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# **ENVIRONMENTAL EVALUATION**

**New Information Related to the  
Colorado River Water Delivery Agreement  
and its Relevance to the  
Implementation Agreement, Inadvertent Overrun  
and Payback Policy, and Related Federal Actions  
Final Environmental Impact Statement**

**October 2003**

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## ATTACHMENTS

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| A | Colorado River Water Delivery Agreement   |
| B | Technical Memorandum: Review of Potential Hydrologic Effects Associated With<br>Colorado River Water Delivery Agreement   |
| C | Review of December 18, 2002 Final Biological Opinion (BO) on Reclamation’s Proposed<br>Section 7(a)(1) Conservation Measures for Listed Species in the Imperial Irrigation<br>District (IID)/Salton Sea Areas in Light of Revised Colorado River Water Delivery<br>Agreement, and U.S. Fish and Wildlife Service Letter of Concurrence dated October 7,<br>2003 |

## 1.0 INTRODUCTION

### 1.1 PURPOSE OF THIS ENVIRONMENTAL EVALUATION

The purpose of this Environmental Evaluation is to evaluate new information related to the Colorado River Water Delivery Agreement (Water Delivery Agreement) and its relevance to the *Implementation Agreement (IA), Inadvertent Overrun and Payback Policy (IOP), and Related Federal Actions Final Environmental Impact Statement (EIS) (Final IA EIS)*. The Water Delivery Agreement would implement the Federal actions necessary for full implementation of the Quantification Settlement Agreement (QSA).

The QSA would implement major components of California's draft Colorado River Water Use Plan (California Plan) and provide part of the mechanism for California to reduce its diversions of Colorado River water to the State's normal year apportionment of 4.4 million acre-feet (MAF). The QSA components would provide a framework for conservation measures and water transfers for a period of up to 75 years. The Coachella Valley Water District (CVWD), Imperial Irrigation District (IID) and The Metropolitan Water District of Southern California (MWD) are signatories to the QSA.

The Secretary of Interior (Secretary) proposes to take Federal actions necessary to support the implementation of the QSA. Specifically, the Secretary would execute an agreement wherein the Secretary agrees to make changes in the amount and/or location of deliveries of Colorado River water that are necessary to implement the QSA. In addition, the Secretary would adopt an IOP, which establishes requirements for payback of inadvertent overuse of Colorado River water by users in the Lower Division States. These two actions, as well as the implementation of biological conservation measures to offset potential impacts to listed species from the change in point of diversion on the Colorado River (from the water transfers), are the Federal actions described in the Final IA EIS.

The Final IA EIS was filed with the Environmental Protection Agency (EPA) on November 1, 2002. Subsequent to the publication of the Final IA EIS, the signatories of the QSA continued negotiations to finalize the terms of the QSA. The negotiations of the terms of the QSA resulted in minor changes to the version of the agreement that was the basis for the evaluation in the Final IA EIS. In addition, United States Fish and Wildlife Service (FWS) issued a final Biological Opinion (BO) in December 2002 on the United States Bureau of Reclamation's (Reclamation) proposed species conservation plan, which was designed to provide incidental take authorization for IID's water conservation actions associated with the QSA. The measures included in the final BO are refined and improved from those presented in the Final IA EIS.

An Environmental Evaluation was prepared in December 2002 to consider the revised QSA water delivery schedule (as defined in December 2002) and the changes to the proposed species conservation plan, to determine whether or not Reclamation should prepare a supplement to the Final IA EIS prior to issuance of a Record of Decision (ROD). It was concluded that the proposed changes to the QSA water delivery schedule (as of December 2002) and to Reclamation's species conservation plan were not considered substantial changes to the proposed action and that preparation of a supplement to the Final IA EIS was not necessary.

Neither the QSA nor the IA was executed in 2002. Since December 2002, the California parties have negotiated additional changes in the terms of the QSA. As part of the discussions with the Department of the Interior, the Federal IA was replaced by the shorter Water Delivery Agreement. The Federal actions called for in the Water Delivery Agreement are essentially the same as those considered in the IA, but the Water Delivery Agreement reflects the final changes in the schedule of QSA water transfers agreed to by the California parties in September 2003. Reclamation determined that a new Environmental Evaluation was needed to describe the environmental impacts of the water delivery schedule as defined in the Water Delivery Agreement, as compared to the environmental impacts described and analyzed in the Final IA EIS. This new evaluation is needed to determine whether any of the conditions requiring preparation of a supplement to the EIS are met. Since the new Environmental Evaluation is designed to supercede the Environmental Evaluation prepared in December 2002, this document also describes and analyzes the environmental impacts of the changes to Reclamation's proposed species conservation plan, which were previously discussed in the December 2002 Environmental Evaluation.

Although payback of overruns pursuant to annual operations does not require environmental compliance, this Environmental Evaluation also includes an analysis of the 2001 and 2002 overrun paybacks, as described in the Water Delivery Agreement, to ensure completeness in the environmental evaluation. This is a voluntary undertaking by Reclamation.

## **1.2 REGULATORY SETTING**

According to Council on Environmental Quality (CEQ) regulations for implementing National Environmental Policy Act (NEPA) (40 Code of Federal Regulations [CFR] 15029[c][1]), a Federal agency must prepare a supplement to a Final EIS if:

- The Federal agency makes substantial changes in the proposed action that are relevant to its environmental effects.
- There are significant new circumstances or information relevant to the environmental concerns that bear on the proposed action or its impacts.

## **1.3 BRIEF OVERVIEW OF THE QSA AND WATER DELIVERY AGREEMENT**

### **QSA**

The QSA is a proposed agreement among CVWD, IID, and MWD to budget their portion of California's apportionment of Colorado River water among themselves and to make water conserved in the IID service area and by lining the Coachella and All America Canals available to CVWD, MWD, SDCWA, and others. Implementation of the QSA would not affect the diversion, distribution, and/or use of Colorado River water except within California. Within California, the QSA would only affect the diversion, distribution, and/or use of Colorado River water by the participating agencies (CVWD, IID, MWD, and SDCWA). Although not a signatory to the QSA, SDCWA would benefit from the QSA since the QSA would facilitate implementation of the 1998 IID/SDCWA Water Conservation and Transfer Agreement. The QSA would not affect the diversion, distribution, and/or use of Colorado River water by other agencies within California that hold rights to Colorado River water.

The QSA quantifies, by agreement, the amount of Colorado River water available to each of the participating agencies and calls for specific changes in the distribution of that water among the agencies for the quantification period. The quantification period extends for up to 75 years, although the QSA anticipates a transition period of approximately 25 years for the full implementation of water conservation/transfers and exchange projects. Many of the water conservation and transfer components of the QSA would be implemented incrementally over a period of several years.

### **Colorado River Water Delivery Agreement**

The Water Delivery Agreement, a proposed agreement among CVWD, IID, MWD, SDCWA, and the Secretary which replaces the IA, specifies the Federal actions that would be necessary to implement the QSA. The execution of the Water Delivery Agreement would authorize changes in the amount and/or location of deliveries of up to about 391 thousand acre-feet per year (KAFY) of Colorado River water (see Table 1-1). While the Final IA EIS focuses on environmental impacts on the Colorado River, it also summarizes and incorporates by reference descriptions of off-river impacts in the water agency service areas associated with the QSA. For example, the Final IA EIS summarizes and incorporates by reference an analysis of environmental impacts to the Salton Sea that result from IID's water conservation actions associated with the QSA. This analysis was developed by IID and was included in the *Final IID Water Conservation and Transfer Project EIR/EIS (October 2002)* (which was filed with the EPA the same date as the Final IA EIS).

