of $75.8 million with conservation by fallowing only.**	**A4-S-~~1~~2: Net loss of 1,400 jobs and reduction in business output of $97.5 million with conservation by fallowing only.**
S-~~3~~4: Loss of 290 jobs and reduction in business output of $20 million from conserving IOP water by fallowing only.	Continuation of existing conditions, including the historic variation in agricultural employment levels.	**Same as S-~~3~~4.**	**Same as S-~~3~~4.**	**Same as S-~~3~~4.**
HCP2-S-~~4~~5: Loss of up to 750 jobs and reduction in business output of $52 million from fallowing under HCP Approach 2.	Continuation of existing conditions, including the historic variation in agricultural employment levels.	**Same as HCP2-S-~~4~~5.**	**Same as HCP2-S-~~4~~5.**	**Same as HCP2-S-~~4~~5.**

TABLE 3.14-1
Summary of Socioeconomic Impacts[1]

Proposed Project: 300 KAFY All Conservation Measures	Alternative 1: No Project	Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only	Alternative 3: 230 KAFY All Conservation Measures	Alternative 4: 300 KAFY Fallowing Only
SALTON SEA				
S-~~56~~: Potential decrease in property values after the year 2030.~~Adverse change in economic conditions would be accelerated by up to 11 years.~~	Eventual loss of the majority of the recreation-related economic activity as a result of the deterioration of the biological resources that support current recreation activities. Decreased economic activity from lost recreation industry and lower Sea levels would put downward pressure on property values.	**Same as S-~~56~~.**	**Same as S-~~56~~.**	**Same as S-~~56~~.**
HCP2-S-~~67~~: ~~Total offset~~Offsetting of the adverse economic impacts of accelerating the loss of recreation activities described as Impact S-5.	Eventual loss of the majority of the recreation-related economic activity as a result of the deterioration of the biological resources that support current recreation activities. Decreased economic activity from lost recreation industry and lower Sea levels would put downward pressure on property values.	**Same as HCP2-S-~~67~~.**	**Same as HCP2-S-~~67~~.**	**Same as HCP2-S-~~67~~.**
SDCWA SERVICE AREA				
No impact.	Continuation of existing conditions.	No impact.	No impact.	No impact.

[1] Programmatic level ~~analyses~~ analysis of USFWS' biological conservation measures in LCR subregion ~~and HCP (Salton Sea Portion) Approach 1: Hatchery & Habitat Replacement in Salton Sea subregion are~~is not summarized in the table because no significance determinations have been made. Subsequent environmental documentation will be required if potential impacts are identified.

Section 3.14.3.1, third bullet on page 3.14-9:

- Payment agreements for conserved water; that is, whether SDCWA receives and pays for all of the conserved water under the IID/SDCWA Transfer Agreement, or whether, under the QSA, water is received and paid for by CVWD and/or MWD. A different pricing ~~schedule~~ formula than the one outlined in the IID/SDCWA Transfer Agreement applies if CVWD and MWD are receiving transferred water under the QSA. ~~While the IID/SDCWA Transfer Agreement specifies a fixed pricing schedule for the duration of the Proposed Project, t~~The QSA specifies base prices ~~levels and applies a producer price index to escalate the base prices~~ that are escalated to account for inflation ~~for the~~ over the duration of the Proposed Project. Specifically, if CVWD purchases the first 50 KAFY of water from IID, IID is paid a base price of $50 per AF. If CVWD purchases the second 50 KAFY of water from IID, IID is paid a base price of $125 per AF. If CVWD does not purchase water from IID under the QSA, MWD could purchase the water at a base price of $125 per AF.

Section 3.14.3.3, subsection *Water Conservation and Transfer*, fifth paragraph on page 3.14-16:

~~None of the actions associated with the conservation and transfer of water will have any direct or indirect impact on the socioeconomic resources of the LCR geographic subregion.~~

Impact S-1: Potential increase in power rates at Headgate Rock Dam as a result of decrease in LCR flows. As stated in Section 3.12, Public Services and Utilities, reducing the flow over Parker Dam could result in impacts to power generation capacities at Headgate Rock Dam. The IA EIS describes the average percentage of lost energy due to the IA (changing the point of delivery of approximately 388 KAF) as 5.37 percent. Diversion of up to 300 KAF would result in proportionately less lost energy and therefore less impact on power generation losses. The impact to power generation from changing the diversion point for up to 300 KAFY would fall within the operation range. However, a decrease in power generation could also have a potential impact on Headgate Rock Dam 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 projected, 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 in this EIR/EIS.

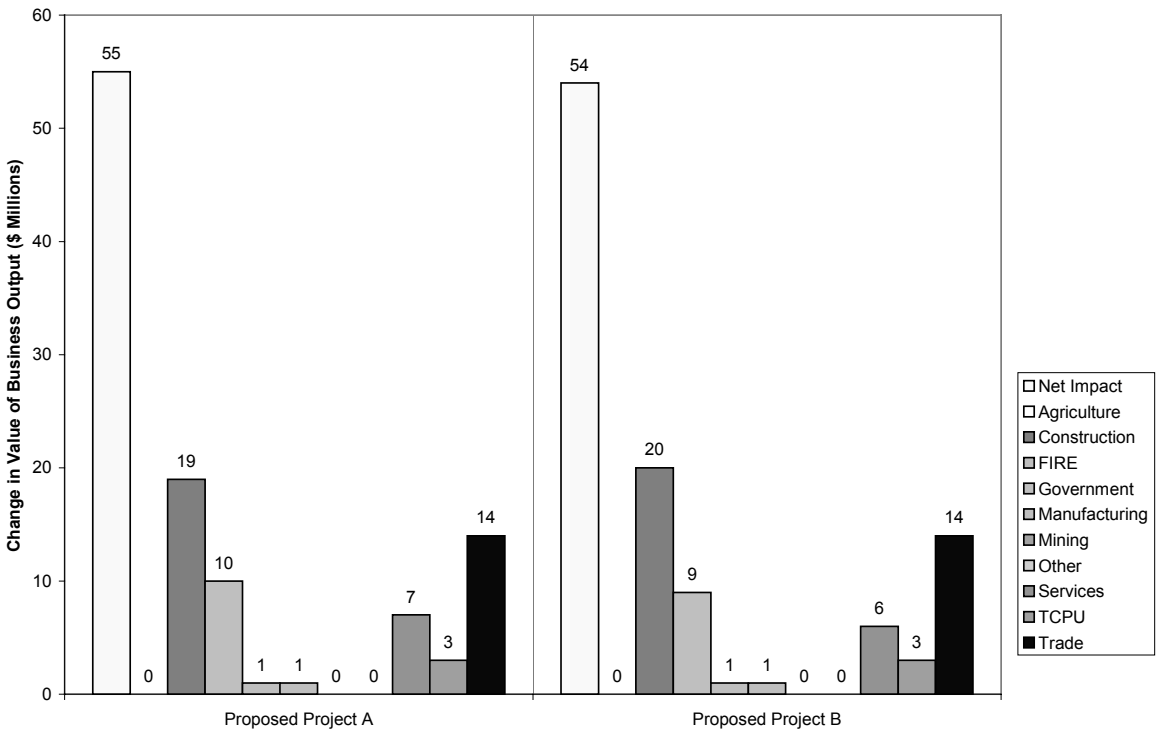
Section 3.14.3.3, subsection *Water Conservation and Transfer*, third paragraph on page 3.14-17:

Impact S-~~1~~2: Net addition of 710 jobs and increase in business output of $55 million with conservation by on-farm irrigation system improvements and/or water delivery system improvements only. Proposed Projects A and B are the program implementations that represent conservation by on-farm irrigation system improvements and/or water delivery system improvements. Figure 3.14-1 shows the anticipated employment impacts for program year-block 7. Net job increases are anticipated to be 710 jobs for

Proposed Project A and 680 for Proposed Project B. Smaller employment gains are anticipated under Proposed Project B because the amount of money being infused into the local economy will be lower under Proposed Project B, which assumes a portion of the conserved water will be transferred to CVWD and/or MWD at a price that is lower that what SDCWA would pay. The construction, trade, and services sectors experience the majority of the employment increases. The net employment increases associated with Proposed Projects A and B represent an increase of about 1.4 percent of the year 2000 total county employment of 48,900.

Section 3.14.3.3, subsection *Water Conservation and Transfer*, Figure 3.14-2 on page 3.14-18:

FIGURE 3.14-2
Net value of business output impacts by economic sector from on-farm irrigation system improvements and/or water delivery system improvements for Proposed Projects A and B program year-block 7

