

by the Endangered Species Act (ESA). This HCP includes specific conservation strategies for the Salton Sea, tamarisk scrub habitat, drain habitat, desert habitat, agricultural field habitat, burrowing owls, desert pupfish, and razorback suckers. The Salton Sea strategy includes two approaches: 1) construction and operation of a fish hatchery and 5,000 acres of fish ponds; or 2) conservation of sufficient additional water (beyond that conserved for transfer) to replace water lost to the Sea such that there would be no change in inflow to the Salton Sea.

Alternatives evaluated in the DEIS include the Proposed Project - water conservation and transfer of up to 300,000 afy to SDCWA, CVWD, and/or MWD with all conservation measures; Alternative 1 - no project; Alternative 2 - water conservation and transfer of up to 130,000 afy to SDCWA with on-farm irrigation system improvements as the exclusive conservation measures; Alternative 3 - water conservation and transfer of up to 230,000 afy to SDCWA, CVWD, and/or MWD with all conservation measures; and Alternative 4 - water conservation and transfer of up to 300,000 afy to SDCWA, CVWD, and/or MWD with fallowing as the exclusive conservation measure.

EPA endorses the effort to reduce Southern California's historic use of Colorado River water to California's legal apportionment of 4.4 million acre-feet per year (maf/yr) while minimizing the adverse effects on beneficial uses. We advocate use of all available tools to assure a long-term, sustainable balance between available water supplies, ecosystem health and water supply commitments. These tools include water transfers and exchanges, conservation, tiered pricing, irrigation efficiencies, operational flexibilities, market-based incentives, water acquisition, conjunctive use, voluntary temporary or permanent land fallowing, and wastewater reclamation and recycling. We urge aggressive implementation of water use efficiencies to maximize beneficial use of the transfer water and to achieve and maintain a sustainable balance between water supply and demand.

We are concerned with the public review process for the environmental documentation for the QSA, Department of Interior's Implementation Agreement (IA), which enables implementation of the QSA, and the IID/SDCWA water transfer. Although the IA, QSA, and IID/SDCWA water transfer are inextricably linked, the comment deadline dates are not related or in a logical sequence (i.e., programmatic to project-specific level of evaluation). Thus, it is difficult for the public, local, state, and Federal entities to provide comprehensive comments on all three actions. In addition, other actions such as the Salton Sea Restoration Project and Coachella Valley Water Management Plan, which are directly relevant to the potential impacts of the QSA and IID/SDCWA water transfer and which can only be fully evaluated within the context of these projects, have not yet been released for public review.

Our comments on the IA and QSA were submitted on March 26, 2002 and April 16, 2002, respectively. Our comments on the IA DEIS, QSA Draft Program Environmental Impact Report, and IID/SDCWA water transfer DEIS should be considered together and are incorporated by reference into our comments on each individual action. EPA provided comments on the Salton Sea Restoration Project DEIS on May 16, 2000. These comments are incorporated by reference, given the potential adverse effects of the proposed water transfer on the Salton Sea. If you would like a copy of these comments, please call Laura Fujii, of my staff, at (415) 972-3852.

### **Response to Comment F6-1**

Please refer to the Master Responses on *Other—Relationship Between the Proposed Project and the Salton Sea Restoration Project and Other—Relationship Between the Proposed Project, QSA, IA, IOP, and CVWD Groundwater Management Plan* in Section 9 of this Final EIR/EIS.

F6-1

Based on our review of the DEIS, EPA objects to the environmental impacts of the proposed IID/SDCWA water transfer action and finds that the DEIS relies on insufficient information to evaluate key components of the action for the following reasons:

F6-2

– Significant adverse effects to surface and groundwater quality and the lack of mitigation for these adverse effects. For example, the magnitude and extent of exceedences of the selenium aquatic life criteria would increase (pg. 3.1-106) in IID drains and the New and Alamo Rivers, and total dissolved solids (TDS) could increase in Coachella Valley groundwater (pg. 5-34);

F6-3

– Significant air quality impacts and exceedences of particulate matter less than 10 microns in diameter (PM10) in a PM10 nonattainment area (pg. ES-29);

F6-4

– The lack of evaluation of potential impacts to Indian Tribes or Indian Trust Assets from all proposed actions throughout the project area. A total of thirty-five Indian tribes (see attached list) could be affected by the proposed IID/SDCWA water transfer actions and related actions (e.g., Interim Surplus Guidelines, QSA).

F6-5

– Significant impacts to biological resources, especially at the Salton Sea. The IID/SDCWA water transfer would result in a more rapid collapse of the Sea's fisheries, displacement of sizable migratory bird populations, and exposure of up to 67,000 acres of currently inundated sediment.

F6-6

– Insufficient information to fully assess the feasibility of the Habitat Conservation Plan. We question the ability of the HCP to provide sufficient mitigation to reduce adverse biological effects to a level below significance.

F6-7

– Insufficient information to assess adequately the environmental impacts that should be avoided in order to protect the environment and human health. For instance, only direct effects of narrowly defined Federal actions are evaluated for Indian Trust Assets, socio-economic, environmental justice, and transboundary impacts. In addition, no mitigation measures are identified for these potential adverse effects.

F6-8

Environmental objections indicate that our review has identified significant environmental impacts that should be avoided, via corrective measures or selection of another project alternative, to adequately protect the environment. We note that the DEIS clearly states that following (e.g., Alternative 4) and provision of replacement water for the Salton Sea (HCP Approach 2) would avoid or reduce significant and unavoidable impacts to water quality, air quality, biological resources, and recreation (pgs. 3.1-113, 4-13, 5-48). Detailed comments are enclosed with specific recommendations on how to address our objections. Our goal is to ensure comprehensive disclosure of critical issues and adverse impacts and to first avoid and, then minimize impacts to human health and the environment to the greatest extent practicable. The

### **Response to Comment F6-2**

Please refer to the Master Response on *Hydrology—Selenium Mitigation* in Section 9 of this Final EIR/EIS. Refer also to the detailed responses to Comments F6-15 and F6-17.