## **1.4 CHANGES TO THE PROPOSED ACTION AND SUMMARY FINDINGS**

### **Water Delivery Agreement**

The Water Delivery Agreement reflects the final changes in the QSA agreed to by the California parties in September 2003. It also incorporates understandings reached between the Department of the Interior and the California parties regarding payback of 2001 and 2002 overruns, conditions for satisfaction of the benchmarks for reductions of agricultural water use established in the Department of Interior's Interim Surplus Guidelines<sup>1</sup> (ISG), and other related issues. Exhibit B of the Water Delivery Agreement provides the revised water delivery schedule (see Attachment A). The primary differences between the IA and the Water Delivery Agreement, and our summary conclusions of impact, are as follows:

- The change in water delivery ("ramp-up") schedule for the transfer of water from IID to SDCWA and from IID to CVWD is summarized in Table 1-1. In general, there is a decrease in the transfer of water to SDCWA during the first 18 years and a slight increase in years 19 and 20. There is a total decrease of 90 KAF in the water delivery to CVWD for the first 15 years, but this would be made up between years 16 through 45.

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1 Interim Surplus Guidelines (ISG) comprise a strategy adopted by the Secretary to provide mainstream users of Colorado River water, particularly those in California that currently utilize surplus water, a greater degree of predictability with respect to the likely existence, or lack thereof, of a surplus determination in a given year for the ISG period (2002 to 2016). The guidelines facilitate California's transition to use of a reduced supply of Colorado River water. For the ISG to remain in effect, the Secretary has required that California reduce its water use over the ISG period and has set specific "benchmark" reductions for years 2003, 2006, 2009, and 2012.

Impact of the change: The reduced rate of implementation of the water transfers means that the environmental impacts of the transfers would be delayed somewhat, but by 2027 the impacts would be as described in the Final IA EIS. The maximum amount of water transferred could increase slightly in years 24 through 45 (by 3 KAFY<sup>2</sup>, see Table 1-1). This increase is not considered a substantial change, and would not have a discernible effect due to its small size.

- “Early” water transfers to SDCWA would be postponed until 2020. Early water transfers to MWD would be deleted. These changes are included in Table 1-1.

Impact of the change: Because of the small quantities of water involved, these changes are inconsequential in terms of environmental impact. The total amount of water transferred is still within the range described in the Final IA EIS.

- The initial term of the IID/SDCWA Agreement would start in the year 2003 or 2004 instead of 2002.

Impact of the change: Delaying the start date of the agreement by one or two years does not constitute a substantial change. While the environmental impacts may be delayed, the change does not create new or more severe impacts.

- SDCWA would receive MWD rights of up to 77.7 KAFY conserved water from the All American and Coachella Canal lining projects. This change is reflected in Exhibit B of the Water Delivery Agreement. Additionally, the revised water delivery schedule assumes the entire Coachella Canal lining water would become available in 2006 and the All American Canal lining water would become available beginning in 2008.

Impact of the change: Since no change in the point of diversion would be involved with this transaction, there would be no environmental effects related to hydrology and water quality of Lake Mead, Lake Powell, the Colorado River, or the Salton Sea. This water would replace water that MWD would have otherwise delivered to SDCWA so that the overall amount of Colorado River water and MWD water used in the SDCWA service area would remain the same.

The Final IA EIS assumed water conserved from the All American Canal lining project would be available beginning 2005, with full implementation in 2007; water conserved from the Coachella Canal lining project would be available beginning 2003, with full implementation in 2006. As with the slower ramp-up rate of water deliveries, the delay in commencing and realizing full delivery of the conserved water from the lining projects would serve to delay the environmental impacts of the transfers. Because the commencement of full deliveries is delayed only a year and due to the relatively small amount of water involved, the effect is negligible.

- A total of up to 145 KAF of water conserved by IID could be transferred to urban agencies in 2006, 2009 or 2012 to meet the ISG benchmarks. This change is reflected in Exhibit B of the Water Delivery Agreement.

Impact of the change: Reclamation analyzed the effects of this potential additional water transfer on Salton Sea salinity and water quality in IID drains to determine whether the terms of the Water Delivery Agreement would affect the analysis of impacts included in Reclamation’s 2002 Biological Assessment

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2 Due to the postponement of the “early water” in the revised water delivery schedule to years 2021-2023, there would be a decrease in flow, over the maximum impact scenario in the Final IA EIS, of 8 KAF in 2021 and 5.5 KAF in 2022. In years 2023-2047, the decrease would be 3 KAFY.

(BA) and FWS' 2002 BO. The BA and BO addressed voluntary fish and wildlife conservation actions to be undertaken by Reclamation, IID, CVWD, and SDCWA, and specifically analyzed the possible effects of IID's water conservation actions, related to the water transfers, on listed species. Reclamation concluded that the conservation measures proposed in its 2002 BA and reflected in the 2002 BO are still adequate to offset the impacts, and there would be no effect on listed species from the potential conservation of the additional ISG benchmark water (see Attachment C). The effect on river flows below Parker Dam was also analyzed. Additional transfers, if needed, would reduce flow below Parker Dam in the three affected ISG benchmark years 2006, 2009, and 2012. However, because of the slower ramp-up rate under the Water Delivery Agreement, the total transfers in those three years would still be below the amounts considered in the Final IA EIS. No additional impacts would occur.

- When requested by MWD, up to an additional 100 KAFY of water would be delivered by the Secretary to CVWD at Imperial Dam for the purpose of satisfying an exchange between CVWD and MWD for State Water Project water (the Final IA EIS considered an exchange of 35 KAFY).

*Impact of the change:* When requested by MWD, this water delivery would have a beneficial effect (increase) on river flow below Parker Dam, since the water would otherwise have been diverted by MWD at Lake Havasu. However, since it may not be requested in every year, and the maximum amount of 100 KAFY is not expected to be available in all years, this transfer was not included in the revised water delivery schedule analyzed in Appendix B. Although this exchange was not part of the QSA, it was included in CVWD's groundwater modeling presented in the CVWD Water Management Plan Program Environmental Impact Report (February 2003) and was incorporated by reference in the Final IA EIS. No additional environmental impacts would occur from this water delivery.

- IID would provide up to 800 KAF of conserved water, referred to as the Salton Sea "Mitigation Increment," during the first 15 years of the Water Delivery Agreement, as noted in Exhibit B of the Agreement (column 7). This water would be transferred to SDCWA and, through an exchange for non-Colorado River water, delivered to the Salton Sea for 15 years, in order to offset reductions to Salton Sea inflows from other IID water transfers. This commitment was made by the parties as part of the new, slower ramp-up rates agreed to in late 2002, and is consistent with the analysis in the FWS 2002 BO. A portion of this water could be transferred to MWD subject to applicable Federal approvals, only if a Salton Sea restoration plan is approved by the California Secretary of the Resources Agency.

*Impact of the change:* Impacts to the Salton Sea would be within the range of impacts described in the Final IA EIS. The Final IA EIS described two scenarios regarding reductions of inflow into the Salton Sea. The first, described as the Salton Sea Habitat Conservation Strategy (SSHCS), would have provided "mitigation" water to the Sea through the year 2030, and would have maintained salinity levels below 60,000 milligrams per liter (mg/L) until that time. The second scenario assumed no mitigation water to the Sea, and is considered to represent the "maximum impact scenario" for purposes of analyzing Salton Sea impacts. The current proposal would fall between these two scenarios, as it would provide "mitigation" water to the Sea for fifteen years. The potential transfer of this "mitigation increment" to MWD was not analyzed in the Final IA EIS, and is outside the scope of this Environmental Evaluation. Supplemental NEPA and Endangered Species Act (ESA) compliance would be carried out as appropriate for applicable Federal approvals of the transfer of this water to MWD.