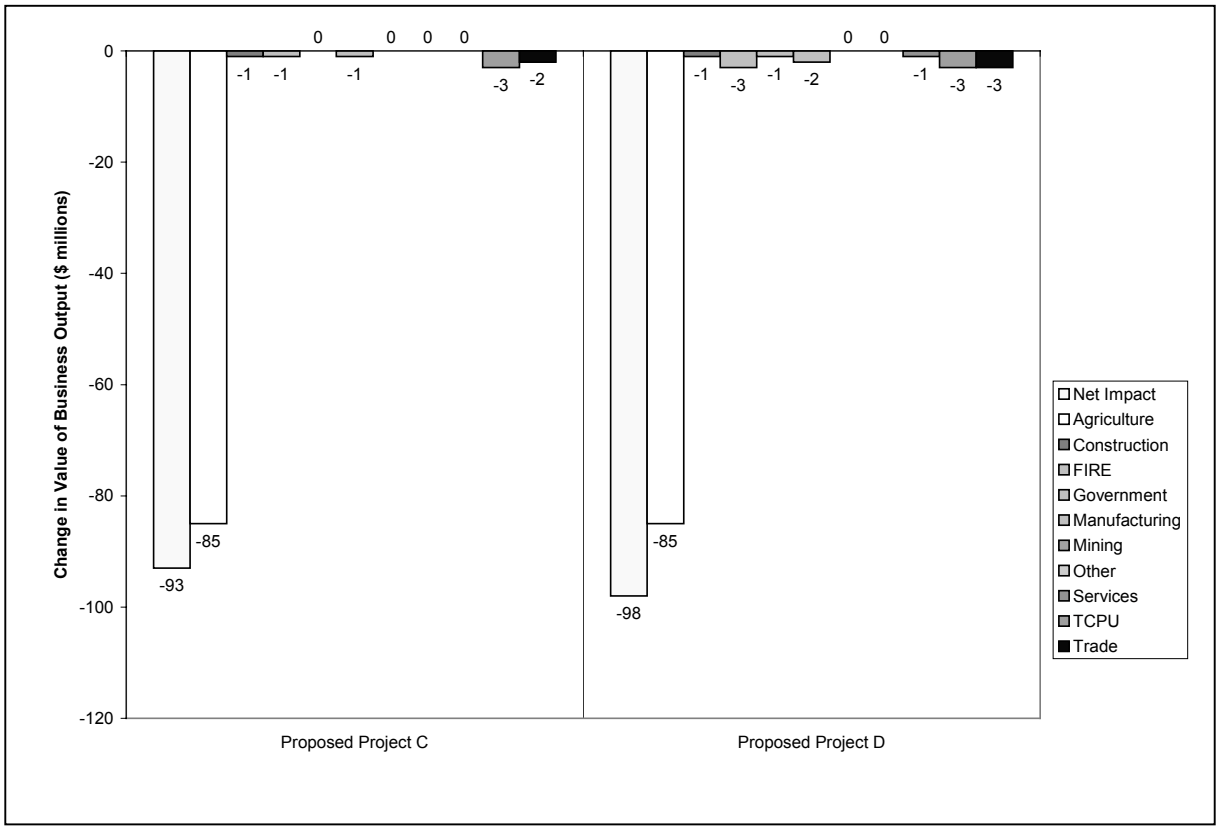


Impact S-~~23~~23: Net loss of 1,400 jobs and reduction in business output of $98 million with conservation by fallowing only. Proposed Projects C and D are the program implementations that represent conservation by fallowing. Figure 3.14-3 shows the anticipated employment impacts for program year-block 7. Net job decreases are anticipated to be 1,330 jobs for Proposed Project C and 1,400 for Proposed Project D. The agriculture sectors experience the majority of the employment decreases. The net employment decreases associated with Proposed Projects C and D represent about 2.6 percent and 2.8 percent, respectively, of the year 2000 total county employment of 48,900. Focusing on the agricultural sectors alone, Proposed Project C and D would result in net agricultural sector job losses of 1,290 and 1,300

respectively, representing about 12 percent of the total county agricultural employment estimate of 11,300 jobs.

Section 3.14.3.3, Figure 3.14-5 on page 3.14-21:

FIGURE 3.14-5
Net value of business output impacts by economic sector from fallowing for Proposed Projects C and D program year-block 7



Inadvertent Overrun and Payback Policy (IOP)

Impact S-~~34~~34: Loss of 290 jobs and reduction in business output of $20 million from conserving IOP water by fallowing only. Conservation of 59 KAFY for the IOP can be accomplished by means of fallowing or other conservation measures. This conservation would be in addition to the up to 300 KAFY that would be conserved for transfer under the Proposed Project. If fallowing is selected, about 9,800 additional acres would be required.

Section 3.14.3.3, subsection *HCP (Salton Sea Portion) Approach 1: Hatchery and Habitat Replacement*, second paragraph on page 3.14-22:

~~**HCP (Salton Sea Portion) Approach 1: Hatchery and Habitat Replacement**~~

~~The selection of HCP (Salton Sea Portion) Approach 1 would result in the fallowing of up to 5,000 acres of farmland in addition to the operation and maintenance of one or more fish hatcheries. The fallowing of 5,000 acres would result in the loss of about 150 jobs in the Imperial County economy, with an associated annual reduction in the value of business output of about $10 million. Along with these adverse impacts~~

~~there would be some beneficial effects associated with the local expenditure of money to construct, operate and maintain the fish hatcheries and ponds that would eventually be built on the fallowed acreage. It is estimated that the total cost of this approach would be between $350 and $800 million. At this time it is unknown how much of this total would recirculate through the Imperial County economy; therefore, it is not possible to make any credible estimate of the eventual beneficial effects of these expenditures.~~

~~In addition to the water that would be made available by fallowing the 5,000 acres to create the ponds, additional water may be required to operate the ponds. At this time the specific location and system design of the ponds is unknown; therefore, the details of how much (if any) additional water would be required are unknown. If fallowing or other conservation measures were required to provide additional water to implement this approach, the impacts of those actions would be addressed in subsequent environmental documentation.~~

Salton Sea Habitat Conservation Strategy ~~HCP (Salton Sea Portion) Approach 2 (HCP2): Use of Conserved Water as Mitigation~~

Impact HCP2-S-~~4~~5: Loss of 750 jobs and reduction in business output of $52 million from fallowing under Approach 2. The selection of the Salton Sea Habitat Conservation Strategy ~~HCP (Salton Sea Portion) Approach 2~~ could result in the fallowing of agricultural lands to obtain water that would be sent to the Salton Sea to replace the lost inflow caused by the conservation and transfer program. If the conservation and transfer program results in the full 300 KAFY being conserved and transferred, up to 25,000 acres could be fallowed for ~~this~~ the Salton Sea Habitat Conservation Strategy~~HCP (Salton Sea Portion) Approach~~. This fallowed acreage would be in addition to any fallowing to conserve water for transfer to SDCWA, CVWD, or MWD. The socioeconomic impact of fallowing for the Salton Sea Habitat Conservation Strategy ~~HCP (Salton Sea Portion) Approach 2~~ could include the loss of up to 750 jobs and a reduction in the value of business output in the Imperial County economy of about $52 million. The lost jobs and lost business output would be concentrated in the agricultural sectors.

Section 3.14.3.3, subsection *Aggregate Effects*, Tables 3.14-10 and 3.14-11 on page 3.14-23:

TABLE 3.14-10
Proposed Project Component and Aggregated Socioeconomic Impacts Using Only On-farm Irrigation System Improvements and Water Delivery System Improvements for Conserving Water for Transfer

	~~Transfer Conservation by Measures Other Than Fallowing and HCP (Salton Sea Portion) Approach 1~~	**Transfer Conservation by Measures Other Than Fallowing and HCP the Salton Sea Habitat Conservation Strategy~~(Salton Sea Portion) Approach 2~~**
Conservation and Transfer Impacts	~~Addition of 710 jobs and increase in value of business output of $55 million.~~	Addition of 710 jobs and increase in value of business output of $55 million.
Fallowing for IOP Impacts	~~Loss of 290 jobs and $16 million in value of business output.~~	Loss of 290 jobs and $16 million in value of business output.
HCP Impacts (IID Water Service Area	~~Loss of approximately 20 jobs and potential small increase in the value of~~	Loss of approximately 20 jobs and potential small increase in the value of

TABLE 3.14-10
Proposed Project Component and Aggregated Socioeconomic Impacts Using Only On-farm Irrigation System Improvements and Water Delivery System Improvements for Conserving Water for Transfer

	~~Transfer Conservation by Measures Other Than Fallowing and HCP (Salton Sea Portion) Approach 1~~	Transfer Conservation by Measures Other Than Fallowing and HCP the Salton Sea Habitat Conservation Strategy~~(Salton Sea Portion) Approach 2~~
Portion)	~~business output.~~	business output.
HCP Impacts (Salton Sea Portion)	~~Loss of up to 150 jobs and $10 million in business output.~~ ~~Short term benefits from construction activities and temporary benefits from maintenance of wildlife habitat and hatcheries.~~	Loss of up to 750 jobs and $52 million in business output.
Aggregate Impact	~~Addition of 250 jobs and increase in value of business output of $29 million.~~	Loss of 350 jobs and $13 million in value of business output.

TABLE 3.14-11
Proposed Project Component and Aggregated Socioeconomic Impacts Using Only Fallowing Conserving Water for Transfer

	~~Transfer Conservation by Fallowing and HCP (Salton Sea Portion) Approach 1~~	Transfer Conservation by Fallowing and the Salton Sea Habitat Conservation Strategy~~HCP (Salton Sea Portion) Approach 2~~
Conservation and Transfer Impacts	~~Loss of 1,400 jobs and decrease in value of business output of $98 million.~~	Loss of 1,400 jobs and decrease in value of business output of $98 million.
Fallowing for IOP Impacts	~~Loss of 290 jobs and $16 million in value of business output.~~	Loss of 290 jobs and $16 million in value of business output.
HCP Impacts (IID Water Service Area Portion)	~~Loss of approximately 20 jobs and potential small increase in the value of business output.~~	Loss of approximately 20 jobs and potential small increase in the value of business output.
HCP Impacts (Salton Sea Portion)	~~Loss of up to 150 jobs and $10 million in business output.~~ ~~Short-term benefits from construction activities and temporary benefits from maintenance of wildlife habitat and hatcheries.~~	Loss of up to 750 jobs and $52 million in business output.
Aggregate Impact	~~Loss of 1,860 jobs and $124 million in value of business output.~~	Loss of 2,460 jobs and $166 million in value of business output.

Section 3.14.3.3, subsection *Water Conservation and Transfer*, first paragraph on page 3.14-24:

SALTON SEA

Water Conservation and Transfer

Impact S-~~5~~6: Potential decrease in property values~~Adverse change in regional economic conditions would be accelerated by up to 11 years~~ after the year 2030. Implementation of Proposed Projects A through D would result in an acceleration of the adverse effects on Riverside and Imperial Counties ~~by up to 11 years~~ as compared to the Baseline conditions (see discussion under Alternative 1, No Project~~, below~~). Under the Proposed Project, all operational boat launching and mooring facilities would become non-operational in year 2007 (see Section 3.6, Recreation); under the Baseline they would become non-operational in year ~~2007~~2010. Also, as described in Section 3.2, Biological Resources, Proposed Project would accelerate the salinization of the Salton Sea, resulting in changes to the Sea's sport fishing industry. Relative to the Baseline, under the Proposed Project, the salinity of the Salton Sea would exceed the levels at which sargo, gulf croaker, and tilapia could successfully reproduce ~~1, 5, and 11 years earlier (i.e., 2007, 2010, and 2012, respectively)~~. As for the ~~baseline~~ Baseline condition, continued reproduction by corvina is uncertain at the Sea's current salinity. Above these salinity levels, the populations of these sport fish would be expected to decline and eventually be eliminated. The present value of the lost business output over this period would be about $790 million (present value of $80 million 1987 dollars escalated at 2.2 percent and discounted at 5.4 percent for the 12 years 2012 to 2023).

However, with implementation of the mitigation measures described in Section 3.6, Recreation, along with the the Salton Sea Habitat Conservation Strategy, the Proposed Project would have no impact to socioeconomic resources derived from recreation activities attributed to the Salton Sea. After the year 2030, depending on the implementation of air quality mitigation measures that involve adding additional water to the Sea (see Section 3.7, Air Quality), the Proposed Project could result in Sea levels lower than those predicted in the Baseline. This drop in Sea level will result in increases in the amount of exposed shoreline. The increase in exposed shoreline along with any real or perceived increases in the magnitude or frequency of dust storms, noxious odors or adverse visual experiences could put downward pressure on the value of personal and commercial properties in communities closely tied to the Salton. Communities that would be most likely to experience such adverse impacts would include Salton City, Bombay Beach, Desert Shores Salton Sea Beach and North Shores.