### **Response to Comment F6-3**

Please refer to the Master Response on *Air Quality—Salton Sea Air Quality Monitoring and Mitigation Plan* in Section 9 of this Final EIR/EIS.

### **Response to Comment F6-4**

The Draft EIR/EIS has been revised to include additional information on potential impacts to the Torres-Martinez Tribe, based on government-to-government consultation with the Tribe. The revisions also include a description of potential impacts to five other Tribes in the Coachella Valley from the use of transferred water by CVWD. These changes are indicated in this Final EIR/EIS in Section 3.9 of this Final EIR/EIS. Please also refer to the responses given for Comments F6-23, -24, and -25.

### **Response to Comment F6-5**

Please refer to the Master Response on *Biology—Approach to the Salton Sea Habitat Conservation Strategy* in Section 9 of this Final EIR/EIS.

### **Response to Comment F6-6**

The comment indicates an inability to fully assess the feasibility of the HCP, but is not specific about what aspects of the plan are of concern or which data are insufficient. The revisions to the approaches to mitigating Salton Sea impacts might address this concern. See the Master Response on *Biology—Approach to Salton Sea Habitat Conservation Strategy* in Section 9 of this Final EIR/EIS.

### **Response to Comment F6-7**

Sections 3.14 and 3.16, Socioeconomics and Transboundary Impacts of the Draft EIR/EIS, respectively, address both direct and indirect impacts of the Proposed Project. In addition, the Indian Trust Assets and Environmental Justice sections (Sections 3.9 and 3.15 of the Draft EIR/EIS, respectively) have been revised substantially to address this comment and other comments on these sections. The new sections are located in this Final EIR/EIS in Sections 3.9 and 3.15. Thus, all NEPA-only sections currently address both direct and indirect effects of the Proposed Project.

With regard to the comment on mitigation measures, with the exception of socioeconomic impacts because of fallowing in the Imperial Valley, such measures have been proposed for the potential adverse effects described in the NEPA-only sections, as necessary and applicable (for information on the air quality and sport fishery mitigation measures in the Salton Sea subregion, refer to the Master Responses for *Air Quality—Salton Sea Air Quality Monitoring and Mitigation Plan* and *Recreation—Mitigation for Salton Sea Sport Fishery* in Section 9 of this Final EIR/EIS. The IID Board will make a decision on mitigation for socioeconomic impacts because of fallowing in the Imperial Valley, if and when it approves the Proposed Project or an alternative to the Proposed Project. The groundwater impacts associated with the increase in TDS in the Coachella Valley have been determined to be significant and unavoidable. Agricultural resources impacts have also been determined to be significant and unavoidable if permanent/long-term fallowing is employed as a conservation measure in the Proposed Project.

### **Response to Comment F6-8**

Comment noted. Together, the Draft and Final EIR/EIS disclose the significant environmental issues associated with implementation of the Proposed Project and Alternatives.



identified additional information, analyses, and discussions should be included in the Final EIS (FEIS).

On the basis of these objections, we have rated the DEIS as EO-2, Environmental Objections - Insufficient Information (see attached "Summary of the EPA Rating System"). We appreciate the opportunity to review this DEIS and look forward to working with you on these issues on May 17, 2002.

The issues of quantity, priority, use, and transferability of Colorado River water within southern California and the Lower Colorado River basin are extremely complex and controversial with many diverse stakeholders. We urge Reclamation to take a leadership role in developing a forum that will pull all these disparate stakeholders together in an effort to resolve outstanding issues and to develop a comprehensive, reliable, and long-term sustainable water supply for southern California.

Should you have questions, please call Laura Fujii, of my staff, at (415) 972-3852, email: [fujii.laura@epa.gov](mailto:fujii.laura@epa.gov). Please send three copies of the final EIS to our office when it is officially filed with our HQ EPA Office of Federal Activities

Sincerely,

Signed by Enrique Manzanilla

Enrique Manzanilla, Director  
Cross Media Division

Enclosures: Detailed Comments (15 pages)  
Summary of the EPA Rating System  
List of Potentially Affected Indian Tribes  
Guidance for Incorporating Environmental Justice Concerns

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Filename: iidwatertransferdeis2.wpd

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cc: William Rinne, BOR  
Carol Roberts, USFWS  
Charles Fisher, IBWC  
Charles Keene, CA DWR  
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Bart Christensen, California EPA  
Patricia Port, DOI  
Tom Kirk, Salton Sea Authority  
Elston Grubaugh, IID  
Water Resources Division, USGS, Yuma, AZ.  
Southern California Agency, BIA  
Sacramento and Phoenix Area Offices, BIA  
Affected Indian Tribes (see attached list)

**DETAILED COMMENTS****Scope of the Evaluation and Water Supply Reliability Implications**

1. Efforts to determine the quantity, priority, use, and transferability of Colorado River water within southern California and the Lower Colorado River basin are necessary and challenging. Any approach should take into consideration potential effects on the entire region. This includes the Imperial Valley, Coachella Valley, Salton Sea, Lower Colorado River Basin and Colorado River Delta (Delta). The region should be considered in its entirety because actions taken in one part of the Basin, particularly those related to additional or modified water diversions, could have significant adverse cumulative impacts on other parts of the Basin. For instance, cumulative reduction in Lower Colorado River flows is threatening the ecological viability of the Delta. On the other hand, due to the limited storage capacity of Morelos Dam (Mexico), recent flood flows have reached the Delta significantly rejuvenating this ecosystem.