- IID would provide up to a total of 800 KAF of conserved water, referred to as the Salton Sea “Restoration Increment,” for potential transfer to the California Department of Water Resources (CDWR) and subsequent resale to MWD during the first 15 years of the Water Delivery Agreement, as noted in Exhibit B of the Agreement (column 9). This water transfer would be subject to applicable Federal approval, and could only occur after a Salton Sea restoration plan is approved by the California Secretary of the Resources Agency.

*Impact of the change:* Since the Salton Sea restoration plan has not been identified, assessed or approved, the environmental effects of the conservation, transfer and use of the Restoration Increment are speculative and cannot feasibly be assessed at this time. Therefore, an assessment of the conservation, transfer and use of the Restoration Increment is not included in this Environmental Evaluation. Supplemental NEPA and ESA compliance would be carried out as appropriate for applicable Federal approvals of the transfer of this water to CDWR/MWD.

- An economic mitigation plan to mitigate the socioeconomic impact of land following would be developed and implemented using funds provided by SDCWA and IID. A local entity would be established by IID to administer the receipt and disbursement of socioeconomic impact payments made by SDCWA and IID. This is purely a State-related action and no Federal approval or action is involved; it is included to ensure completeness in the environmental evaluation.

*Impact of the change:* This mitigation would be financial in nature and would not create any new environmental impacts.

- SDCWA could elect to pursue, at no cost to IID, water from the East Mesa Well Field for Salton Sea mitigation. If this occurs, IID would increase its annual deliveries to SDCWA to permit reductions in following.

*Impact of the change:* The feasibility and environmental effects of using groundwater in the East Mesa have yet to be determined; hence, it is speculative and not proposed as a mitigation measure for QSA impacts at this time. Therefore, an assessment of the use of the East Mesa Well Field is not included in this Environmental Evaluation. Supplemental NEPA and ESA compliance would be carried out as appropriate for applicable Federal approvals of the development and use of this water source.

- The Water Delivery Agreement will terminate December 31, 2037 if the 1998 III/SDCWA transfer program ends that year. If this Water Delivery Agreement does not terminate on December 31, 2037, then it will terminate on December 31, 2047, unless extended by agreement of all parties until December 31, 2077.

*Impact of the change:* If terminated in 2037, less water would be delivered to SDCWA, CVWD and/or MWD than under the proposed action described in the Final IA EIS; however the amount transferred would fall within the range evaluated in the Final IA EIS. No new or more severe environmental impacts would result from this change.

The potential environmental effects from the implementation of the Water Delivery Agreement are described in detail in Chapter 2, and are summarized in Table 1-2.



**Table 1-1. Comparison of Original and Revised Water Delivery Schedules**

| Agreement Yr | Calendar Yr       | IID/SDCWA Transfer (KAF) |               |               | IID/CVWD Transfer (KAF) <sup>1</sup> |              |            | IID/MWD Transfer (KAF) |          |            | Total Delivery (KAF) |         |            |
|--------------|-------------------|--------------------------|---------------|---------------|--------------------------------------|--------------|------------|------------------------|----------|------------|----------------------|---------|------------|
|              |                   | Original <sup>2</sup>    | Revised       | Difference    | Original                             | Revised      | Difference | Original               | Revised  | Difference | Original             | Revised | Difference |
| 1            | 2003 <sup>3</sup> | 20                       | 10            | -10           | 0                                    | 0            | 0          | 0                      | 0        | 0          | 20                   | 10      | -10        |
| 2            | 2004              | 40                       | 20            | -20           | 0                                    | 0            | 0          | 0                      | 0        | 0          | 40                   | 20      | -20        |
| 3            | 2005              | 60                       | 30            | -30           | 0                                    | 0            | 0          | 0                      | 0        | 0          | 60                   | 30      | -30        |
| 4            | 2006              | 82.5                     | 40            | -42.5         | 0                                    | 0            | 0          | 2.5                    | 0        | -2.5       | 85                   | 40      | -45        |
| 5            | 2007              | 105                      | 50            | -55           | 5                                    | 0            | -5         | 5                      | 0        | -5         | 115                  | 50      | -65        |
| 6            | 2008              | 122.5                    | 50            | -72.5         | 10                                   | 4            | -6         | 2.5                    | 0        | -2.5       | 135                  | 54      | -81        |
| 7            | 2009              | 140                      | 60            | -80           | 15                                   | 8            | -7         | 0                      | 0        | 0          | 155                  | 68      | -87        |
| 8            | 2010              | 160                      | 70            | -90           | 20                                   | 12           | -8         | 0                      | 0        | 0          | 180                  | 82      | -98        |
| 9            | 2011              | 180                      | 80            | -100          | 25                                   | 16           | -9         | 0                      | 0        | 0          | 205                  | 96      | -109       |
| 10           | 2012              | 200                      | 90            | -110          | 30                                   | 21           | -9         | 0                      | 0        | 0          | 230                  | 111     | -119       |
| 11           | 2013              | 200                      | 100           | -100          | 35                                   | 26           | -9         | 0                      | 0        | 0          | 235                  | 126     | -109       |
| 12           | 2014              | 200                      | 100           | -100          | 40                                   | 31           | -9         | 0                      | 0        | 0          | 240                  | 131     | -109       |
| 13           | 2015              | 200                      | 100           | -100          | 45                                   | 36           | -9         | 0                      | 0        | 0          | 245                  | 136     | -109       |
| 14           | 2016              | 200                      | 100           | -100          | 50                                   | 41           | -9         | 0                      | 0        | 0          | 250                  | 141     | -109       |
| 15           | 2017              | 200                      | 100           | -100          | 55                                   | 45           | -10        | 0                      | 0        | 0          | 255                  | 145     | -110       |
| 16           | 2018              | 200                      | 130           | -70           | 60                                   | 63           | 3          | 0                      | 0        | 0          | 260                  | 193     | -67        |
| 17           | 2019              | 200                      | 160           | -40           | 65                                   | 68           | 3          | 0                      | 0        | 0          | 265                  | 228     | -37        |
| 18           | 2020              | 200                      | 192.5         | -7.5          | 70                                   | 73           | 3          | 0                      | 0        | 0          | 270                  | 265.5   | -4.5       |
| 19           | 2021              | 200                      | 205           | 5             | 75                                   | 78           | 3          | 0                      | 0        | 0          | 275                  | 283     | 8          |
| 20           | 2022              | 200                      | 202.5         | 2.5           | 80                                   | 83           | 3          | 0                      | 0        | 0          | 280                  | 285.5   | 5.5        |
| 21           | 2023              | 200                      | 200           | 0             | 85                                   | 88           | 3          | 0                      | 0        | 0          | 285                  | 288     | 3          |
| 22           | 2024              | 200                      | 200           | 0             | 90                                   | 93           | 3          | 0                      | 0        | 0          | 290                  | 293     | 3          |
| 23           | 2025              | 200                      | 200           | 0             | 95                                   | 98           | 3          | 0                      | 0        | 0          | 295                  | 298     | 3          |
| 24-45        | 2026-47           | 200                      | 200           | 0             | 100                                  | 103          | 3          | 0                      | 0        | 0          | 300                  | 303     | 3          |
| 46-75        | 2048-77           | 200                      | 200           | 0             | 50                                   | 50           | 0          | 0                      | 0        | 0          | 250                  | 250     | 0          |
| <b>Total</b> |                   | <b>14,110</b>            | <b>12,890</b> | <b>-1,220</b> | <b>4,650</b>                         | <b>4,650</b> | <b>0</b>   | <b>10</b>              | <b>0</b> | <b>-10</b> | 18,770               | 17,450  | -1,230     |

Note: This ramp-up schedule is provided for illustrative purposes, and minor adjustments may be made to the schedule over the term of the Water Delivery Agreement. However, no substantial deviations from the ramp-up schedule that would result in environmental effects substantially different than those analyzed are anticipated.