This annual lost contribution to the economies of the area surrounding the Salton Sea is derived from estimates published in a report to CDFG (CIC 1989). This annual contribution to the regional economy associated with recreational uses of the Salton Sea should be considered an upper bound. It is based on a 1987 survey that estimated annual visitation of 2.6 million visitor days with a daily level of local expenditures of almost $7 per person per day. The report indicates that almost three-quarters of the local expenditures are made on groceries; gasoline and transportation; meals and snacks out; and parking, camping, or R.V. fees.

~~***HCP (Salton Sea Portion) Approach 1: Hatchery and Habitat Replacement***~~

~~The implementation of HCP (Salton Sea Portion) Approach 1 is not anticipated to change the data at which Salton Sea-based recreation activities would become infeasible; therefore, it would not have any socioeconomic impact on the Salton Sea geographic subregion. The potential beneficial impacts of the activities associated with the construction, operation, and maintenance of the hatchery and ponds are discussed in the IID water service area and AAC HCP Approach 1 section.~~

Salton Sea Habitat Conservation Strategy ~~HCP (Salton Sea Portion) Approach 2 (HCP2): Use of Conserved Water as Mitigation~~

Impact HCP2-S-~~6~~7: ~~Total offset~~Offsetting of adverse economic impacts of accelerating the loss of recreation activities described as Impact S-5. The implementation of ~~HCP (Salton Sea Portion) Approach 2~~the Salton Sea Habitat Conservation Strategy would result in the same quantity of water flowing to the Salton Sea as under the Baseline for the Proposed Project and Alternatives 2, 3 and 4~~.~~ up to the year 2030. Therefore the adverse economic impacts of accelerating the demise of sportfishing and other current Salton Sea-based recreation activities (described as Impacts S-~~5~~6~~, A2-S-2, A3-S-3 and A4-S-2~~) would not occur.

HCP impacts would be the same for Alternatives 2, 3, and 4; therefore, they are not discussed under each alternative.

3.14.3.4 Alternative 1: No Project

LOWER COLORADO RIVER

Under the No Project alternative, the existing pattern of socioeconomic conditions in the LCR subregion would be maintained, including the historic variation of change in LCR flows.

Section 3.14.3.3, subsection *Salton Sea*, beginning on the fifth paragraph on page 3.14-25:

This annual contribution to the economies of the area surrounding the Salton Sea is an upper bound, which was derived from estimates published in a report to CDFG (CIC 1989). The contribution It is based on a 1987 survey that estimated annual visitation of 2.6 million visitor days with a daily level of local expenditures of almost $7 per person per day. The report indicates that almost three-quarters of the local expenditures are made on groceries; gasoline and transportation; meals and snacks out; and parking, camping, or R.V. fees.

In addition to anticipated adverse regional economic impacts attributable to the loss of recreation activities, the lower Sea levels predicted would result in an increase in the amount of exposed Salton Sea shoreline. The increase in exposed shoreline along with any real or perceived increases in the magnitude or frequency of dust storms, noxious odors or adverse visual experiences would put downward pressure on the value of personal and commercial properties in communities closely tied to the Salton. Communities that would be most likely to experience such adverse impacts would include Salton City, Bombay Beach, Desert Shores Salton Sea Beach and North Shores.

3.14.3.5 Alternative 2 (A2): Water Conservation and Transfer of Up To 130 KAFY to SDCWA (On-farm Irrigation System Improvements as Exclusive Conservation Measure)

In Alternative 2, IID would conserve and transfer 130 KAFY to SDCWA. This represents the minimum quantity of water that could be conserved and transferred under the terms and conditions of the IID/SDCWA Transfer Agreement. Alternative 2 involves conserving all 130 KAFY of water through on-farm irrigation system improvements. This would require the installation and operation of TRS on 2,441, fields of 80 acres each.

LOWER COLORADO RIVER

Water Conservation and Transfer

Impact A2-S-1: Potential increase in power rates at Headgate Rock Dam as a result of decrease in LCR flows. The same impact to Headgate Rock Dam rates would occur under Alternative 2 as described under the Proposed Project; however, because the amount of water conserved and transferred under Alternative 2 is less than under the Proposed Project, the impacts under Alternative 2 would be less.

IID WATER SERVICE AREA AND AAC

Water Conservation and Transfer

Impact A2-S-~~1~~2: Net addition of 430 jobs and increase in business output of $33 million with conservation by on-farm irrigation system improvements and/or water delivery system improvements only. Figure 3.14-6 shows the employment impacts of Alternative 2. Under Alternative 2, a total of 430 jobs would be created, with the majority in the construction, trade, and services sectors. No sectors of the economy would see decreases in employment. The net increase in employment expected under Alternative 2 is less than 1 percent over year 2000 employment levels.

Section 3.14.3.5, subsection *Water Conservation and Transfer*, first paragraph on page 3.14-27:

Impact A2-S-~~2~~3: Potential decrease in property values after the year 2030~~Adverse change in regional economic conditions would be accelerated by up to 11 years~~. The conservation and transfer of 130 KAFY would result in an acceleration of the adverse effects on Riverside and Imperial Counties ~~by up to 11 years~~, compared to the Baseline conditions (see discussion under Alternative 1, No Project). The present value of lost business output over this period would be about $790 million (present value of $80 million 1987 dollars escalated at 2.2 percent and discounted at 5.4 percent for the 12 years 2012 to 2023).

This annual contribution to the economies of the area surrounding the Salton Sea is an upper bound, which was derived from estimates published in a report to CDFG (CIC 1989). The contribution It is based on a 1987 survey that estimated annual visitation of 2.6 million visitor days with a daily level of local expenditures of almost $7 per person per day. The report indicates that almost three-quarters of the local expenditures are made on groceries; gasoline and transportation; meals and snacks out; and parking, camping, or R.V. fees.

However, with the implementation of the mitigation measures described in Section 3.6, Recreation, along with the Salton Sea Habitat Conservation Strategy, Alternative 2 would have no impact to socioeconomic resources derived from recreation activities attributed to the Salton Sea. After year 2030, depending on the implementation of air quality mitigation measures that involve providing additional water to the Sea (see Section 3.7, Air Quality), Alternative 2 could result in Sea levels lower than those predicted in the Baseline. This potential future decrease in the level of the Salton Sea could put downward pressure property values after the year 2030.

Section 3.14.3.6, second paragraph on page 3.14-28:

Alternative 3B represents the worst-case scenario for this alternative, conserving 230 KAFY by land fallowing. This would require an amendment to the IID/SDCWA transfer agreement which stipulates at least 130 KAFY be conserved by on-farm system improvements. Conserving 230 KAFY would require the fallowing of about 40,850 acres of land. As with Alternative 3A, 130 KAFY would be transferred to SDCWA. Of the remaining 100 KAFY, 50 KAFY would be transferred to CVWD, and the other 50 KAFY would be transferred to CVWD and/or MWD.

LOWER COLORADO RIVER

Water Conservation and Transfer

Impact A3-S-1: Potential increase in power rates at Headgate Rock Dam as a result of decrease in LCR flows. The same impact to Headgate Rock Dam rates would occur under Alternative 2 as described under the Proposed Project; however, because the amount of water conserved and transferred under Alternative 2 is less than under the Proposed Project, the impacts under Alternative 2 would be less.

IID WATER SERVICE AREA AND AAC

Water Conservation and Transfer

Impact A3-S-~~1~~2: Net addition of 660 jobs and increase in business output of $51 million with conservation by on-farm irrigation system improvements and/or water delivery system improvements only. The net impact of conservation by on-farm irrigation system improvements and/or water delivery system improvements is represented by Alternative 3A. Figure 3.14-8 shows the net employment impacts by economic sector. A total of 660 jobs would be anticipated to be created, representing a 1.3 percent increase of year 2000 employment levels. The construction, trade, and services sectors would experience the majority of the beneficial effects, and no economic sectors would experience loss of jobs.

Figure 3.14-9 shows the net increases in the value of business output associated with conserving water by on-farm irrigation system improvements and/or water delivery system improvements. The value of business output would increase by approximately $51 million, with the construction, trade, and service sectors seeing the majority of the beneficial effect. This increased business output represent about a 1 percent increase over the year 2000 estimate of $4.8 billion.

Impact A3-S-~~2~~3: Net loss of 1,090 jobs and reduction in business output of $76 million with conservation by fallowing only. Figure 3.14-10 shows the anticipated employment

impacts for Alternative 3 B, program year-block 7. Net job decreases are anticipated to be 1,090 jobs. The agriculture sectors experience the majority of the employment decreases. The net employment decrease of 1,090 jobs is about 2.2 percent of the year 2000 total county employment of 48,900. Focusing on the agricultural sectors alone, a total of 990 agricultural sector jobs are assumed to be lost, representing about 8 percent of the total county agricultural employment estimate of 11,300 jobs.

Section 3.14.3.6, subsection *Water Conservation and Transfer*, second paragraph on page 3.14-31:

Impact A3-S-~~3~~4: Potential decrease in property values after the year 2030~~Adverse change in regional economic conditions would be accelerated by up to 11 years~~. The conservation and transfer of up to 230 KAFY would result in an acceleration of the adverse effects on Riverside and Imperial Counties ~~by up to 11 years~~, compared to the Baseline conditions (see discussion under Alternative 1, No Project~~, below~~). The present value of the lost business output over this period would be about $790 million (present value of $80 million 1987 dollars escalated at 2.2 percent and discounted at 5.4 percent for the 12 years 2012 to 2023).

Section 3.14.3.6, subsection *Water Conservation and Transfer*, beginning on the first paragraph on page 3.14-32:

This annual lost contribution to the economies of the area surrounding the Salton Sea is derived from estimates published in a report to CDFG (CIC 1989). This annual contribution to the regional economy associated with recreational uses of the Salton Sea should be considered an upper bound. It is based on a 1987 survey that estimated annual visitation of 2.6 million visitor days with a daily level of local expenditures of almost $7 per person per day. The report indicates that almost three-quarters of the local expenditures are made on groceries; gasoline and transportation; meals and snacks out; and parking, camping, or R.V. fees.

However, with the implementation of the mitigation measures described in Section 3.6, Recreation, along with the Salton Sea Habitat Conservation Strategy, Alternative 3 would have no impact to socioeconomic resources derived from recreation activities attributed to the Salton Sea. After year 2030, depending on the implementation of air quality mitigation measures that involve providing additional water to the Sea (see Section 3.7, Air Quality), Alternative 3 could result in Sea levels lower than those predicted in the Baseline. This potential future decrease in the level of the Salton Sea could put downward pressure property values after the year 2030.