*Recommendation:*

We urge the Bureau of Reclamation (Reclamation), Imperial Irrigation District (IID), Coachella Valley Water District (CVWD), and Metropolitan Water District (MWD) to take a broad, regional approach in determining water supply reliability and the potential impacts of water supply actions on other resources and parts of the Lower Colorado River basin. For instance, the final environmental impact statement (FEIS) should include an evaluation of the effects of the IID/San Diego County Water Authority (SDCWA) water transfer on the water needs for the Lower Colorado River Multi-Species Conservation Program and the Delta.

2. Although the Draft EIS states that the water transfer will facilitate efforts to reduce California's diversions of Colorado River water in normal years to its annual 4.4 million acre-feet (maf/yr) legal apportionment, it is not clear how this reduction in Colorado River diversions would be achieved or ensured. For example, even though the IID/MWD 1988 conservation and transfer project professed to improve water use efficiencies, the actual diversion of Colorado River water by IID has increased.

*Recommendation:*

The FEIS should include a description of how the proposed water transfer would help to reduce California's Colorado River use to 4.4 maf/yr while maintaining MWD's historic use of 1.25 maf/yr. We recommend this description include tables that show the various water transfers and exchanges and the contribution that each action makes to bring California's use down to its 4.4 maf/yr allocation and/or provides for maintenance of 1.25 maf/yr in the Colorado River Aqueduct.

**Response to Comment F6-9**

There are already adequate programs in place that monitor and account for use of Colorado River water. Reclamation, under the "Law of the River" and specifically the 1964 Supreme Court Decree in *Arizona v. California*, has the responsibility to prepare and maintain complete, detailed, and accurate records of diversions of water from the mainstream of the Colorado River, return flow of such water to the stream that is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation, and consumptive use of such water. This use is recorded separately for each diverter from the mainstream, each point of diversion and each of the states of Arizona, California, and Nevada. The results are provided in an Annual Decree Accounting Report prepared by Reclamation's Lower Colorado Region.

F6-9

F6-10

### **Response to Comment F6-10**

The Draft EIR/EIS provides a description of the California Plan in Section 1.4.6 and diagrams IID's role in the plan in Figure 1-12. In addition, Chapter 2 of the QSA PEIR, which is incorporated into the Draft EIR/EIS by reference, includes a detailed description of how the Proposed Project will assist California in reducing its Colorado River water use in normal years to its annual 4.4 MAFY apportionment. Table 2.5.1 from the QSA PEIR is included below for reference.

**TABLE 2.5-1**

Anticipated Changes in River Flow from Parker to Imperial Dams in a Normal Year as a Result of the Proposed Project (negative numbers in parentheses)

	<b>Minimum (KAFY)</b>	<b>Maximum (KAFY)</b>
Proposed Project	0	(300)
Amendment to the IID/MWD 1988 Agreement and Subsequent Agreements	20	20
All American Canal Lining Project <sup>1</sup>	(67.5)	(67.5)
Coachella Canal Lining Project <sup>1</sup>	(26)	(26)
CVWD/MWD SWP Transfer and Exchange	35	0
Miscellaneous PPRs and Federal Reserved Rights	(14.5)	(14.5)
<b>TOTAL</b>	<b>(183.2)</b>	<b>(388.2)</b>

Notes: <sup>1</sup> 11.5 and 4.5 KAFY from the All American and Coachella Canal lining projects, respectively, would be made available for San Luis Rey Indian Water Rights Settlement Act purposes.

The commenter also notes that IID's diversions of Colorado River water have been increasing. Review of IID cropping and water delivery data shows that these increases in diversions correspond with a period when growers within the IID have been increasing the intensity of their irrigated land use. Because the proportion of the time when irrigated parcels, on average across the IID, are being planted to crops, this translates to a higher volumes of water being delivered to each parcel, although not to each crop, and higher diversions to the IID. Because these increases in deliveries to parcels are not equivalent to an IID-wide increase in water use by individual crops, these increases do not correspond to a reduction in irrigation efficiency. Refer to the Master Response on *Hydrology—Development of the Baseline* in Section 9 of this Final EIR/EIS.

3. EPA believes a clear accounting of the sources and quantity of water for all proposed actions is key in determining the feasibility of the proposed water transfer actions and Habitat Conservation Plan (HCP) measures. Such an evaluation is especially important given the increasing competition for scarce water supplies.

*Recommendation:*

The FEIS should include a clear accounting of the sources and quantity of water for all proposed actions. For example, provide a table describing the water source(s) and quantities for proposed HCP measures such as the proposed 190 to 652 acres of managed marsh (pg. 2-46). The accounting of water sources should include an evaluation of existing uses such as the water used by duck clubs and wildlife refuges. For example, describe whether water for the duck clubs and refuges is purchased from IID and whether this use of Colorado River water is a designated beneficial use.

4. Effective and sustainable management of water supplies depends on accurate information about water supply availability and water use. This data can only be obtained through a program of monitoring and accounting of water supply and demand. The DEIS does not include a plan to monitor the activities to be undertaken, except in general terms, nor does it indicate how such an effort would be funded.

*Recommendation:*

We urge Reclamation, IID, MWD, and CVWD, in partnership with the regulatory agencies and local communities, to make a firm commitment to timely and accurate monitoring and accounting. This commitment should include dedicated funding for the monitoring/accounting effort. The FEIS should describe proposed monitoring, accounting methods, enforcement tools, and assurance measures that will be used to verify, validate, and ensure effective implementation of the water conservation and transfer actions. Given the proposed transfer of significant amounts of water, the FEIS should persuasively demonstrate that water will be put to reasonable beneficial use and that there will be safeguards against misuse of the water.