1. Or MWD if CVWD declines to acquire.
2. Represents the maximum that could be transferred to SDCWA. The IA EIS evaluated alternatives that ranged from 130 KAFY to 200 KAFY as the maximum annual delivery.
3. Transfers under the Water Delivery Agreement may begin in calendar 2003 or 2004. If transfers were to begin in 2004, the 75-year period would end in 2078.

## Changes to Reclamation's Proposed Species Conservation Plan

Reclamation's proposed species conservation plan that was identified in the Final IA EIS has been revised based upon subsequent consultation with FWS, California Department of Fish and Game (CDFG), and the signatories of the QSA. The revised species conservation plan reflects the revised water delivery schedule in the Water Delivery Agreement and provides new conservation measures for the California brown pelican and California black rail. In addition, minor revisions were made to conservation measures identified in the Final IA EIS for the Desert pupfish, Yuma clapper rail, and Southwestern willow flycatcher. Following are the revisions that have been made to the species conservation plan since the Final IA EIS:

*California Brown Pelican.* The July 2002 proposed species conservation plan provided funding to conduct comprehensive population status surveys, inventory breeding colonies, and contribute to conservation efforts. The revised species conservation plan would replace this measure with one that is intended as a long-term measure to maintain the California brown pelican populations in southern California. The new measure would replace habitat lost at the Salton Sea due to QSA-related activities. A roosting site for the California brown pelican would be constructed in the south San Diego Bay area and one in the outer harbor of Santa Barbara to support a total of at least 1,200 pelicans. This measure would also provide for long-term monitoring for this species even after the salinity of the Salton Sea reaches levels when food sources for the species are substantially reduced. It should be noted that permits from agencies such as the Army Corps of Engineers and United States Coast Guard would be required to implement this measure. If the sites in San Diego and/or Santa Barbara are not permitted, then alternative sites on the southern California coast would be selected in coordination with FWS, CDFG, and permitting agencies.

*California Black Rail.* The species conservation plan identified in the Final IA EIS did not include measures for the California black rail since it is not a federally-listed species. A new measure was added to facilitate permitting under State requirements by CDFG. The new measure states that habitat requirements of the California black rail would be considered in the design and management of the new marsh habitat associated with conservation measures for the Yuma clapper rail. No additional acreage of managed marsh habitat would be created specifically for the California black rail.

*Desert Pupfish.* The July 2002 species conservation plan included measures that would ensure there would be connectivity between pupfish populations in individual drains connected to the Salton Sea, drain habitat maintenance, and water quality and pupfish monitoring. Revisions to the species conservation plan's Desert pupfish conservation measures were made that would add construction and maintenance of one pupfish refugium pond to assist in the recovery efforts for that species, funding of a study program to determine the impacts of selenium on pupfish, and implementation of a monitoring program to establish baseline conditions in drains in the Imperial Valley that discharge directly to the Salton Sea.

*Yuma Clapper Rail.* Revisions to the species conservation plan's Yuma clapper rail conservation measures would result in up to 73 acres of high quality managed marsh created to mitigate for potential salinity impacts and potential selenium impacts on clapper rail egg hatchability (versus 52 acres identified in the July 2002 species conservation plan).

*Southwestern Willow Flycatcher.* The July 2002 Southwestern willow flycatcher measures indicated all potential cottonwood-willow and tamarisk stands would be evaluated for breeding habitat suitability, and those found suitable would be monitored. Loss of habitat from IID's water conservation actions would be mitigated through habitat replacement and a long-term management plan. Revisions to the species conservation plan clarify that if IID's potential installation of seepage recovery systems would necessitate the removal of suitable flycatcher breeding habitat, it would be scheduled outside of the flycatcher's breeding season.

*Impact of the changes:* The changes to Reclamation's proposed species conservation plan are relatively minor and were designed to reduce impacts to some State and federally-listed species that could be affected by IID's water conservation actions. It is expected that no significant unavoidable impacts would occur with the implementation of any conservation measure associated with Reclamation's proposed species conservation plan. Detailed planning has yet to be completed for implementation of the conservation measures (e.g., final design and location of constructed marsh habitat); supplemental site-specific NEPA compliance will be carried out prior to construction, once detailed planning information is available.

### **2001 and 2002 Overrun Paybacks**

The Water Delivery Agreement requires certain of the signatory California parties to repay previously incurred overruns for 2001 and 2002. The Water Delivery Agreement states, in part:

...any existing overruns in calendar years 2001 and 2002 by parties to this Agreement must be repaid within an eight-year period beginning in calendar year 2004 in accordance with the schedule attached hereto in Exhibit C... Repayment of any overruns other than from calendar years 2001 and 2002 shall be pursuant to the Inadvertent Overrun and Payback Policy...

Overruns of 43.5 KAF and 269.7 KAF were incurred in 2001 and 2002, respectively. A copy of the repayment schedule established for these overruns, incurred by the California parties, is included in Exhibit C of the Water Delivery Agreement (see Attachment A). It is important to note that the overruns incurred in 2001 and 2002 and the subsequent paybacks are independent of the proposed IOP Policy described and analyzed in the Final IA EIS. However, the Secretary and the agencies have agreed that these overrun amounts will be paid back, albeit under different provisions to those specified in the IOP Policy.

Although payback of overruns pursuant to annual operations does not require environmental compliance, this Environmental Evaluation includes an analysis of the 2001 and 2002 overrun paybacks, as described in the Water Delivery Agreement, to ensure completeness in the environmental evaluation. This is a voluntary undertaking by Reclamation.

*Impact of the Overrun Payback:* Analysis of the hydrologic effects of the 2001 and 2002 overrun payback schedule concluded that the combined effects of the overrun payback and water transfers proposed by the Water Delivery Agreement fall within the range previously analyzed for the IOP Policy in the Final IA EIS. Potential environmental impacts related to the 2001 and 2002 overrun payback schedule, therefore, would be similar to those described for the adoption of the IOP Policy in the Final IA EIS.