3.14.3.7 Alternative 4 (A4): Water Conservation and Transfer of Up To 300 KAFY to SDCWA, CVWD, and/or MWD (Fallowing As Exclusive Conservation Measure)

LOWER COLORADO RIVER

Water Conservation and Transfer

Impact A4-S-1: Potential increase in power rates at Headgate Rock Dam as a result of decrease in LCR flows. The same impact to Headgate Rock Dam rates would occur under Alternative 4 as described under the Proposed Project.

IID WATER SERVICE AREA AND AAC

Water Conservation and Transfer

Impact A4-S-~~1~~2: Net loss of 1,400 jobs and reduction in business output of $98 million with conservation by fallowing only. Alternative 4 assumes that a total of 300 KAFY would be conserved by fallowing. For Alternative 4 to be implemented, the IID/SDCWA Transfer Agreement would have to be modified. These are the same as the worst-case conditions analyzed for the Proposed Project, in which fallowing is used to conserve all water. The reader is directed to the impact discussion of Proposed Projects C and D for the impacts of Alternative 4.

SALTON SEA

Water Conservation and Transfer

Impact A4-S-~~2~~3: ~~Adverse change in regional economic conditions would be accelerated by up to 11 years~~Potential decrease in property values after the year 2030. The conservation and transfer of up to 300 KAFY would result in an acceleration of the adverse effects on Riverside and Imperial Counties ~~by up to 11 years~~ as compared to the Baseline conditions (see discussion under Alternative 1, No Project~~, below~~). The present value of the lost business output over this period would be about $790 million (present value of $80 million 1987 dollars escalated at 2.2 percent and discounted at 5.4 percent for the 12 years 2012 to 2023).

This annual lost contribution to the economies of the area surrounding the Salton Sea is derived from estimates published in a report to CDFG (CIC 1989). This annual contribution to the regional economy associated with recreational uses of the Salton Sea should be considered an upper bound. It is based on a 1987 survey that estimated annual visitation of 2.6 million visitor days with a daily level of local expenditures of almost $7 per person per day. The report indicates that almost three-quarters of the local expenditures are made on groceries; gasoline and transportation; meals and snacks out; and parking, camping, or R.V. fees.

However, with the implementation of the mitigation measures described in Section 3.6, Recreation, along with the Salton Sea Habitat Conservation Strategy, Alternative 4 would have no impact to socioeconomic resources derived from recreation activities attributed to the Salton Sea. After year 2030, depending on the implementation of air quality mitigation measures that involve providing additional water to the Sea (see Section 3.7, Air Quality), Alternative 4 could result in Sea levels lower than those predicted in the Baseline. This potential future decrease in the level of the Salton Sea could put downward pressure property values after the year 2030.

3.15 ENVIRONMENTAL JUSTICE

Section 3.15 has been revised and completely replaces the former Section 3.15:

3.15.1 Introduction and Summary

This analysis was prepared in compliance with Presidential Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (EO 12898), dated February 11, 1994. The purpose of this analysis is to determine whether disproportionately high and adverse human health or environmental effects of the Proposed Project or Alternatives are likely to fall on minority and/or low-income populations. This analysis focuses on the locations of high and adverse impacts (as reported in the various environmental analysis sections of this EIR/EIS) and examines the racial and income characteristics of the populations affected by these impacts. This analysis also discusses the specific outreach efforts made to involve minority and low-income populations in the decision-making process.

No high and adverse impacts would occur in the MWD service area, SDCWA service area, or LCR subregions; therefore, these subregions are not included in the impact discussions below. Refer to the IA EIS for further details on minority and low-income populations in the LCR subregion. Table 3.15-1 summarizes the high and adverse effects that could result in environmental justice issues with implementation of the Proposed Project and Alternatives.

TABLE 3.15-1
Summary of Environmental Justice Issues

Proposed Project: 300 KAFY All Conservation Measures	**Alternative 1: No Project**	**Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only**	**Alternative 3: 230 KAFY All Conservation Measures**	**Alternative 4: 300 KAFY Fallowing Only**
LOWER COLORADO RIVER				
No impacts.	Same as Baseline condition.	No impacts.	No impacts.	No impacts.
IID WATER SERVICE AREA AND AAC				
Impact EJ-1: Environmental Justice Effects from Net Loss of up to 2,440 Jobs from Fallowing under Conservation Program, IOP, and the Salton Sea Habitat Conservation Strategy.	Environmental Justice Effects from Baseline Levels of Fallowing.	**Impact A2-EJ-1: Environmental Justice Effects from Net Loss of 1,040 Jobs from Fallowing under IOP and the Salton Sea Habitat Conservation Strategy.**	**Impact A3-EJ-1: Environmental Justice Effects from Net Loss of 2,130 Jobs from Fallowing under Conservation Program, IOP, and the Salton Sea Habitat Conservation Strategy.**	**Same as EJ-1.**
SALTON SEA				

TABLE 3.15-1
Summary of Environmental Justice Issues

Proposed Project: 300 KAFY All Conservation Measures	**Alternative 1: No Project**	**Alternative 2: 130 KAFY On-farm Irrigation System Improvements Only**	**Alternative 3: 230 KAFY All Conservation Measures**	**Alternative 4: 300 KAFY Fallowing Only**
Impact EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.	Environmental Justice Effects from Windblown Dust as a Result of Baseline Sea Level Decline of 7 feet.	**Impact A2-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.**	**Impact A3-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.**	**Same as EJ-2.**
SDCWA SERVICE AREA				
No impacts.	Same as Baseline condition.	No impacts.	No impacts.	No impacts.
CVWD SERVICE AREA				
Same as EJ-2.	Environmental Justice Effects from Windblown Dust as a Result of Baseline Sea Level Decline of 7 feet.	**Impact A2-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.**	**Impact A3-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.**	**Same as EJ-2.**
MWD SERVICE AREA				
No impacts.	Same as Baseline Condition.	No impacts.	No impacts.	No impacts.

Notes:
[1]The Salton Sea Habitat Conservation Strategy was formerly named, "HCP Approach 2."

3.15.2 Regulatory Framework

3.15.2.1 Federal Regulations and Standards

EO 12898, "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations" issued by President Clinton in 1994, provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations." In the accompanying memorandum, President Clinton urged federal agencies to incorporate environmental justice principles into analyses prepared under the NEPA and emphasized the importance of public participation in the NEPA process.

The President's Council on Environmental Quality (CEQ) has oversight of the federal government's compliance with EO 12898 and NEPA. CEQ, in consultation with EPA and other affected agencies, has developed a guidance document (Environmental Justice Guidance Under the National Environmental Policy Act,

CEQ 1997) to further assist federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.

Neither EO 12898 nor CEQ 1997 prescribes any specific format for examining environmental justice. Instead, CEQ 1997 recommends that agencies "integrate analyses of environmental justice concerns in an appropriate manner so as to be clear, concise, and comprehensible within the general format suggested by 40 CFR 1502.10."

CEQ 1997 contains several general guiding principles to consider when examining environmental justice concerns and when making determinations as to whether there may be disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, or Indian tribes. These principles recommend that Federal agencies investigate the demographic composition of the affected area; consider relevant public health data and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards; consider the interrelated cultural, social, occupational, historical, or economic factors that could amplify the natural and physical environmental effects of the proposed agency action; develop effective public participation strategies that lead to meaningful community representation in the decision-making process; and finally, seek tribal representation in the process in a manner that is consistent with the government-to-government relationship between the US and tribal governments, the federal government's trust responsibility to federally recognized tribes, and any treaty rights.

In addition to these guiding principles, CEQ 1997 also highlights the following key consideration:

Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to Alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population.

3.15.3 Environmental Setting

3.15.3.1 IID Water Service Area and AAC

High and adverse impacts that could result in environmental justice effects would occur in the IID water service area as a result of fallowing with implementation of the water conservation program under the Proposed Project, Alternative 3, and Alternative 4. Such impacts in the IID water service area would also occur as a result of fallowing with implementation of the Salton Sea Habitat Conservation Strategy and the IOP under the Proposed Project and all of the Alternatives.

Census data were collected for the IID water service area. The population in the IID water service area is approximately 51 percent racial minority, 76 percent Hispanic origin, and 24 percent low-income. (Note that the Bureau of the Census defines Hispanic origin as an ethnicity and not a race. Consequently, a person of Hispanic

origin may be of any race, and as such the Bureau of Census reports these characteristics separately. The CEQ 1997 definition of minority includes Hispanic origin along with other race categories. To prevent double counting when examining minority populations, this analysis reviews racial minorities separately from Hispanics. Thus, the percentages for racial minorities and Hispanics are not additive.)

Farm laborers, which are a predominantly low-income, minority population group, also comprise a substantial component of the overall population demographics within the subregion. Due to lack of data, is it not possible to determine the exact racial and income characteristics of this affected population. It is, however, reasonable to assume that this affected population would have high percentages of minority (i.e., Hispanic) and low-income individuals.

3.15.3.2 Salton Sea

Based on the technical analysis performed in this EIR/EIS, the only high and adverse impact in the Salton Sea subregion is on air quality as a result of the exposed Salton Sea shoreline (see Section 3.7, Air Quality). For the purposes of this analysis, census data were collected for two impact areas: (Scenario 1) a 1-mile setback around the Sea from its existing shoreline at the time that the NOP for the Draft EIR/EIS was published to determine localized impacts; and (Scenario 2) the boundaries of the SSAB (see Figure 3.7-4 in Section 3.7, Air Quality) to determine regional impacts. Refer to Section 3.15.4.1, Methodology, for additional information on the rationale for defining these two impact areas.

Under Scenario 1, the population affected by this potentially high and adverse impact is approximately 41 percent racial minority, 57 percent Hispanic, and 29 percent low-income. Under Scenario 2, the population affected by this potentially high and adverse impact is approximately 38 percent racial minority, 54 percent Hispanic, and 18 percent low-income.

3.15.3.3 CVWD Service Area

Based on the technical analysis performed in this EIR/EIS, two high and adverse impacts could occur in the CVWD service area. With regard to the high and adverse impact on air quality as a result of the exposed Salton Sea shoreline, this impact is discussed under the "Salton Sea" since the CVWD service area falls within the boundaries described as the Salton Sea subregion for the purposes of this analysis under Scenario 2.

In addition to the air quality impact mentioned above, additional impacts could result from CVWD's receipt and use of the conserved water to be transferred by IID under the Proposed Project (QSA Implementation scenario). These impacts are being addressed in the Draft CVWD Water Management PEIR (see Section 1.5.4), which is being prepared by CVWD. However, because that PEIR is not yet available, this EIR/EIS provides information on potential environmental justice effects from CVWD's proposed receipt and use of the conserved water. According to CVWD's most recent, programmatic analysis, the TDS content of drinking water in certain areas within the CVWD service area would exceed secondary (i.e., aesthetic)

drinking water standards, based on their proposed use of the conserved water. The approximate boundary of this high and adverse impact to drinking water was identified by CVWD as the boundaries of La Quinta, Bermuda Dunes, Thermal, Mecca, Dike 4, the Oasis Irrigation Area, and the Martinez Canyon Recharge Site, which is located within the Oasis Irrigation Area (see Figure 3.15-1). The affected population was determined to be approximately 30 percent racial minority, 38 percent Hispanic, and 21 percent low-income.