5. The DEIS states that there would be no socioeconomic impacts (Section 3.14) or biological resource impacts (pg. 3 2-12) in the SDCWA area because there would be no induced growth (pg. 5-37). This conclusion is based upon the fact that the transfer water would replace water currently purchased from MWD. However, the IID/SDCWA water transfer appears to replace an existing unreliable water supply (priority 4, 5 or 6 water), purchased from MWD, with a reliable supply (priority 3 water), purchased from IID. Increased reliability of the water supply could significantly influence future regional land use planning and future development. In addition, by replacing the existing unreliable water supply with a more reliable one, new water supply sources may then be available for other future beneficial uses.

**Response to Comment F6-11**

The HCP identifies several mitigation measures that would be supported by water. As indicated in the HCP, mitigation of drain habitat would require the creation and maintenance of up to 652 acres of managed marsh, which could require between 9 and 12 acre-feet of water per year. Mitigation for tree habitat also would require the application of water to create and maintain tree habitat. The actual amount of created tree habitat would depend on the extent of impact (primarily to tamarisk scrub adjacent to the Salton Sea) and whether the habitat was created before or after the impact. Although extremely unlikely, the maximum requirement specified in the HCP could be up to about 2,200 acres. Water requirements for creating and establishing tree habitat could be as high as about 6 acre-feet per acre per year, with water requirements for maintenance less dependent on local soil conditions. Because of the uncertain nature of the mitigation requirements, a detailed accounting of water use as requested in the comment is not possible. However, Colorado River water (conserved through efficiency conservation or fallowing) likely would be used to support the managed marsh. Conserved water also might be used to support created tree habitats, but drain water could be used if available at suitable quality. Currently, duck clubs use either pumped groundwater where water quality is suitable or water purchased from IID. The refuges also purchase their water from IID.

**Response to Comment F6-12**

Reclamation is currently and has been monitoring diversions, return flows and consumptive uses by water users along the Colorado River since 1964. Reclamation is required by the Supreme Court (Article V, Supreme Court Decree in Arizona v. California dated March 9, 1964) to prepare and maintain complete, detailed and accurate annual records of releases of water through regulatory structures, diversions, returns and consumptive uses by State and diverter. In addition to monthly reporting and end of year accounting, Reclamation approves water use estimates by major water users before the beginning of each calendar year. Title 43, CFR 417 requires entitlement holders to provide an estimate of monthly diversion requirements for Reclamation's planning purposes, prior to the beginning of the calendar year. The diversion requirements are reviewed to ensure that the delivery request does not exceed contract holders entitlements, the water requested is put to beneficial use, the water will be available in the system and water conservation measures are put into place.

**Response to Comment F6-13 (continued)**

It is not anticipated that the SDCWA geographic area would experience increased environmental impacts with respect to biological and socioeconomic impacts as a result of increased growth in the San Diego region because it has been determined that the Proposed Project is not growth-inducing. Please refer to the Master Response on *Other—Growth Inducement Analysis* in Section 9 of this Final EIR/EIS.

**Recommendations:**

We recommend the FEIS describe the indirect impacts of replacing an unreliable water supply with a reliable supply. For instance, the IID/SDCWA water transfer may remove the SB 221 barrier to new development, which prohibits approval of new developments of at least 500 units unless a sufficient water supply is available. The FEIS should also reevaluate and validate the assumption that no socioeconomic or biological resource impacts would occur in the SDCWA area.

The FEIS should also address the consequences of Alternative 1, No Project, within the SDCWA region. If the IID/SDCWA water transfer does not occur, then SDCWA would continue to purchase water from MWD. It is clear from the DEIS that a large portion of MWD's Colorado River water supply is highly unreliable because it is based upon lower priority, surplus Colorado River water which may no longer be available on a sustainable basis.

**Water Quality**

1. EPA objects to the projected increase in concentration and magnitude of exceedences of the selenium aquatic life criteria in the New and Alamo Rivers and IID agricultural drains (pgs. 3.1-105 to 111). As noted in the DEIS, the concentration of selenium in many locations already exceeds EPA's aquatic life criteria of 5 micrograms per liter ( $\mu\text{g/l}$ ). We are also concerned with the potential for increased concentrations of perchlorate, boron, nutrients, pesticides, sediments, metals, and total dissolved solids in surface waters. An increase in water temperatures is also a concern since it may have adverse effects on an already stressed biological system. Our concern is heightened by the presence of fish-eating migratory birds and other threatened and endangered fish and wildlife species that could be adversely affected by these harmful constituents and by the bioaccumulation of selenium up the food chain.

**Recommendations:**

The DEIS states that there is no reasonable mitigation available to reduce the concentration of selenium. EPA disagrees with this statement. Although control of selenium is a difficult challenge, efforts are underway in the Central Valley of California and other locations in the West to address selenium concentration levels in agricultural drain water.

We recommend the FEIS evaluate potential mitigation measures to address the adverse increase in concentration of constituents of concern such as selenium. Potential mitigation measures include biological and chemical selenium removal; integrated drainage management; desalination; evaporation ponds; deep well injection of extremely poor drainwater; and beneficial uses of drain water and salts.

**Response to Comment F6-14**

The Master Response on *Hydrology—Selenium Mitigation* in Section 9 of this Final EIR/EIS, addresses selenium-related issues raised in this comment, and the Master Response on *Hydrology—TMDLs* addresses how the Proposed Project would be likely to alter concentrations of sediment and nutrients. As the Draft EIR/EIS explains, the reductions in sediment and nutrient loadings that would result from implementation of the Proposed Project would lead to parallel reductions in pesticide loadings because the mechanisms that govern sediment and nutrient loadings to drains also apply to pesticides.