**Table 1-2. Summary of Environmental Impacts from the Final Colorado River Water Delivery Agreement Compared to the Final IA EIS**

| <i>Resource Area</i>                         | <i>Potential Environmental Impacts</i>   |
|--|--|
| Hydrology,<br>Water Quality,<br>Water Supply | The decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule. Water quality impacts in the IID drains and Alamo River would be postponed a few years. Water quality impacts from CVWD's groundwater recharge activities would be delayed a few years. Impacts to Salton Sea salinity and water surface elevation would be postponed a few years.  |
| Biological<br>Resources                      | Impacts to sensitive fish and wildlife species associated with aquatic, marsh, or riparian habitats along the Colorado River between Parker and Imperial dams could be temporarily lessened, but would ultimately be essentially as described in the Final IA EIS. The revised delivery schedule would delay some of the water quality impacts to IID's drains, which would also delay associated impacts to plants and wildlife. Impacts to fish and fish-eating birds from increased salinity of the Salton Sea would be the same as those described in the Final IA EIS, but would be postponed a few years. Impacts on wetland and riparian vegetation related to lower water surface elevations of the Salton Sea would be similar to those described in the Final IA EIS, but of slightly less severity. |
| Hydroelectric<br>Power                       | There would be no change in the potential for hydropower generation at Hoover, Davis, and Parker dams. Headgate Rock Dam, because it is a run-of-river facility, could generate more power through approximately year 2020 when compared to the maximum impact scenario described in the Final IA EIS for hydropower generation. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there could be a slight reduction in the impact on hydroelectric power generation described in the Final IA EIS.   |
| Land Use                                     | Potential impacts to recreational use of the Salton Sea and to lands of the Torres Martinez Band of Desert Cahuilla Indians (some of which are currently inundated by the Sea) would be delayed a few years.   |
| Recreational<br>Resources                    | Impacts on recreational resources due to the decrease in water surface area of the Salton Sea would be similar to those described in the Final IA EIS, but of slightly less severity and the timing of these impacts would be delayed a few years. Impacts to sport fishing, hunting, and bird and wildlife viewing from increased salinity would be the same as those described in the Final IA EIS, but would be postponed a few years.  |
| Agricultural<br>Resources                    | Potential agricultural impacts from IID's water conservation actions in the IID service area would be similar to those described in the Final IA EIS. Under the revised water delivery schedule, the amount of Colorado River water transferred to SDCWA would be less than the potential maximum amount identified in the original agreement; however, the total amount delivered over the term of the Water Delivery Agreement that would be available for agricultural use would fall within the range described in the Final IA EIS.   |

**Table 1-2. Summary of Environmental Impacts from the Final Colorado River Water Delivery Agreement Compared to the Final IA EIS**  
(continued)

| <i>Resource Area</i>  | <i>Potential Environmental Impacts</i>  |
|-----------------------|---|
| Socioeconomics        | Potential impacts from reduced energy produced at Headgate Rock Dam could be temporarily lessened, but would ultimately be essentially as described in the Final IA EIS. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there could be a slight reduction in the impact on hydroelectric power generation at Headgate Rock Dam. Potential employment impacts from IID's water conservation actions in the IID service area would be similar to those described in the Final IA EIS. Potential impacts to employment and population near the Salton Sea would be delayed a few years, but would ultimately be the same as those described in the Final IA EIS.   |
| Environmental Justice | Potential impacts to the Colorado River Indian Tribes (CRIT) and other Indian Tribes from reduced energy produced at Headgate Rock Dam could be temporarily lessened, but would ultimately be essentially as described in the Final IA EIS. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there could be a slight reduction in the impact on hydroelectric power generation at Headgate Rock Dam and associated impacts to the CRIT and other Indian Tribes. Potential environmental justice impacts to minority and low-income populations from the loss of low-wage agricultural jobs in the IID service area would be similar to those described in the Final IA EIS. Potential impacts on a minority population near the Salton Sea as a result of high and adverse air quality impacts would be delayed a few years, but ultimately would be the same as those described in the Final IA EIS. |
| Cultural Resources    | The decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for approximately the first 18 years of the water delivery schedule. This would result in no new impacts to cultural resources.   |
| Tribal Resources      | The decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for approximately the first 18 years of the water delivery schedule, which could temporarily lessen any potential impacts to tribal resources. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there could be a slight reduction in the impact to tribal resources described in the Final IA EIS. Impacts to drinking water quality of the Torres Martinez Band of Desert Cahuilla Indians and Agua Caliente Band of Cahuilla Indians could be delayed a few years, but impacts ultimately would be as described in the Final IA EIS. Impacts to the Torres Martinez Band of Desert Cahuilla Indians from changes to the Salton Sea could be postponed a few years, but ultimately would be the same as those described in the Final IA EIS.         |

**Table 1-2. Summary of Environmental Impacts from the Final Colorado River Water Delivery Agreement Compared to the Final IA EIS**  
(continued)

| <i>Resource Area</i>  | <i>Potential Environmental Impacts</i>   |
|-----------------------|--|
| Air Quality           | The decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for approximately the first 18 years of the water delivery schedule, which could temporarily lessen any potential impacts to air quality. Potential air quality impacts from IID’s water conservation actions in the IID service area would be similar to those described in the Final IA EIS. Air quality impacts from odorous emissions at the Salton Sea would be the same as those described in the Final IA EIS, but would likely be postponed a few years. Fugitive dust emissions related to the Salton Sea would be the similar to those described in the Final IA EIS, but would be delayed by a few years, and could be of slightly less severity. |
| Transboundary Impacts | Changes to excess flows to Mexico, and associated impacts on biological resources, would be of the same magnitude as described in the Final IA EIS.  |

## 2.0 ENVIRONMENTAL IMPACTS

### 2.1 IMPACTS FROM THE COLORADO RIVER WATER DELIVERY AGREEMENT

#### **Hydrology/Water Quality/Water Supply**

The overall impacts to hydrology and water quality would be similar to those described in the Final IA EIS, although the changes related to the revised water delivery schedule in the Water Delivery Agreement would result in slightly reduced impacts to hydrology and water quality of the Colorado River and Salton Sea, lesser beneficial effects to reservoirs, and a delay in changes to water quality and groundwater in the IID and CVWD service areas. As discussed below, the Water Delivery Agreement does not represent a significant new circumstance and would not result in substantial new hydrology, water quality, or water supply impacts meriting preparation of a Supplemental EIS, pursuant to 40 CFR 15029(c)(1). Potential changes in impacts to hydrologic resources, resulting from implementation of the Water Delivery Agreement (versus impacts described in the Final IA EIS) are described below and are detailed in Table 2-1.

#### *Lakes Mead and Powell*

Per the revised water delivery schedule, less water would be conserved and transferred from IID to SDCWA. Not until year 2021 would transfers under the revised water delivery schedule reach the same annual volumes as was analyzed in the Final IA EIS. Similarly, water conserved and transferred from IID to CVWD and/or MWD would also be in smaller annual volumes until year 2018. Due to the smaller transfer volumes in years 2003 through 2020, California's demand for, and delivery of, surplus water would be somewhat greater under the revised water delivery schedule than under the maximum impact scenario described in the Final IA EIS. The additional delivery of surplus water would result in somewhat less water being retained in Lake Mead and, through equalization, less water in Lake Powell, as compared to the maximum impact scenario.