3.15.3.4 Aggregate Environmental Justice Study Area

For this analysis, an aggregate environmental justice study area was established to ensure that later findings on the race and income compositions of affected populations would be reviewed in context. The aggregate study area comprised the approximate boundaries of the IID water service area and the SDCWA, CVWD, and MWD service areas. This large aggregate boundary was considered an appropriate area for this analysis since both the impacts and the benefits of the Proposed Project and Alternatives would generally be confined to the area within this boundary.

Based on a GIS analysis of the Census Block Groups within the aggregate study area, it was determined that the year 2000 population of the study area was approximately 16,779,062. Of this total, approximately 43 percent of the population were racial minority, and approximately 38 percent were of Hispanic origin.

At the time this analysis was conducted, the year 2000 census data on income were not yet released. As a substitute, 1990 Census data on income were used. The 1990 population of the study area was approximately 15,207,555. Of this total, approximately 13 percent of the population were low-income.

3.15.1 Impacts and Mitigation Measures

3.15.4.1 Methodology

The guiding principles contained in CEQ 1997 were used to develop the methodology for this environmental justice analysis. This section describes this methodology, and also identifies the key provisions of CEQ 1997 that were used in the development of this methodology.

CEQ 1997 contains the following definitions of Minority and Minority Population:

Minority: *Individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.*

Minority Population: *Minority populations should be identified where either:*

(a) the minority population of the affected area exceeds 50 percent; or

(b)*the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.*

In identifying minority communities, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically

dispersed/transient set of individuals (such as migrant workers or Native American), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of geographic analysis may be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as to not artificially dilute or inflate the affected minority population. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds.

CEQ 1997 contains the following definition of Low-Income Population:

Low-income Population: *Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.*

CEQ 1997 contains the following guidance on the terms "disproportionately high and adverse human health and environmental effects" and how to make these determinations:

Disproportionately High and Adverse Human Health Effects: *When determining whether human health effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:*

(a) Whether the health effects, which may be measured in risks and rates, are significant (as employed by NEPA), or above generally accepted norms. Adverse health effects may include bodily impairment, infirmity, illness, or death; and

(b) Whether the risk or rate of hazard exposure by a minority population, low-income population, or Indian tribe to an environmental hazard is significant (as employed by NEPA) and appreciably exceeds or is likely to appreciably exceed the risk or rate to the general population or other appropriate comparison group; and

(c) Whether health effects occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

Disproportionately High and Adverse Environmental Effects: *When determining whether environmental effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:*

(a) Whether there is or will be an impact on the natural or physical environment that significantly (as employed by NEPA) and adversely affects a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment; and

(b) Whether environmental effects are significant (as employed by NEPA) and are or may be having an adverse impact on minority populations, low- income populations, or Indian tribes

that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and

(c) Whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

The environmental justice analysis was conducted in two steps. These steps are described below:

1. The first step in this environmental justice analysis was to identify whether there were any high and adverse impacts as a result of the Proposed Project or Alternatives. The series of environmental analyses prepared for this EIR/EIS were reviewed, and discussions with the environmental professionals who prepared these studies were conducted to determine which environmental or human health impacts would remain high and adverse after proposed mitigation measures were implemented. Based on this review, it was determined that the Proposed Project and one or all of the Alternatives would result in potentially high and adverse air quality impacts in the Salton Sea subregion (Section 3.7), drinking water impacts in the CVWD service area (Table 3.1-2 in Chapter 3), and socioeconomic impacts in the IID water service area (Section 3.14)[2]. Further, it was determined that these impacts would remain potentially high and adverse even after proposed mitigation measures were implemented. Each of these impacts is described in greater detail below in Sections 3.15.4.2 through 3.15.4.6 and in the individual resource area chapters.

2. In the second step of the analysis, the geographic locations of these high and adverse impacts were overlaid with census data on race and income using GIS and other calculations to determine if minority or low-income populations existed within these high and adverse impact areas (see Section 3.15.3). If minority or low-income populations were found to exist within these high and adverse impact areas, a determination was then made as to whether these populations were receiving an adverse impact that appreciably exceeded the magnitude of similar impacts that were occurring in other parts of the Project's region of influence. If such an excess impact was identified, the specific impact being reviewed would then be described as having a disproportionately high and adverse effect on minority and/or low-income populations.

Thresholds for Identification of Minority and Low-income Populations. As described in Section 3.15.3.4, an aggregate study area was established to ensure that later findings on the race and income compositions of affected populations would be reviewed in context. The aggregate study area comprised the approximate boundaries of the IID water service area as well as the SDCWA, CVWD, and MWD service areas.

As described above, the second step of the environmental justice analysis involves an examination of the race and income characteristics of the populations that would

[2] Because the significant, unavoidable agricultural resources impact would only directly affect agricultural land rather than human populations, this impact was not considered in this analysis. The indirect socioeconomic impact that would occur as a result of the agricultural resources impact is evaluated.

be affected by high and adverse impacts. Using the CEQ 1997 definition of a minority population as a guide, a statistical analysis was conducted on Census data from the aggregate study area to set a threshold for identification of minority and low-income populations appropriate for this analysis. Based on this statistical analysis, the threshold was set at 50 percent for both minority populations and Hispanic-origin populations. An affected population would therefore have to be greater than 50 percent minority or Hispanic to be considered a minority population for this analysis. A similar statistical analysis was conducted to set a threshold for identification of a low-income population appropriate for this analysis. The low-income population threshold was set at 37 percent. An affected population would therefore have to be greater than 37 percent low-income to be considered a low-income population for this analysis. These thresholds were used to determine whether minority and/or low-income populations exist in the impact areas that are defined in Section 3.15.3.

Outreach to Minority and Low-income Populations. Both EO 12898 and the guidance contained in CEQ 1997 require federal agencies to ensure meaningful participation of minority and low-income populations in the decision-making process. Consequently, a key component of compliance with EO 12898 is outreach to the potentially affected minority and/or low-income population, which could uncover issues of importance that may not otherwise be apparent. This section describes the outreach efforts made by the Lead Agencies to involve the public, including minority and low-income populations, in the decision-making process.

As described in Chapter 1 of the Draft EIR/EIS, copies of the Draft EIR/EIS were made available at several public locations. These include local libraries in the potentially affected region of influence, on the IID Public Web Site, Reclamation and IID offices. All of these locations were identified in a Public Notice of Availability that was published in the following newspapers: Desert Sun, Imperial Valley Press, and San Diego Union Tribune. The Notice of Availability was also published in a local Spanish newspaper: El Sol Del Valle. Hardcopies and/or CD-ROM versions of the Draft EIR/EIS were also available by request from IID and Reclamation.

In accordance with NEPA, public scoping meetings were held with the general public to identify the scope of the environmental analysis of the Draft EIR/EIS and to identify significant issues that should be addressed in the Draft EIR/EIS. Six public scoping meetings were conducted between October 12 and October 20, 1999 to solicit input from the public on potential environmental impacts, the significance of impacts, the appropriate scope of the environmental assessment, proposed mitigation measures, and potential Alternatives to the Proposed Project. In addition, after release of the Draft EIR/EIS in January 2002, three public hearings were conducted on April 2, 3, and 4 to receive comments on the adequacy of the environmental document. The Notice of Intent and Notice of Preparation were made available at the public scoping meetings in both English and Spanish. Notices of the occurrence of all public meetings were published in both English and Spanish newspapers and a Spanish interpreter was present at the El Centro and La Quita public meetings.

Agency coordination meetings were also held with Cooperating, Responsible, and Trustee Agencies (as defined by NEPA and CEQA), as well as with the Native American Tribes that could be affected by the direct and/or indirect affects of the federal actions associated with the Proposed Project and Alternatives in April 2000. Subsequent consultation meetings have been held with the Torres Martinez Indian Tribe.

Subregions and Significant Impacts Excluded from Impact Analysis. No high and adverse impacts would occur in the SDCWA service area, MWD service area, or LCR subregions; therefore, these subregions are not included in the impact discussions below. Refer to the IA EIS for further details on minority and low-income populations in the LCR subregion.

3.15.4.2 Proposed Project

IID WATER SERVICE AREA AND AAC

Impact EJ-1: Environmental Justice Effects from Net Loss of up to 2,440 Jobs from Fallowing under Conservation Program, IOP, and Salton Sea Habitat Conservation Strategy. As described in Section 3.14, Socioeconomics, the potential fallowing of agricultural land under the Proposed Project would result in the loss of agricultural jobs. From a year 2000 level of 11,300 jobs in the farm production and services sectors, approximately 1,400 jobs would be lost under the worst-case scenario analyzed (i.e., conservation of 300 KAFY of water via fallowing). With implementation of fallowing to produce water for compliance with the IOP and the Salton Sea Habitat Conservation Strategy, approximately 290 and 750 additional agricultural sector jobs would be lost, respectively. The total job loss under the worst case scenario analyzed in Section 3.14, Socioeconomics, would be 2,440 jobs, which is approximately 22 percent of the total number of farm production and services sector jobs in Imperial County. This potential loss of jobs is well within the variation in farm employment that has occurred over the last 10 years. However, in recognition of the racial and income status of the population that would likely be affected by this loss of employment, this impact was considered to be potentially high and adverse, and as such was reviewed further in this environmental justice analysis.

Most of the jobs that would be lost as a result of the Proposed Project are low-wage agricultural jobs. As stated in Section 3.15.3.1, due to lack of data, it is not possible to determine the exact racial and income characteristics of this affected population. It is, however, reasonable to assume that this affected population would have high percentages of minority (i.e., Hispanic) and low-income individuals. Since this potentially high and adverse loss of employment impact resulting from the Proposed Project is expected to be limited to the IID water service area, and since no other similar employment impacts are expected in other parts of the Project's region of influence, the affected population can be described as receiving an adverse impact that appreciably exceeds the magnitude of similar impacts occurring in other parts of the Project's region of influence. This employment impact can therefore be described as having a disproportionately high and adverse effect on minority and low-income populations.

The IID Board will consider whether measures to mitigate socioeconomic and associated environmental justice impacts as a result of fallowing in the Imperial Valley are appropriate, when it considers whether to approve the Proposed Project or an alternative to the Proposed Project.