With respect to temperature, the reduced proportion of drainage flow originating from tailwater and the increased proportion contributed from tilewater would be likely to have a moderating effect on the temperature of waters discharged to drains and lead to an overall reduction of the temperature of drainage flows at their points of entry to the drainage system. In addition, the Master Response on *Biology—Approach to Salton Sea Habitat Conservation Strategy* in Section 9 of this Final EIR/EIS describes how additional water would be routed through the IID system for discharge to the Sea. Although the source of this mitigation water may vary, it would undoubtedly be cooler than the tailwater discharge that it replaces. Therefore, given the greater proportion of tilewater in drainage flows and the routing and discharge of mitigation water, it is unlikely that water temperatures in IID drains and in the Salton Sea under the Proposed Project would be higher than those under the Project Baseline.

In addition, the Regional Water Quality Control Board (RWQCB) is developing Total Maximum Daily Loads (TMDL) for selenium and nutrients in the Salton Sea. TMDLs are based on the quantitative assessments of sources of pollutants to a water body. Each source is allocated a pollutant load so as to reduce levels sufficiently to achieve water quality standards. We encourage Reclamation, IID, CVWD, and MWD, to work with the Regional Water Quality Control Board, EPA and local Indian tribes as they develop TMDLs and other measures to address water quality problems.

Proposed actions to reduce the amount of water applied to agricultural fields to achieve the objectives of the water transfer should be consistent with Best Management Practices employed to achieve TMDL load values. We note that the costs and risks associated with on-farm irrigation system improvements can be reduced by integrating proposed conservation measures with the TMDL program, Farm Bureau's Environmental Quality Incentives Program (EQIP), and EPA's Nonpoint Source Pollution (NPS/319) program.

The DEIS also does not provide sufficient discussion on the potential impact of increased water temperatures or increased concentrations of perchlorate, boron, pesticides, nutrients, sediments, metals, and total dissolved solids in a reduced volume of surface water. Many of these constituents, such as perchlorate, can have serious adverse effects on human health and the environment. We recommend that the FEIS address the potential impacts of water temperature and constituent concentrations related to the reduced volume of drainage water flowing into the New, Alamo, and Whitewater Rivers and the Salton Sea. The FEIS should also provide an evaluation of the cumulative effects of possible increased concentrations of these constituents of concern.

F6-14

F6-15

2. We note that the models (Imperial Irrigation Decision Support System and Salton Sea Accounting Model) used for the hydrological and water quality effects analysis use either the IID drainage system conservation measures or a worst case scenario in which all conserved water is transferred out-of-basin (pg. 3.1- 93 to 101). However, the IID/SDCWA water transfer, as amended by the Quantification Settlement Agreement (QSA), would transfer conserved Colorado River water to Coachella Valley to address their groundwater overdraft problem. Colorado River water would be used in lieu of groundwater or for groundwater recharge. The use of Colorado River water to recharge the overdrafted Coachella Valley groundwater aquifer is a matter of concern for EPA. Furthermore, the DEIS does not evaluate the effects of Coachella Valley groundwater recharge on Indian Trust Assets because the recharge action is a non-federal action. The DEIS does not appear to provide a detailed description or evaluation of potential groundwater effects which may result from the transfer of conserved water to Coachella Valley.

### Response to Comment F6-15

The Proponents recognize that while the impact of recharge on groundwater levels would be beneficial, the impact on groundwater quality in certain parts of the basin is anticipated to be significant because of the higher concentration of TDS and other constituents in Colorado River water than in some local groundwater. With respect to TDS, the anticipated increase would not impair any beneficial uses of the water, as defined by 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. The TDS of the local groundwater is also highly variable. There are portions of the groundwater basin with native TDS levels higher than Colorado River water. Mitigation to reduce the higher TDS of Colorado River water to the equivalent of groundwater was evaluated and determined to be financially and environmentally infeasible.

The California Department of Health Services (DHS) set a provisional action level for perchlorate at 18 ppb until January 18, 2002, when it was lowered to 4 ppb. An action level is not an enforceable drinking water standard, but a health-based advisory level for chemicals that do not have formal maximum contaminant levels. 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.

In March 2002, the State Office of Environmental Health Hazard Assessment proposed a public health goal (PHG) of 6 ppb for perchlorate. A PHG is the first step in developing an MCL (DHS' goal is to have an MCL for perchlorate by 2004). A PHG is a concentration at which no adverse health effects would occur after a lifetime of consumption of water at this concentration. No federal drinking water standard has yet been set for perchlorate.

Perchlorate enters the Colorado River water system along Las Vegas Wash, which drains into Lake Mead. Perchlorate concentrations decrease as Colorado River water flows down river because of incoming flows. Water from MWD's Colorado River Aqueduct had perchlorate concentrations ranging from 4 to 8 ppb between 1997 and 2001. IID reports perchlorate concentrations in the All American Canal

### **Response to Comment F6-15 (continued)**

of 4.2 to 5.3 ppb during 2001-2002. The CVWD water samples found no perchlorate in water from the Coachella Canal (the detection limit is 4 ppb). In 2001, CVWD tested all its active wells in May and in October/ November. Only one well near Avenue 54 and Jefferson had detectable perchlorate (5.0 and 5.9 ppb from two different laboratories).