To quantify these potential changes to storage in Lake Mead, the amount of surplus water that would remain in storage was compared for the Water Delivery Agreement, the Final IA EIS, and the No-Action condition (see Attachment B). The comparison assumed all years are Full Domestic surplus years to capture the maximum impact to Lake Mead storage levels. It was assumed in the Final IA EIS that the ISG benchmarks would be met by California, either by reductions in agricultural or urban uses or both. This was particularly evident under the No-Action conditions, where it was assumed that MWD would meet the ISG benchmarks by reductions in their use. For this comparison, an identical modeling assumption was made. Given that modeling assumption, the amount of surplus water remaining in storage depends on the volume of water transferred to urban water users plus any reductions in water use that those urban users must make to meet the ISG benchmarks. Given the Water Delivery Agreement transfers considered in Attachment B (e.g., the two 800 KAF transfers for Salton Sea restoration were not included), the ISG benchmarks would not be met without additional reductions in use. These additional reductions in use could be achieved by reductions in urban use, through other agricultural transfers such as were considered in the cumulative analysis in

**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**

| <i>Resource Area</i>  | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i>  | <i>Cause of Difference</i>   | <i>Meaning for the Environmental Analysis</i>  |
|-----------------------|---|--|--|
| <b>Lake Powell</b>    | Slightly less water in Lake Powell over the ISG period. <sup>a</sup>  | California’s demand for, and delivery of, surplus water would be somewhat greater under the revised water delivery schedule than under the maximum impact scenario described in the Final IA EIS. The additional delivery of surplus water would result in somewhat less water being retained in Lake Mead and, through equalization, less water in Lake Powell. | The revised water delivery schedule would result in a slightly less beneficial augmentation of elevation in Lake Powell than would the maximum impact scenario described in the Final IA EIS.            |
| <b>Lake Mead</b>      | Slightly less water in Lake Mead over the ISG period. <sup>a</sup>  | California’s demand for, and delivery of, surplus water would be somewhat greater under the revised water delivery schedule than under the maximum impact scenario described in the Final IA EIS. The additional delivery of surplus water would result in somewhat less water being retained in Lake Mead.  | The revised water delivery schedule would result in a slightly less beneficial augmentation of elevation in Lake Mead than under the maximum impact scenario described in the Final IA EIS.              |
| <b>Colorado River</b> |   |  |  |
| HOOVER TO PARKER      |   |  |  |
| <i>Normal Year</i>    | No difference.  | -  | -  |
| <i>Surplus Year</i>   | Slightly more water released under the revised water delivery schedule over the ISG period. <sup>a</sup>  | California’s demand for, and delivery of surplus water would be somewhat greater under the revised water delivery schedule than under the maximum impact scenario described in the Final IA EIS. Therefore, surplus releases from Hoover Dam to this river reach would be somewhat greater under the revised water delivery schedule.                            | There would be additional, albeit minor augmentation of flow in this reach of the river under the revised water delivery schedule relative to the maximum impact scenario described in the Final IA EIS. |
| <i>Shortage Year</i>  | No difference.  | -  | -  |
| <sup>a</sup>          | The ISG period, Years 2002 to 2016, is the period during which ISG will be in effect. The ISG provides a predictable means of estimating the existence, or lack thereof, of a surplus determination in a given year. The ISG facilitates California’s transition to a reduced supply of Colorado River water. |  |  |



**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**  
(continued)

| <i>Resource Area</i>             | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i> | <i>Cause of Difference</i>  | <i>Meaning for the Environmental Analysis</i>   |
|----------------------------------|--|---|---|
| PARKER TO IMPERIAL               |  |   |   |
| <i>Normal Year</i>               | Slightly more water in this reach until approximately year 2020.               | Per the revised water delivery schedule, transfer water that would have been diverted upstream at Parker Dam would instead be diverted at Imperial Dam until approximately year 2020.         | The potential negative effects to this river reach from reduced flow would be less than those described in the Final IA EIS.                                |
| <i>Surplus Year</i>              | Slightly more water in this reach until approximately year 2020.               | Per the revised water delivery schedule, transfer water that would have been diverted upstream at Parker Dam would instead be diverted at Imperial Dam until approximately year 2020.         | The potential negative effects to this river reach from reduced flow would be less than those described in the Final IA EIS.                                |
| <i>Shortage Year</i>             | Slightly more water in this reach until approximately year 2020.               | Per the revised water delivery schedule, transfer water that would have been diverted upstream at Parker Dam would instead be diverted at Imperial Dam until approximately year 2020.         | The potential negative effects to this river reach from reduced flow would be less than those described in the Final IA EIS.                                |
| COLORADO RIVER WATER QUALITY     |  |   |   |
| <i>Salinity Below Hoover Dam</i> | Possible slight temporary increase in salinity.                                | In this portion of the river system, salinity is primarily affected by the amount of water in storage. With the revised water delivery schedule, somewhat less water would remain in storage. | The slight change in reservoir storage that would occur due to the revised delivery schedule would have no discernible effect on salinity below Hoover Dam. |

**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**  
(continued)

| <i>Resource Area</i>                                | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i> | <i>Cause of Difference</i>  | <i>Meaning for the Environmental Analysis</i>  |
|---|--|---|--|
| <i>Salinity at Imperial Dam</i>                     | Possible slight temporary decrease in salinity.                                | In this portion of the river system, salinity is primarily affected by river flow. With the revised water delivery schedule, through approximately year 2020 there would be some additional flow reaching Imperial Dam. From approximately year 2021 through 2047 there would be minor decreased flow (~ 3 KAFY) in the Parker to Imperial reach. | Changes to salinity relative to the No-Action would be of the same magnitude as described in the Final IA EIS. The increase in flow in the Parker to Imperial reach through approximately year 2020 would have a positive but temporary effect on salinity at Imperial Dam. The small decrease in flow from year approximately 2021 to 2047 is not anticipated to have a discernible effect on salinity. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam; this increase in flow volume could result in a minor reduction in salinity impacts. |
| <b>Water Supply and Quality</b><br>IID Service Area | Until year 2020, more water remains in the IID service area.                   | Until year 2020, water that would have been conserved and transferred out of the service area would be used within the service area or would be provided, through exchange of non-Colorado River water, to the Salton Sea, as mitigation water.   | The Final IA EIS identified unavoidable impacts to the IID drains and Alamo River from the implementation of IID’s water conservation actions. These impacts would be delayed with the revised water delivery schedule because until year 2020, (a) more water stays in the IID system, and (b) there is greater proportion of tailwater to tilewater in drainage.   |

**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**  
(continued)

| <i>Resource Area</i> | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i>  | <i>Cause of Difference</i>  | <i>Meaning for the Environmental Analysis</i>   |
|----------------------|---|---|---|
| CVWD Service Area    | In the short-term, CVWD could receive less water. Over the entire term of the Water Delivery Agreement, CVWD would be eligible to receive the same amount of water under the revised water delivery schedule. | Per the revised water delivery schedule, initiation of transfers per the CVWD/IID/MWD Conservation and Transfer Agreement would be delayed one year (until year 2008) and transfer volumes would be smaller until year 2017. Due to the delay and temporary decrease in transfer volumes, the cumulative amount of water which could go to CVWD or MWD from the CVWD/IID/MWD Conservation and Transfer Agreement through year 2017 would be up to 90 KAF less than described in the Final IA EIS. After year 2017, transfer volumes of the CVWD/IID/MWD Conservation and Transfer Agreement would be greater under the revised water delivery schedule. Thus, in the years after 2017, CVWD or MWD would be eligible to receive more water under the revised water delivery schedule. | With the revised water delivery schedule, the beneficial effects to CVWD groundwater recharge activities would occur more slowly until year 2017. Until year 2017, CVWD would have less water available for groundwater recharge and less water in the CVWD drains available for salt flushing in the Lower Valley. However, groundwater recharge and salt flushing in this period would still occur at a rate greater than under No-Action conditions. |