SALTON SEA

Impact EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline. As described in Section 3.7, Air Quality, windblown dust from the exposed shoreline of the Salton Sea under the Proposed Project could result in high and adverse air quality impacts. However, as described in Section 3.2, Biological Resources, implementation of the Salton Sea Habitat Conservation Strategy will offset reductions in the Salton Sea elevation caused by other components of the Proposed Project, and thus avoid the air quality impacts of exposed shoreline caused by the Project until approximately 2035. Under the Proposed Project, the Sea's elevation is projected to decline from an existing level of –228 to –240 msl (a decline of 12 feet, assuming fallowing is used as the conservation method; the elevation could be reduced further if on-farm or water delivery system conservation measures are implemented) from 2035 through the end of the Project term if 300 KAFY is conserved via fallowing. Under the Baseline, the elevation at the end of the Project term is predicted to be –235; therefore, the Project impact would be a decline of 5 feet.

The air quality monitoring and mitigation plan proposed for the impact that will occur after 2035 includes a four-step plan that would be implemented to mitigate significant PM_{10} emissions and incremental health effects (if any) from Salton Sea sediments exposed by the Proposed Project. This four-step plan is described in Section 3.7, Air Quality.

The proposed mitigation is potentially sufficient to avoid or suppress PM_{10} 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.

Due to the complex nature of air dispersion patterns, the geographic extent of this potentially high and adverse impact could not be definitively identified. Consequently, as described in Section 3.15.3.2, Environmental Setting, two geographic areas were analyzed for the affected population analysis. Under Scenario 1 (a local scenario), the air quality impact was assumed to be greatest near the shoreline of the Salton Sea. GIS analysis was used to identify the racial and income characteristics of the population residing within a 1-mile buffer around the Salton Sea shoreline. Under Scenario 2 (a regional scenario), the air quality impact was assumed to be potentially high and adverse throughout the SSAB (see Section 3.7, Air Quality, for the geographic extent of the SSAB). GIS analysis was used to identify the racial and income characteristics of the entire population residing within the SSAB.

Under Scenario 1, the population affected by this potentially high and adverse impact is approximately 41 percent racial minority, 57 percent Hispanic, and 29

percent low-income. Under Scenario 2, the population affected by this potentially high and adverse impact is approximately 38 percent racial minority, 54 percent Hispanic, and 18 percent low-income. Under both scenarios, the racial minority and low-income population percentages are below the thresholds established for this analysis, i.e., 50 percent and 37 percent, respectively. Conversely, under both scenarios, the Hispanic population percentages are above the Hispanic population threshold of 50 percent. Consequently, the affected population under both scenarios can be described as a Hispanic population, which under the CEQ 1997 definition is also a minority population. As the potentially high and adverse air quality impact resulting from the Proposed Project is expected to be limited to the SSAB, and as no other similar air quality impacts are expected in other parts of the Project's region of influence, the affected population can be described as receiving an adverse impact that appreciably exceeds the magnitude of similar impacts occurring in other parts of the Project's region of influence. This potential air quality impact can therefore be described as having a disproportionately high and adverse effect on a minority population (i.e., a Hispanic population).

Mitigation Measures. Other than the proposed mitigation for the air quality impact described above, no additional mitigation is proposed.

CVWD SERVICE AREA

Same as Impact EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline. High and adverse impacts to air quality could occur in the CVWD service area from exposure of the Salton Sea bed. For a discussion of the disproportionately high and adverse air quality impact on a minority population in the SSAB, which includes the CVWD service area, refer to the discussion above under "Salton Sea."

In addition to the air quality impact mentioned above, CVWD's receipt and use of conserved water under the Proposed Project (QSA Implementation scenario) would result in exceedances of secondary (i.e. aesthetic) drinking water standards for TDS in certain areas within the CVWD service area. As described in Section 3.15.3.3, the affected population was determined to be approximately 34 percent racial minority, 45 percent Hispanic, and 15 percent low-income. None of these percentages cross the thresholds established for this environmental justice analysis for identification of a minority or low-income population (see Section 3.15.4.1, Methodology, for further detail on how the thresholds were determined). Consequently, this affected population cannot be described as minority or low-income. This drinking water impact, therefore, cannot be described as having a disproportionately high and adverse effect on a minority or low-income population.

3.15.4.3 Alternative 1: No Project

IID WATER SERVICE AREA AND AAC

Under the No Project alternative, fallowing would continue to occur at Baseline levels within the IID water service area (i.e., approximately 20,000 acres per year); therefore, the environmental justice effects from employment losses associated with fallowing would be significantly less than under the Proposed Project and Alternatives.

SALTON SEA

Under the No Project alternative, water levels in the Salton Sea would decline. Water levels are projected to decline from an existing level of –228 to –235 msl (a decline of 7 feet) over the next 75 years. The exposure of this previously inundated area may result in windblown dust as described in Impact EJ-2. However, less acreage would be exposed under the Baseline as compared to the Proposed Project.

CVWD SERVICE AREA

As described above under "Salton Sea," with implementation of the No Project alternative, water levels are projected to decline from an existing level of –228 to –235 msl (a decline of 7 feet) and total surface area is projected to decline from 233,000 to 217,000 acres, exposing about 16,000 acres over the next 75 years. The exposure of this previously inundated area may result in windblown dust as described in Impact EJ-2. However, less acreage would be exposed under the Baseline as compared to the Proposed Project.

3.15.4.4 Alternative 2: Water Conservation and Transfer of Up To 130 KAFY to SDCWA (On-farm Irrigation System Improvements as Exclusive Conservation Method)

IID WATER SERVICE AREA AND AAC

Impact A2-EJ-1: Environmental Justice Effects from Net Loss of up to 1,040 Jobs from Fallowing under IOP and the Salton Sea Habitat Conservation Strategy. Under Alternative 2, fallowing would not occur in the IID water service area with implementation of the water conservation program; therefore, the employment losses associated with fallowing under the water conservation program would not occur in the IID water service area. However, fallowing would occur with implementation of fallowing to produce water for compliance with the IOP and the Salton Sea Habitat Conservation Strategy, resulting in a loss of 290 and 750 jobs in the agricultural sector, respectively. Based on a similar rationale as described under EJ-1, this employment impact would have a disproportionately high and adverse effect on minority and low-income populations.

As stated under EJ-1, IID Board will consider whether measures to mitigate socioeconomic and associated environmental justice impacts as a result of fallowing in the Imperial Valley are appropriate, when it considers whether to approve the Proposed Project or an alternative to the Proposed Project.

SALTON SEA

Impact A2-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline. The environmental justice impacts under Alternative 2 would be similar to those described for this subregion under the Proposed Project. However, the Sea level decline, and resultant environmental justice effects, would be less.

CVWD SERVICE AREA

Same as Impact A2-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline. The environmental justice impacts under Alternative 2 would be similar to those described for this subregion under the Proposed Project. However, the Sea level decline, and resultant environmental justice effects, would be less.

3.15.4.5 Alternative 3: Water Conservation and Transfer of Up To 230 KAFY to SDCWA, CVWD, and/or MWD (All Conservation Measures)

IID WATER SERVICE AREA AND AAC

Impact A3-EJ-1: Environmental Justice Effects from Net Loss of up to 2,130 Jobs from Fallowing under Conservation Program, IOP, and the Salton Sea Habitat Conservation Strategy. Under Alternative 3, the employment impacts would be similar to those described under the Proposed Project, resulting in a disproportionately high and adverse effect on minority and low-income populations for the same reasons described under EJ-1.

As stated under EJ-1, IID Board will consider whether measures to mitigate socioeconomic and associated environmental justice impacts as a result of fallowing in the Imperial Valley are appropriate, when it considers whether to approve the Proposed Project or an alternative to the Proposed Project.

SALTON SEA

Impact A3-EJ-2: **Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.** The environmental justice impacts under Alternative 3 would be similar to those described for this subregion under the Proposed Project. However, the Sea level decline, and resultant environmental justice effects, would be less.

CVWD SERVICE AREA

Same as Impact A3-EJ-2: **Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.** The environmental justice impacts under Alternative 3 would be similar to those described for this subregion under the Proposed Project. However, the Sea level decline, and resultant environmental justice effects, would be less.

3.15.4.6 Alternative 4: Water Conservation and Transfer of Up To 300 KAFY to SDCWA, CVWD, and/or MWD (Fallowing As Exclusive Conservation Method)

IID WATER SERVICE AREA AND AAC

Impact A4-EJ-1: Environmental Justice Effects from Net Loss of up to 2,440 Jobs from Fallowing under Conservation Program, IOP, and the Salton Sea Habitat Conservation Strategy. Under Alternative 4, the employment impacts would be the same as those described under the Proposed Project's worst-case scenario (i.e., conservation of 300 KAFY of water via fallowing), resulting in a disproportionately high and adverse effect on minority and low-income populations.

As stated under EJ-1, IID Board will consider whether measures to mitigate socioeconomic and associated environmental justice impacts as a result of fallowing in the Imperial Valley are appropriate, when it considers whether to approve the Proposed Project or an alternative to the Proposed Project.

SALTON SEA

Impact A4-EJ-2: **Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline.** The environmental justice effects under Alternative 4 would be similar to those described for this subregion under the Proposed Project.

CVWD SERVICE AREA

Same as Impact A4-EJ-2: Environmental Justice Effects from Windblown Dust as a Result of Sea Level Decline. The environmental justice effects under Alternative 4 would be similar to those described for this subregion under the Proposed Project.

3.16 TRANSBOUNDARY IMPACTS

Section 3.16.3.1, first paragraph on page 3.16-3:

The waters of the Colorado River, once delivered to Mexico, are under the jurisdiction of Mexico. The ~~1994~~ 1944 US-Mexico Treaty contains no provisions requiring Mexico to provide water for environmental protection, nor any requirements relating to Mexico's use of that water. As flood flows arrive at Morelos Dam, Mexico has the discretion to divert more water than its water order or allow all the additional flows to move downstream of Morelos Dam. In the past Mexico has generally chosen to increase its diversion for use in agriculture for increased crop production and soil salinity improvement, or for diluting flows delivered at the SIB, municipal industrial uses, or to recharge groundwater aquifers in the Mexicali Valley.

4.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Chapter 4, Alternatives Comparison, includes a detailed analysis and comparison of the Proposed Project with each of the alternatives. As required by CEQA this Chapter also identifies the environmentally superior alternative. CEQA Guidelines (Section 15126.6(e)2), Consideration and Discussion of Alternatives to the Proposed Project, state, "If the environmentally superior alternative is the No Project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." For this Project, Alternative 1, the No Project Alternative, is environmentally superior to the others; therefore, the following discussion regarding the next environmental superior alternative is provided.