At the same time, the Nevada company responsible for the perchlorate entering Las Vegas Wash constructed and is operating a perchlorate treatment system. The treatment processes are anticipated to significantly decrease perchlorate concentrations in Las Vegas Wash, and thus in the Colorado River water, over approximately the next 6 years. The date cannot be predicted exactly as the concentration is also a function of flow in the river, which is dependent on rainfall. Perchlorate sediments already exist in Las Vegas Wash sediments and will be flushed out over time at a rate that depends on rain events. By the time the Dike 4 area recharge basin goes on line in roughly 2005, the perchlorate level in the Colorado River water from the Coachella Canal will be lower than at present. In addition, CVWD groundwater modeling estimates that the recharge in Dike 4 will take approximately 10 to 20 years to reach the Torres Martinez wells.

Should recharge of Colorado River water cause any Torres Martinez domestic drinking water well to exceed any recognized health-based water quality standard, CVWD will work with the Tribe to bring the drinking water supply of the Tribe into compliance by either providing domestic water service to the Tribe from the District's domestic water system, or by providing appropriate wellhead treatment.

The lack of such an evaluation is problematic since the QSA Draft Program EIR states that the use of Colorado River water, which is high in total dissolved solids (TDS), for groundwater recharge, could cause the lower aquifer groundwater to exceed EPA's 500 milligrams per liter (mg/l) water quality standards. The proposed groundwater recharge area is located near Martinez Canyon below Lake Calhoun, less than one mile from a primary drinking water well for the Torres Martinez Indian Reservation. Other tribes within the Coachella Valley, the Cabezon, Agua Caliente, Twenty-Nine Palms, and Augustine tribes, may also have concerns regarding potential adverse effects to their groundwater resources.

In addition, perchlorate has been detected at concentrations from 4 to 10 parts per billion (ppb) in Colorado River water at sampling points between Hoover Dam and the Mexican Boundary since testing began in 1997, including 8 ppb in the most recent Hoover Dam sample on February 22, 2002. On January 18, 2002, the California Department of Health Services (CA DHS) lowered the State Action Level for perchlorate in drinking water to 4 ppb and requires water agencies to notify public officials if this level is exceeded. Thus, the water that will be used to reduce the groundwater overdraft could exceed recommended drinking water standards for perchlorate, potentially adversely affecting a drinking water source of the Torres Martinez Tribe.

*Recommendation:*

EPA understands that Reclamation, IID, CVWD, and MWD chose to defer evaluation of Coachella Valley groundwater effects to CVWD's Water Management Plan Draft EIR. We note that this document has not been released for public review. Furthermore, its proposed release date continues to be delayed. In the interest of full disclosure, we believe that the FEIS should include a more detailed description of the Coachella Valley Water Management Plan. This description should include, to the maximum extent feasible, a detailed evaluation of potential adverse effects of the groundwater recharge, as proposed, on tribal and Coachella Valley drinking water sources and groundwater quality. There is concern that the aquatard between aquifers could be permeable, resulting in the contamination of the higher quality aquifer used for drinking water. If there is a risk of contamination to tribal or other drinking water sources, the FEIS should evaluate potential mitigation measures.

3. As we have indicated in the previous comment, EPA is concerned with the potential cumulative impacts of the proposed IID/SDCWA water transfer and related actions on perchlorate concentrations and distribution in water provided for drinking water use. Perchlorate is a serious concern because of its potential adverse health effects, particularly to children. Perchlorate has been on the Contaminant Candidate List for several years. EPA is in the process of developing information that would support a specific regulatory level. As of January 2001, perchlorate was included in EPA's nationwide "Unregulated Contaminant Monitoring Requirement" for public water supplies, with a method detection level of 4 ppb.

**Response to Comment F6-16**

See previous response given for Comment F6-15.

As noted above, CA DHS has recently lowered the State Action Level for perchlorate in drinking water to 4 ppb, requiring water agencies to notify public officials if this level is exceeded. As the first step in developing an enforceable Primary Drinking Water Standard for California, the California Office of Environmental Health Hazard Assessment has begun accepting public comments on a draft Public Health Goal of 6 ppb for perchlorate in drinking water supplies. EPA's National Center for Environmental Assessment recently published a draft Toxicity Health Assessment recommending a dose of approximately 1 ppb as a safe level for perchlorate in drinking water.

*Recommendation:*

We recommend the FEIS provide data on the predicted levels of perchlorate in Colorado River water diverted for domestic drinking water use. If no data is available, we urge Reclamation, IID, CVWD, MWD and other Colorado River interests to work together to develop and implement monitoring and research programs to obtain this data. The FEIS should describe existing or planned actions to obtain additional information on levels of perchlorate and to address the presence of this contaminant in water taken from the Colorado River.

F6-16

4. The Regional Water Quality Control Board is developing TMDLs for various contaminants in the Salton Sea, New, Alamo and Whitewater Rivers and agricultural drains. Implementation of the specific TMDL program may or may not be consistent with the activities to be undertaken to reduce water use associated with the water transfer.

*Recommendation:*

EPA has a strong interest in ensuring actions that may affect the Salton Sea are consistent with TMDL requirements and the need to meet water quality standards. Therefore, we recommend TMDL actions be integrated into the proposed IID/SDCWA actions, where applicable, and their impact on the objectives of the transfer fully described in the FEIS.

F6-17

5. It is likely that tilewater salinity and selenium loadings are not uniform across IID's service area.

*Recommendation:*

We urge voluntary implementation of water conservation measures and fallowing on lands identified as contributing the highest contaminant loadings to the New, Alamo, and Whitewater Rivers, Salton Sea, and IID drains.

F6-18

6. Until recently, the US Geological Survey (USGS) performed regular monitoring of water quality in the Lower Colorado River. As part of the National Stream Quality Accounting Network (NASQAN), this vital water supply was well characterized by this comprehensive and

F6-19

**Response to Comment F6-17**

IID does not anticipate that implementation of the Project or alternatives will interfere with implementation of TMDL BMPs and compliance efforts. On-farm conservation methods may in fact help the District and its water users reach targets associated with the TMDL program.