**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**  
(continued)

| <i>Resource Area</i> | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i>   | <i>Cause of Difference</i>  | <i>Meaning for the Environmental Analysis</i>   |
|----------------------|--|---|---|
| MWD Service Area     | <p>Early water transfers to MWD would be deleted under the revised water delivery schedule.</p> <p>Conserved water from the All American and Coachella Canal lining projects would be transferred to SDCWA, not MWD.</p> <p>MWD would be further affected only if CVWD rejected the transferred water from IID, and MWD elected to take the water. In that case, in the short-term, MWD could receive less water. Over the entire term of the Water Delivery Agreement, MWD would be eligible to receive the same amount of water under the revised water delivery schedule.</p> | <p>Per the revised water delivery schedule, initiation of transfers per the CVWD/IID/MWD Conservation and Transfer Agreement would be delayed one year (until year 2008) and transfer volumes would be smaller until year 2017. Due to the delay and temporary decrease in transfer volumes, the cumulative amount of water which could go to CVWD or MWD from the CVWD/IID/ MWD Conservation and Transfer Agreement through year 2017 would be up to 90 KAF less than described in the Final IA EIS. After year 2017, transfer volumes of the CVWD/IID/MWD Conservation and Transfer Agreement would be greater under the revised water delivery schedule.</p> | <p>The deletion of the early water transfers (10 KAF total over 3 years) would have negligible effects on either the Colorado River or the MWD service area.</p> <p>The transfer of the conserved canal lining water to SDCWA is not considered a substantial change, since the water would continue to be used within MWD’s service area, and would replace (for SDCWA) water that would otherwise be supplied by MWD.</p> <p>The Final IA EIS appropriately captures the range of possible effects.</p> |

**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**  
(continued)

| <i>Resource Area</i> | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i>  | <i>Cause of Difference</i>   | <i>Meaning for the Environmental Analysis</i>                          |
|----------------------|---|--|--|
| SDCWA Service Area   | In both the short- and long-terms, SDCWA would receive less water than the potential maximum amount identified in the original agreement. | Over the term of the revised water delivery schedule, SDCWA could receive up to 1.22 MAF less transferred water from IID than under the maximum impact scenario described in the Final IA EIS. However, the maximum impact scenario assumed the maximum transfer to SDCWA (200 KAFY), while the original QSA terms actually identified a range of 130 to 200 KAFY for IID transfer to SDCWA. So while the revised water delivery schedule would deliver less Colorado River water to SDCWA than the maximum transfer scenario analyzed in the Final IA EIS, the revised water delivery schedule would deliver more water (4.71 MAF) than under the lower 130 KAFY transfer scenario described in the original QSA terms. | The Final IA EIS appropriately captures the range of possible effects. |
| Arizona              | No difference.  | -  | -  |
| Nevada               | No difference.  | -  | -  |

**Table 2-1. Differences Between Hydrologic Impacts as Described/Modeled in the Final IA EIS and Impacts Associated with the Colorado River Water Delivery Agreement**  
(continued)

| <i>Resource Area</i>  | <i>Results of Revised Water Delivery Schedule Relative to the Final IA EIS</i>  | <i>Cause of Difference</i>  | <i>Meaning for the Environmental Analysis</i>   |
|---|---|---|---|
| <p><b>Salton Sea</b></p> <p>Salinity</p> <p>Water Surface Elevation</p> | <p>Decreased salinity impacts over both short- and long- terms. Under the revised water delivery schedule, the Salton Sea would not reach salinity levels of 60,000 mg/L (the point at which fish are not expected to survive) until 2019, as opposed to 2012 under the maximum impact scenario described in the Final IA EIS. Under revised water delivery schedule, mean salinity in year 2077 is anticipated to be about 142,000 mg/L, as opposed to 162,290 mg/L under the maximum impact scenario.</p> <p>Decreased water surface elevation impacts over both short- and long-terms. Under the revised water delivery schedule, the critical elevation for recreation (-230 feet msl) would not be surpassed until 2010, as opposed to 2007 under the maximum impact scenario described in the Final IA EIS. Under revised water delivery schedule, mean elevation in 2077 is expected to be -247 feet msl, as opposed to as low as -250 feet msl under the maximum impact scenario.</p> | <p>More water with decreased salt load would be delivered to the Salton Sea.</p> <p>In the short-term, more water would be delivered to Salton Sea.</p> | <p>Impacts to Salton Sea salinity would be similar to those described in the Final IA EIS, but would be postponed a few years with the implementation of the revised water delivery schedule.</p> <p>Impacts to the water surface elevation of the Salton Sea would be similar to those described in the Final IA EIS, but would be postponed a few years with the implementation of the revised water delivery schedule.</p> |

the Final IA EIS, or by utilizing the 145 KAF ISG benchmark transfer water from IID. Assuming the additional reductions would occur, the amount of surplus water remaining in storage would be no less than the amount observed under the No-Action conditions. Therefore, the potential impacts to Lake Mead (and therefore to Lake Powell) that may result from the reduced rate of transfers considered in the Water Delivery Agreement fall within the range of impacts as described in the Final IA EIS.

### *Colorado River*

With regard to Colorado River impacts, the revised water delivery schedule would differ from the maximum impact scenario described in the Final IA EIS in the following ways:

- Slight increased demand for surplus water during the ISG period; and
- Additional flows in the Parker Dam to Imperial Dam reach of the river through year 2020, due to reduced rate of transfers.

As described earlier, per the revised water delivery schedule, less water would be conserved and transferred from IID to SDCWA, CVWD, and/or MWD as compared to the maximum transfer scenario. Not until year 2021 would transfers under the revised water delivery schedule reach the same annual volumes as was analyzed under the maximum impact scenario in the Final IA EIS. California's demand for surplus water would be somewhat greater due to these lower transfer volumes. The additional delivery of surplus water would result in somewhat larger flows in the river reach below Hoover Dam.

Another effect of IID's reduced transfers to other water agencies is that more Colorado River water would be delivered to the IID service area, resulting in increased flows from Parker Dam to IID's diversion at Imperial Dam. In essence, water that would have been diverted upstream at Parker Dam under the original water delivery schedule (Final IA EIS maximum transfer/impact scenario) would instead be diverted at Imperial Dam until year 2020 under the revised water delivery schedule. These increased flows in the Hoover Dam to Parker Dam river reach and in the Parker Dam to Imperial Dam reach temporarily reduce the hydrological impacts anticipated under the maximum impact scenario described in the Final IA EIS.

Up to an additional 100 KAFY of water could be exchanged between CVWD and MWD for exchange of CVWD's State Water Project water, as requested by MWD. In years when MWD implements this exchange, additional flow in the Colorado River between Parker and Imperial Dams would result. Since this transfer would occur only at the request of MWD, and therefore is not guaranteed to occur each year, this transfer was not included in the revised water delivery schedule analyzed in Appendix B. However, this transaction, if implemented, would have a minor beneficial impact on the Colorado River by slightly increasing the flow below Parker Dam.

### *Colorado River Water Quality*

The changes in reservoir storage and river flow that could occur under the revised water delivery schedule could affect Colorado River salinity. In the reaches of the river below Hoover Dam, salinity is primarily affected by the amount of water in storage. With the revised water

delivery schedule, somewhat less water would remain in storage as compared to the maximum impact scenario in the Final IA EIS. However, these minor changes in storage are not anticipated to be large enough to discernibly affect river salinity below Hoover Dam.

Downstream of Parker Dam, salinity is primarily a function of flow volume. With the revised water delivery schedule, there would be additional flow reaching Imperial Dam through year 2020. From year 2021 through 2047 there would be minor decreases in flow (~ 3 KAFY) in the Parker Dam to Imperial Dam reach. The increase in flow in the Parker Dam to Imperial Dam reach through year 2020 would have a positive but temporary effect on salinity at Imperial Dam. The small decrease in flow from year 2021 to 2047 is not anticipated to have a discernible effect on salinity. Overall, changes to salinity due to the revised water delivery schedule, relative to the No-Action conditions, would be of the same magnitude as described in the Final IA EIS. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam than envisioned under the maximum impact scenario in the Final IA EIS. This increase in flow volume could result in a minor reduction in salinity impacts.