~~Determination of the environmentally superior alternative is somewhat driven by the selection of an HCP approach for the Salton Sea. Implementation of HCP (Salton Sea Portion) Approach 2 would avoid significant unavoidable impacts on recreation resources and air quality by maintaining Baseline flows to the Salton Sea. *Approach 2 would minimize but not avoid significant, unavoidable impacts on water quality and it would not avoid or minimize impacts on agricultural resources.* To minimize impacts to water quality (selenium impacts to the drains) and impacts on agricultural resources (conversion of prime farmland and farmland of statewide importance), the amount of water conserved and the method of conservation is the determining factor. Alternative 2, 130 KAFY with on-farm irrigation system improvements only along with HCP Approach 2 would avoid recreation, air quality, and agricultural resources impact and would minimize water quality impacts and is therefore the environmentally superior alternative. However, the Proposed Project includes the flexibility to be implemented with the same methods and quantities as Alternative 2 and so it could also, if implemented this manner, be considered environmentally superior.~~

For the Proposed Project and each of the Project Alternatives, the Salton Sea Habitat Conservation Strategy would effectively avoid the significant recreation impact to the Salton Sea sportfishery and would delay the potentially significant unavoidable air quality impact of dust emissions from the exposed Salton Sea shoreline until 2030 by providing mitigation water to the Sea at a level equal to or greater than the Baseline. After 2030, the magnitude of impacts is driven by the extent to which the Sea would decline by the end of the Project term (2077), as a result of the Project. Elevation decline is driven first by the method of conservation and secondly by the amount of conservation. Alternatives that utilize fallowing have the least impact on elevation. Alternative 2 (130 KAFY – On-farm irrigation improvements only), is the only alternative which does not include the use of fallowing to generate the conserved water for transfer. The 2077 elevation for Alternative 2 with implementation of the Salton Sea Habitat Conservation Strategy is anticipated to be about –242 msl. The Proposed Project, if implemented using fallowing to conserve the transferred water, would have a projected Sea elevation of –240 msl in 2077 as would Alternative 4. Alternative 3 (230 KAFY – All Conservation Measures), if implemented using fallowing to conserve the transferred water, would have an projected Salton Sea elevation in 2077 of between –235 and –240 msl.

Implementation of the Salton Sea Habitat Conservation Strategy would not avoid significant, unavoidable impacts on water quality (selenium impacts to the drains and the New and Alamo Rivers) or to agricultural resources (conversion of prime farmland and farmland of statewide importance or conversion of other agricultural lands to non-agricultural use). None of the alternatives are able to avoid water quality impacts, however, Alternative 2 would reduce them compared to the other Alternatives. To minimize impacts on agricultural resources, the method of conservation is the determining factor. Use of fallowing has the greatest impact on agricultural resources, therefore, alternatives with the greatest amount of fallowing have the greatest impact on agricultural resources. With implementation of the Salton Sea Habitat Conservation Strategy the Proposed Project and Alternatives 3 and 4 would include fallowing.

Therefore, the environmentally superior alternative would be one that minimizes impacts to the elevation of the Sea while also minimizing the amount of water conserved to reduce impacts to drains and minimizing the amount of conservation by non-rotational fallowing to reduce impacts to agricultural resources. Alternative 2, because it can only be implemented with on-farm irrigation system improvements would result in greater impacts to the elevation of the Salton Sea by 2077.

Alternative 3, (230 KAFY - All Conservation Measures) , if implemented using fallowing, would result in the least amount of elevation reduction to the Salton Sea and would reduce water quality impacts to the IID drains and the Alamo River and impacts to agricultural resources compared to the Proposed Project and Alternative 4 (300 KAFY), and is therefore the environmentally superior alternative. Although socioeconomic impacts are not a consideration in the determination of the environmentally superior alternative under CEQA, it should be noted that Alternatives that rely on fallowing for conservation would result in greater socioeconomic effects than Alternatives that do not.

5.0 OTHER CEQA AND NEPA CONSIDERATIONS

5.1 CUMULATIVE IMPACTS

Section 5.1.1.1, subsection *Recreation Resources—Salton Sea*, third paragraph on page 5-6:

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 HCP Approach 2 of the Salton Sea Conservation Strategy. Under HCP Approach 1 of the Salton Sea Conservation Strategy, the recreation impacts of the water conservation and transfer component of the Proposed Project would be mitigated. Because the HCP would avoid or mitigate 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 result in impacts to power generation capacities at Headgate Rock Dam. The IA EIS describes the average percentage of lost energy due to the IA (changing the point of delivery of approximately 388 KAF) as 5.37 percent. Diversion of up to 300 KAF due to 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 then 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 connect 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.

Section 5.1.1.1, subsection *Potential Cumulative Impacts*, first paragraph Page 5-10:

As described in this Draft 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 result in impacts to 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.

Section 5.1.1.1, subsection *Potential Cumulative Impacts*, first paragraph on page 5-17:

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 permanent 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 permanent 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 EIS/EIR was issued by BLM and Imperial County in September 2000. A validity study, which will determine whether the project is viable from an economic standpoint, is expected to be completed by BLM in July 2002.
- **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 EIS/EIR 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 exceedances of the 24-hour CAAQS for PM_{10} in the SSAB. Although the Imperial Project's Final EIS/EIR includes mitigation measures to reduce this impact to a less than significant level,

the EIS/EIR still concludes that the PM_{10} impact is cumulatively significant. The proposed mitigation for the Proposed Project's air quality impacts related to PM_{10} emissions in the SSAB (see Section 3.7, Air Quality) is potentially sufficient to avoid or suppress PM_{10} 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.

Section 5.1.2.5, sixth paragraph page 5-35:

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 PM_{10} emissions in the SSAB (see Section 3.7, Air Quality) is potentially sufficient to avoid or suppress PM_{10} 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. The Salton Sea Restoration Project could reduce the impact depending on the type and location of restoration proposed.

Section 5.1.2.7, second paragraph on page 5-36:

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. ~~The o~~Other projects identified ~~above~~ 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. ~~The Proposed Project would therefore, have no or a minor impact to the socioeconomic resources and would not be contribute to a cumulative impact.~~

Implementation of the Proposed Project, the QSA, and the PVID fallowing program would result in impacts to 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.

5.3 APPLICABLE REGULATIONS, POLICIES And REQUIRED PERMITS

Section 5.3.2, fourth bullet on page 5-46:

- **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).)

5.4 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 5.4.3, beginning with the first paragraph on page 5-48:

~~5.4.3 Recreation~~

~~**R-8: Reduced sport fishing opportunities.** Impacts to fisheries, including sport fish and aquatic habitat, potentially would result from an accelerated decrease in the number of fish that inhabit the Salton Sea, as described in Section 3.2, Biological Resources. No change to anglers' ability to catch sargo would be expected when compared to the Baseline; however, life cycle impacts to other key sport fish are predicted to occur by year 2012 with implementation of the Proposed Project.~~

~~*Note that impacts to recreation at the Salton Sea would be avoided if HCP Approach 2 were selected and implemented. This approach would maintain flows to the Salton Sea at Baseline levels and avoid Project-related impacts to the decline of sport-fishing opportunities. However, until an HCP Approach is selected, this impact remains significant and unavoidable. See Mitigation Measure R-8 in Section 3.6, Recreation, for more details.*~~

5.4.43 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 (~~36~~16,000 acres compared to the Baseline with implementation of the Salton Sea Habitat Conservation Strategy) would increase the potential for dust suspension after year 2035. The proposed mitigation for the Proposed Project's air quality impacts related

to PM_{10} emissions in the SSAB (see Section 3.7, Air Quality) is potentially sufficient to avoid or suppress PM_{10} 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. ~~Spatial variations in sediment characteristics and soil erodibility, temporal variations in wind conditions, and variation in factors contributing to the formation of salt crusts prevent any reasonable quantitative estimate of emissions and associated impacts from the exposed shoreline. Therefore, a qualitative assessment of the potential for dust suspension is provided in this Draft EIR/EIS. To be conservative, this analysis concludes that windblown dust from exposed shoreline may result in potentially significant air quality impacts. (Additional details are provided in Section 3.7, Air Quality, Impact AQ-7.)~~

~~*Note that impacts to air quality would be avoided if HCP Approach 2 were selected and implemented. This approach would maintain flows to the Salton Sea at Baseline levels and prevent additional exposure of the Salton Sea's shoreline. However, until an HCP Approach is selected, this impact remains significant and unavoidable. See Mitigation Measure AQ-7in Section 3.7, Air Quality, for more details.*~~

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, to comply with the IOP ~~or to implement HCP Approach 2~~the Salton Sea Habitat Conservation Strategy 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. Implementation of ~~HCP Approach 1 of~~ the Salton Sea Habitat Conservation Strategy would have long-term benefits for fish-eating birds by maintaining foraging opportunities at the Salton Sea ~~over the 75-year life of the project~~ until the year 2030 .

Improvement of habitat for special-status species would also have long-term benefits for other species without special-status. 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 ~~would~~ could have long-term effects on resources such as ~~recreation and~~ air quality at the Salton Sea, water quality in the drains and New and Alamo River and, if non-rotational 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).

Section 5.6.1, fifth paragraph on page 5-49:

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 ~~alternatives~~Alternatives, 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 after year 2035. Such environmental affects would adversely affect the elevation of the Salton Sea and associated resources irreversibly. ~~However, as noted in this Draft EIR/EIS, these changes to the Salton Sea would occur under the No Project alternative with or without implementation of the Project. The Project would, however, accelerate the irreversible change by up to 11 years. If HCP Approach 2the Salton Sea Habitat Conservation Strategy were implemented, the Proposed Project would not result in these irreversible changes.~~

The Proposed Project and ~~alternatives~~ 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 Chapter 2. Thus, the changes in biological and power resources along the LCR may also be irreversible, although ~~they~~ the biological resources changes are considered to be mitigable.

Section 5.6.2, seventh paragraph on page 5-50:

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. ~~In addition, in the Salton Sea area, a number of recreational and aesthetic resources would become irretrievable as the Sea~~

~~elevation declines~~. 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 amount of elevation decline. ~~accelerate the irretrievable change by up to 11 years~~.

6.0 LIST OF PERSONS, AGENCIES, AND ORGANIZATIONS CONSULTED

Section 6.0, page 6-3:

Pena, Carlos. ~~International Boundary and Water Commission (IBWC).~~ United States Section, International Boundary Water Commission (USIBWC) . Personal Communication with Kirsten Garrison, CH2M HILL. August 11, 2000.