IID and its water users intend to comply with the silt TMDLs as agreed to in the Basin Plan Amendment adopted by the California Regional Water Quality Control Board (Regional Board) specifying compliance measures based primarily on farmer implementation of BMPs. IID has been actively involved in development of the silt TMDLs for the Alamo and New River and for flows contributing directly to the Salton Sea. And in response to the developed TMDL, the District also cooperates with the Imperial County Farm Bureau on a voluntary compliance program.

IID is also working with the Regional Board to develop a nutrient TMDL for the Salton Sea, and foresees similar compliance programs based on BMP implementation.

According to discussions with the Regional Board, the proposed effort targeting selenium reduction will result in a TMDL that will be implemented throughout the Colorado River Basin and will focus on source reduction in the Colorado River Basin.

Please also refer to the Master Responses on *Hydrology—Selenium Mitigation* and on *Hydrology—TMDLs* in Section 9 of this Final EIR/EIS.

**Response to Comment F6-18**

The commenter suggests selection of lands for implementation of water conservation measures and fallowing based on the level of contribution of these lands to contaminant loadings. In fact, evidence suggests that the level of contaminant loading in a particular area is more dependent on management practices than on local land characteristics, particularly when the constituents of concern are salinity and selenium. In the case of the IID water service area, the source of these contaminants is the Colorado River supply water rather than the leaching of the local soils. Therefore, implementation of water conservation measures are likely to have similar overall contaminant loading implications regardless of the specific location of implementation.

**Response to Comment F6-19**

Comment noted.

long-term monitoring program. As of October 2000, the monitoring program has been curtailed, due to lack of funding.

*Recommendation:*

With the potential changes in the management of flow and storage in the Colorado River system and increased use of the water for direct human consumption, a reliable and comprehensive monitoring program relating to water quality is critical. The FEIS should describe any actions taken to support including the Colorado River in the NASQAN. We urge Reclamation, IID, CVWD, and MWD, as managers and users of the Colorado River resource, to advocate for and pursue funding to restore the USGS NASQAN effort, a critical part of water quality monitoring of the Colorado River.

**Response to Comment F6-20**

Please refer to the Master Response on *Air Quality—Salton Sea Air Quality Monitoring and Mitigation Plan* in Section 9 of this Final EIR/EIS.

**Air Quality**

1. The IID/SDCWA water transfer could result in exposure of 67,000 acres (approximately 105 square miles) of land currently inundated by the Salton Sea. The DEIS states that the surface elevation of the Salton Sea is expected to decline at a faster rate and to a greater extent with the water transfer. The evaluation of soils and potential air quality impacts states that exposed Salton Sea sediments would dry with a crust covering which would minimize the ability of winds to generate dust emissions (pg. 3.3-23).

EPA disagrees with the statement that the exposed lake bed, caused by reduced inflows to the Salton Sea, would dry and form a crust covering which would minimize the ability of winds to generate dust emissions. EPA believes that the crust formed may breakup under natural events similar to the Owens dry lake bed in California. These natural events could come from ground water evaporation, surface moisture, or rain. EPA also believes that human disturbances associated with off-road vehicle traffic (dune buggies, all-terrain vehicles, and dirt bikes) as well as hunting, fishing, boat launching activities and foot traffic could fracture the crust. These events can cause the surface to crack and, when exposed to wind, will contribute to particulate matter less than 10 microns in diameter (PM10) emissions. The Owens dry lake bed is approximately 105 square miles of which 35 square miles (22,400 acres) are highly emissive. Crust formations do accrue upon the Owens dry lake bed that can sustain the weight of a car. As the weather changes, these surfaces break up and cause the worst PM10 emissions in the United States.

EPA objects to the potential air quality impacts of exposed Salton Sea sediment. Our objections are increased by the lack of information and data regarding constituents of the sediments and its potential behavior when exposed to high winds and human disturbance. We note that there is widespread local concern regarding the constituents of the exposed sediment and its potential to cause adverse human health and environmental effects.

*Recommendations:*

We strongly recommend that Reclamation and other stakeholders initiate and participate in a study to determine the durability and sustainability of crust formations on the exposed Salton Sea shoreline. We note that the composition of the sediments and weather patterns may vary along the shoreline and affect crust formation. This fact should be considered when designing the study.

We recommend that the FEIS include a description of the composition of the sediments and the risk of adverse human health and environmental effects if this sediment becomes airborne. If specific data is not available, the FEIS should describe research and data needs and commit to participate in efforts to obtain this critical information.

The FEIS should also evaluate possible control measures for the newly exposed shoreline. Control measures could include, but are not limited to, the introduction of native plants to provide ground cover. Human disturbances along the exposed shore line should also be addressed as they too can contribute to PM10 and dust emissions. It may be necessary to limit public access to certain areas of the shore line. A PM10 monitoring network should be established around the Salton Sea as soon as possible in order to determine baseline emissions and for use in determination of PM10 violations of the National Ambient Air Quality Standards (NAAQS).

F6-20

2. The use of conserved water to replace the loss of inflow into the Salton Sea has been suggested as mitigation for potential air quality impacts from exposed sediments (pg. 3.7-36). Replacement water would maintain the existing inflows to the Salton Sea, avoiding and minimizing the reduction in the Sea's surface elevation and exposure of currently inundated land. The DEIS also suggests that a Salton Sea monitoring and mitigation plan could be developed with the South Coast Air Quality Management District and Imperial County Air Pollution Control District (pg. 3.7-36).

F6-21

*Recommendations:*

EPA recognizes water conservation and fallowing as tools to avoid, minimize and mitigate for potential impacts of the proposed actions. Thus, we wish to acknowledge the second mitigation strategy of utilizing conserved water to help address adverse air quality impacts of the IID/SDCWA water transfer. We note that fallowing is a very controversial issue and has been rejected by many of the local communities. We recommend the FEIS provide a more detailed evaluation of the feasibility and process of using conserved water to avoid and minimize adverse air quality effects on the Salton Sea.

**Response to Comment F6-21**

Please refer to the Master Response on *Air Quality—Salton Sea Air Quality Monitoring and Mitigation Plan* in Section 9 of this Final EIR/EIS.

F6-21

The FEIS should also describe other mitigation measures which could help address adverse effects of exposed Salton Sea sediments. We urge Reclamation, IID, CVWD, and MWD to work with affected Air Pollution Control Districts and Management Districts to develop a detailed monitoring and mitigation plan. The monitoring and mitigation plan should be included in the FEIS, if possible.

**Response to Comment F6-22**

Both square feet and acre units have been provided for the convenience of the reader.

F6-22

3. The projected change in Salton Sea surface elevations and exposed shoreline is described and evaluated under a number of resource areas (hydrology and water quality, air quality, recreation). The unit of measurement and numbers are not consistent with differences of up to 7 feet (15 foot drop versus a 22 foot drop) in the estimate of surface elevation changes. Given the shallow north and south shorelines, these differences could translate to significantly different estimates of exposed shoreline (50,000 acres versus 67,000 acres).

**Response to Comment F6-23**

Reclamation sent a memorandum to 55 Indian Tribal representatives on April 26, 2001, inviting them to enter into government-to-government coordination pursuant to CEQA regulations for implementing the procedural provisions of NEPA; the National Historic Preservation Act; and Executive Order 13175 of November 6, 2000, pertaining to consultation and coordination with Indian tribal governments. Reclamation has met with CRIT staff and has had numerous telephone conversations to discuss potential impacts to the CRIT from the proposed action, and is providing a grant to CRIT under which CRIT has hired an independent consultant to review the hydropower-related studies conducted for this EIR/EIS. At CRIT's request, a formal government-to-government consultation meeting will not occur until after this review has been completed. Please also refer to the response given for comment T2-11.

*Recommendation:*

The FEIS should correct these inconsistencies. For instance, Table 3.6-4, Recreation (pg. 3.6-12) should match numbers in Section 3.1 on Hydrology and Water Quality and Section 3.7 on Air Quality ( pg. 3.7-34). We recommend the FEIS use either square miles or acres instead of using these measurement units interchangeably.

**Tribal Resources and Consultation and Coordination with Indian Tribal Governments**

F6-23

1. The evaluation of impacts to Indian Trust Assets is limited to potential impacts from Federal actions within the Lower Colorado River and Salton Sea geographic subregions. EPA objects to the lack of evaluation of potential impacts to Indian Tribes or Indian Trust Assets from all proposed actions and the limited geographic scope of the evaluation. A total of thirty-five Indian tribes (see attached list) could be affected by proposed IID/SDCWA water transfer actions and related actions such as the Interim Surplus Guidelines and QSA: five tribes on the lower Colorado River; six tribes in the Salton Sea watershed; six tribes that use or may be affected by the Central Arizona Project; and 18 tribes within San Diego County. Furthermore, there are a number of tribes (Torres Martinez, Coachella Valley Tribal Consortium, and 18 tribes in San Diego County) that could be directly affected by IID/SDCWA water transfer actions. These tribes have broad regulatory and land management authority for resources within and traversing their reservations. For instance, the Torres Martinez and Coachella Valley Tribal Consortium are currently establishing beneficial use criteria for waters in and under their reservations and are developing water quality standards and TMDLs to protect these uses.

A Reclamation staff person has also met with representatives of the Torres Martinez Band of Desert Cahuilla Indians to discuss potential impacts to the Salton Sea and the Tribe's reservation, portions of which lie beneath the Sea. FWS sent a letter to the Torres Martinez Band of Desert Cahuilla Indians on March 14, 2002, requesting a government-to-government consultation meeting, and the meeting was held on April 12, 2002. The meeting was attended by representatives of the Torres Martinez Band of Desert Cahuilla Indians, Reclamation, USFWS, the Bureau of Indian Affairs, and the EPA. USFWS also sent a letter on April 8, 2002 to five Tribes in the Coachella Valley, offering technical assistance and government-to-government consultations regarding the water transfer.

The Cocopah Indian Tribe has expressed concern about the cumulative decrease in water to the Limitrophe. The Limitrophe is a 22-mile stretch of the Lower Colorado River that forms the boundary between Mexico and the US, as agreed to in the Gadsden Treaty (1853). It is a major part of the Cocopah Tribal lands. The Cocopah are working to have the Limitrophe designated an International Wildlife Refuge. Furthermore, the Tribe exists on both the US side

This Final EIR/EIS includes an evaluation of potential impacts to Indian Tribes in the Coachella Valley, based on planned water use by CVWD. We believe the SDCWA and MWD service areas were correctly excluded from the evaluation, since the Proposed Project would not result in construction or operation of new facilities in the service areas. The CAP Tribes were not included in the evaluation because the water transfers would have no effect on CAP water deliveries.

### **Response to Comment F6-23 (continued)**

With respect to the Cocopah Tribe, the proposed water transfers would not impact normal river flow in the portion of the Colorado River system below Imperial Dam. There would be slight changes in excess flows (e.g., primarily flood control operations at Hoover Dam) as a result of the proposed Inadvertent Overrun Policy. The impact to excess flows in this reach of the river is described in the IA EIS (see Section 3.12.2 or Appendix C). The Final EIR/EIS correctly concludes that there would be no adverse impact to Tribal Trust Assets of the Cocopah Tribe.