8.0 LIST OF RECIPIENTS

Section 8.0, subhead Federal Agencies, first list on page 8.0-2:

International Boundary and Water Commission, U.S. Section, Yuma, AZ

APPENDICES

APPENDIX D

Section 2, *Proposed Project Screening Criteria Table*, on page D-15:

Page D-15, Proposed Project Screening Criteria table and explanation have been revised as follows:

Proposed Project Screening Criteria	
C1: Provide SDCWA with reliable source	Pass
C2: Protect IID's water rights	Pass
C3: Reduce environmental impacts	N/A*
C4: Technically feasible and reliable	Pass
C5: Institutionally and politically feasible	~~Pass~~Unknown
C6: Implementable within reasonable time period	Pass
C7: Meets QSA transfer objectives	Pass

EXPLANATION: This alternative is the Proposed Project, and it meets the Proposed Project objectives. It is designed to provide SDCWA with an alternative and reliable water source. It uses proven conservation technologies ~~and is cost effective~~. The Proposed Project does not appear to pose any insurmountable permitting issues. Because it does not require any large-scale construction prior to implementation, the Proposed Project would be implementable within a reasonable time period. C2 is given a rating of Pass with the assumption that IID will not implement fallowing if there is any uncertainty that fallowing would be considered a reasonable and beneficial use of IID's water rights. Also, the IID/SDCWA Transfer Agreement prohibits the use of fallowing as a conservation measure under IID's contracts with participating landowners. Unless this is changed, the amount of conserved water that landowners could generate by fallowing would be limited by contractual restrictions.

Section 2, subhead *Alternative 3*, third paragraph on page D-18:

EXPLANATION: This alternative meets most of the Proposed Project objectives. It would provide SDCWA with an alternative and reliable water source. It does not impair IID's water rights, it utilizes proven conservation technologies, and it is cost effective. This alternative does not appear to pose any insurmountable permitting issues. This alternative is implementable within a reasonable time period because it does not require any large-scale construction prior to implementation.. Because this alternative results in a ~~significantly~~ smaller reduction in drainage to the Salton Sea, it has the potential to ~~substantially~~ reduce the significant environmental impacts associated with increased salinity and reduced elevation when compared to the Proposed Project.

Section 2, subhead, *Alternative 9*, first paragraph on page D-37:

EXPLANATION: Water transfers from other sources in California to SDCWA might supplement their existing supply; however, it is unlikely that they could provide SDCWA with a reliable source in the event of a drought period. – Therefore, ~~F1~~ C1 is rated Fail.

APPENDIX G

Subsection *Lateral Interceptors*, third paragraph on page G-8:

A total of 14 different sites for lateral interceptor systems have been identified throughout the IID water service area. Engineering construction and operations costs estimates were generated for each potential lateral interceptor system. The different systems serve varying numbers of acres of farming area and would conserve different total quantities of water per system. To provide a level of flexibility in modeling the impacts of constructing and operating the lateral interceptor systems, all costs were translated into average cost per acre-foot conserved. This allows any lateral interceptors be brought on line in any year to conserve any quantity of water. The total quantity of water is limited to the total estimated conservation of all 14 systems. The average initial capital cost per acre-foot of the 14 lateral interceptor systems that would conserve the 85,000 acre-feet is $1,880. The average annual operations and maintenance cost for these 14 systems is estimated to be about $40 per acre-foot per year. ~~This amount is assumed to be 85,000 acre-feet per year. The average initial capital cost per acre-foot conserved is $495. Energy costs are assumed to be $5 per acre-foot, and other non-energy operations and maintenance costs are $6 per acre-foot.~~

Subsection *Transfer Revenue Expenditures*, beginning with the first paragraph on page G-9:

~~Transfer revenues are collected by IID from SDCWA, CVWD, and/or MWD according to the terms of the applicable contractual agreements. Table G-3 shows the transfer price series that are used for the analysis in 2001 dollars. A real-dollar price series for the SDCWA Agreement was provided by IID and discounted to 2001 dollars using a discount rate of 3.2 percent. This is the long-term real discount rate recommended for use in long-term projects by the United States Office of Management and Budget. The price series for water transferred under the terms and conditions of the QSA are calculated according to the base prices outlined in the QSA ($50 and $125 in 1999 dollars) and an assumed escalation rate of 2.5 percent. This escalation rate was provided by IID. These prices are also discounted back to 2001 dollars using the same long-term real discount rate of 3.2 percent. These transfer revenues will be used to pay for the costs of IID administering the program and to pay any costs IID incurs associated with the conservation of water for transfer. The remainder of the transfer revenue is passed on to farmers who participate in the conservation program based on the quantity of water they conserve. In estimating the level of compensation to farmers per acre-foot conserved, it is assumed that all transfer revenue in excess of IID costs are passed on to farmers.~~

Transfer revenues are collected by IID from SDCWA, CVWD and/or MWD according to the terms of the applicable contractual agreements. Revised Table G-3

shows the projected transfer price series in end of year 2001 dollars. The price series for the SDCWA Agreement is based on a nominal dollar price series provided by IID and deflated to 2001 dollars using a rate of 2.5 percent. The price series for water transferred under the terms and conditions of the QSA are derived from the base prices outlined in the QSA ($50 and $125 in beginning of year 1999 dollars) escalated to end of year 2001 using a rate of 2.5 percent.

REVISED TABLE G-3
Assumed Price Series for Transferred Water, 2001 Dollars

Program Year	SDCWA Agreement Price	QSA Price for 1st 50 KAFY transferred to CVWD	QSA Price for 2nd 50 KAFY transferred to CVWD	QSA Price for any Water transferred to MWD
2002	243	54	135	135
2003	255	54	135	135
2004	267	54	135	135
2005	279	54	135	135
2006	292	54	135	135
2007	305	54	135	135
2008	319	54	135	135
2009	333	54	135	135
2010	348	54	135	135
2011	363	54	135	135
2012	380	54	135	135
2013	387	54	135	135
2014	394	54	135	135
2015	400	54	135	135
2016	407	54	135	135
2017	413	54	135	135
2018	418	54	135	135
2019	419	54	135	135
2020	419	54	135	135
2021	419	54	135	135
2022	429	54	135	135
2023	430	54	135	135
2024	431	54	135	135
2025	431	54	135	135
2026	432	54	135	135
2027	432	54	135	135
2028	433	54	135	135
2029	434	54	135	135
2030	434	54	135	135
2031	435	54	135	135
2032	431	54	135	135
2033	432	54	135	135
2034	432	54	135	135
2035	433	54	135	135
2036	434	54	135	135
2037	434	54	135	135
2038	435	54	135	135
2039	436	54	135	135

REVISED TABLE G-3
Assumed Price Series for Transferred Water, 2001 Dollars

Program Year	SDCWA Agreement Price	QSA Price for 1st 50 KAFY transferred to CVWD	QSA Price for 2nd 50 KAFY transferred to CVWD	QSA Price for any Water transferred to MWD
2040	436	54	135	135
2041	437	54	135	135
2042	437	54	135	135
2043	438	54	135	135
2044	438	54	135	135
2045	439	54	135	135
2046	440	54	135	135
2047	440	54	135	135
2048	441	54	135	135
2049	441	54	135	135
2050	442	54	135	135
2051	442	54	135	135
2052	443	54	135	135
2053	443	54	135	135
2054	444	54	135	135
2055	444	54	135	135
2056	445	54	135	135
2057	445	54	135	135
2058	446	54	135	135
2059	446	54	135	135
2060	447	54	135	135
2061	447	54	135	135
2062	448	54	135	135
2063	448	54	135	135
2064	449	54	135	135
2065	449	54	135	135
2066	450	54	135	135
2067	450	54	135	135
2068	450	54	135	135
2069	451	54	135	135
2070	451	54	135	135
2071	452	54	135	135
2072	452	54	135	135
2073	453	54	135	135
2074	453	54	135	135
2075	453	54	135	135
2076	454	54	135	135

The data presented in the Draft EIR/EIS Table G-3 and the subsequent impact estimates assumed a 2.5 percent escalation rate to generate nominal QSA prices and applied a higher more conservative inflation assumption of 3.2% to deflate the QSA and IID/SDCWA nominal price series' back to 2001 dollars. This resulted in lower

prices for transferred water in 2001 dollars relative to those presented in Revised Table G-3.

Using an inflation assumption of 2.5 percent to deflate the nominal price series back to 2001 dollars in the impact analysis would result in the injection of more money into the Imperial County economy in the form of higher levels of disposable income expenditure. Higher levels of disposable income expenditure would result in greater job and value of business output gains in the disposable income economic change category for all Proposed Project and alternatives modeling scenarios. This would result in lower net job and value of business output losses associated with fallowing and slightly higher net job and value of business output gains with on-farm and water delivery system improvements. Since the adverse impact of the Proposed Project under this revised inflation assumption would be less than that presented in the Draft EIR/EIS; the impacts are not re-estimated.

Subsection *Impact Analysis Results*, Table G-5 on page G-16:

Insert Table G-5 Economic Change Levels for the Proposed Project

4.3 Figure Replacements to the Draft EIR/EIS

The following figures completely replace those in the Draft EIR/EIS and are included on the following pages:

- **Figure 3.1-9**, Project Site Features
- **Figure 3.1-16**, Existing Setting Average Overall Water Balance
- **Figure 3.1-24A**, Historic Elevation and Salinity for the Salton Sea, 1950–2000
- **Figure 3.1-26**, Proposed Project Average Overall Water Balance
- **Figure 3.1-28**, USBR Model Results: *Proposed Project Graphs of the Salton Sea*
- **Figure 3.1-30**, Baseline/No Project: Alternative 1, Average Overall Water Balance
- **Figure 3.1-31**, USBR Model Results: *Project Baseline Graphs of the Salton Sea*
- **Figure 3.1-32**, Alternative 2: Water Conservation and Transfer of Up to 130 KAFY On-farm, Average Overall Water Balance
- **Figure 3.1-33**, USBR Model Results: *Alternative 2 Graphs of the Salton Sea*
- **Figure 3.1-34**, Alternative 3 Water Conservation and Transfer of up to 230 KAFY (130 KAFY On-farm, 100 KAFY System) Average Overall Water Balance
- **Figure 3.1-35**, USBR Model Results: *Alternative 3 Graphs of the Salton Sea*
- **Figure 3.1-36**, Alternative 4: Water Conservation and Transfer of Up to 300 KAFY (Fallowing as Exclusive Conservation Method), Average Overall Water Balance
- **Figure 3.1-37**, USBR Model Results: *Alternative 4 Graphs of the Salton Sea*
- **Figure 3.2-15**, Projected Water Surface Elevations Under the Proposed Project and Alternatives
- **Figure 3.2-16**, Projected Year at Which Salinity Would Exceed Tolerances for Invertebrate Species Under the Poposed Project and Alternatives
- **Figure 3.7-5a**, Wind Rose for Niland, California, Year 2000
- **Figure 3.7-5b**, Wind Rose for Niland, California, Year 2001