### *Water Supply and Water Quality in Service Areas*

As described earlier, per the revised water delivery schedule, less water would be conserved and transferred from IID to SDCWA<sup>3</sup>. The Final IA EIS analyzed the maximum transfer of 200 KAFY to SDCWA, which would be reached in year 2012. Under the revised water delivery schedule, it is not until year 2021 that transfers would reach the same annual volumes as was analyzed in the Final IA EIS. Overall, during the term of the Water Delivery Agreement, SDCWA could receive up to 1.22 MAF<sup>4</sup> less transfer water than what was described under the maximum transfer scenario in the Final IA EIS (see Table 1-1). However, the total amount delivered over the term of the Water Delivery Agreement would fall within the range described in the Final IA EIS<sup>5</sup>.

Water conserved and transferred from IID to CVWD or MWD would also be in smaller annual volumes until year 2018, but after year 2018 transfer volumes would be slightly greater and, over the term of the Water Delivery Agreement, CVWD and/or MWD would receive the same volume of water under the revised water delivery schedule as was analyzed in the Final IA EIS. Early water transfers to MWD would be deleted under the revised water delivery schedule, but this minor amount of water (~ 10 KAF over 3 years) would have negligible effects on both the Colorado River and the MWD service area. The transfer of the water conserved by the All American and Coachella Canal lining projects to SDCWA instead of to MWD would reduce MWD's supplies by 77.7 KAFY. However, this water would replace water that MWD would have otherwise delivered to SDCWA, so that the overall amount of Colorado River water used within the MWD service area would remain the same.

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3 This is true even if 145 KAF of additional water is transferred per section 4.g. of the Water Delivery Agreement (ISG benchmark water).

4 This amount would be reduced slightly if SDCWA received any of the 145 KAF benchmark water from IID.

5 The original QSA terms identified a range of 130 to 200 KAFY that IID would transfer to SDCWA; the Final IA EIS analyzed this same range of deliveries. While the revised water delivery schedule would result in less Colorado River water being delivered to SDCWA by the end of the 75-year quantification period than was analyzed in the Final IA EIS (using the maximum transfer scenario), the revised water delivery schedule would result in the delivery of more water than would occur assuming a minimum transfer of 130 KAFY.



The slower ramp-up of deliveries related to the conservation and transfer actions under the revised water delivery schedule is expected to have a beneficial impact to IID drain water quality. The Final IA EIS identified unavoidable impacts to the IID drains and Alamo River from the implementation of IID's water conservation actions. These impacts would be delayed with the revised water delivery schedule because, until year 2020, (a) more water would stay in the IID system (even with the potential transfer of up to 145 KAF of ISG benchmark water) and (b) there would be a greater proportion of tailwater to tilewater in the drainage.

The slower ramp-up rate of the transfers would slow CVWD groundwater recharge activities and the associated beneficial effects. Until year 2017, CVWD would have less water available for groundwater recharge and less water in the CVWD drains available for salt flushing in the Lower Valley. However, groundwater recharge and salt flushing in this period would still occur at a rate greater than under No-Action conditions. Over the entire term of the Water Delivery Agreement, CVWD would be eligible to receive the same amount of water analyzed under the maximum impact scenario in the Final IA EIS.

### ***Salton Sea***

Impacts to Salton Sea salinity and elevation would be similar to those described in the Final IA EIS, but would likely be postponed a few years with the implementation of the revised water delivery schedule. Under the revised water delivery schedule, the Salton Sea would not reach salinity levels of 60,000 mg/L (the point at which fish are not expected to survive) until 2019, as opposed to 2012 under the maximum impact scenario described in the Final IA EIS. Likewise, the critical water surface elevation for recreation (-230 feet below mean sea level [msl]) would not be surpassed until 2010, as opposed to 2007 under the maximum impact scenario described in the Final IA EIS. Under the revised water delivery schedule, mean water surface elevation in 2077 is expected to be -247 feet below msl, as opposed to as low as -250 feet below msl under the maximum impact scenario. These key salinity levels and water surface elevations would be reached in the same years with or without the transfer of 145 KAF of ISG benchmark water (see Attachment C for more details).

### **Biological Resources**

With implementation of the revised water delivery schedule, the decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule, which could temporarily lessen the impacts to sensitive fish and wildlife species associated with aquatic, marsh, or riparian habitats. Ultimately, impacts would be essentially as described in the Final IA EIS. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam than envisioned under the maximum impact scenario in the Final IA EIS. However, this additional flow is not guaranteed to occur every year, and it is anticipated there would not be a discernible change in impacts to biological resources from this exchange.

IID's water conservation actions could result in a reduction of drain water flow and water quality changes in drain water. This could impact emergent marsh and riparian vegetation along the drains, which would adversely impact bird and amphibian species using this habitat, as described in the Final IA EIS. Reduction in drain water flow and increased salinity of the

Salton Sea could also impact Desert pupfish (see below for discussion of Salton Sea salinity). With the implementation of the revised water delivery schedule, more water would remain in the IID service area until year 2020, and there would be a greater proportion of tailwater to tilewater in the drains. This would temporarily reduce some of the water quality impacts to the drains, which would also temporarily reduce associated impacts to plants and wildlife. Potential impacts from construction of facilities within the IID service area would be the same as those described in the Final IA EIS.

The revised water delivery schedule would result in no new construction or operational changes that could impact biological resources in the CVWD, MWD or SDCWA service areas. Impacts would remain as described in the Final IA EIS.

The Final IA EIS indicates the proposed water transfers would result in an acceleration of the increase in Salton Sea salinity that is currently taking place. As described in the Final IA EIS, under No-Action conditions, the Sea would reach salinity levels of 60,000 mg/L (the point at which fish are not expected to survive) in 2023; under the maximum impact scenario, the Sea would reach this level in 2012. Under the revised water delivery schedule, the Sea would reach salinity levels of 60,000 mg/L in 2019, which falls within the range described in the Final IA EIS. Thus, with the revised water delivery schedule, impacts to fish and fish-eating birds from increased salinity would be postponed a few years, but would ultimately be the same as those described in the Final IA EIS.

Decreased water surface elevation of the Salton Sea could impact wetland and riparian vegetation, as described in the Final IA EIS. Water surface elevation of the Salton Sea in 2077 is expected to reach -247 feet below msl under the revised water delivery schedule, as opposed to -250 feet below msl under the maximum impact scenario described in the Final IA EIS. Impacts from the revised water delivery schedule on wetland and riparian vegetation related to lower water surface elevations of the Sea would be similar to those described in the Final IA EIS, but of slightly less severity.

No new or revised mitigation measures are proposed for biological resources (other than revisions to Reclamation's proposed species conservation plan, discussed in section 1.4), and no new residual impacts would occur from implementation of the revised water delivery schedule.

### **Hydroelectric Power**

The major hydroelectric power facilities on the Colorado River are Hoover Dam, Davis Dam, Parker Dam, and Headgate Rock Dam. Hoover, Davis, and Parker dams generate power when water is released from storage, while Headgate Rock Dam is a run-of-river facility. There is anticipated to be no discernible difference in storage in reservoirs resulting from the revised water delivery schedule, and hence no change in the potential for hydropower generation at Hoover, Davis, and Parker dams is expected to occur. With the revised water delivery schedule, through year 2020, more water would remain in the Parker Dam to Imperial Dam reach of the river, which is the reach in which Headgate Rock Dam is located. Headgate Rock Dam, because it is a run-of-river facility, would have the opportunity to generate slightly more power through year 2020 with the revised water delivery schedule when compared to the maximum impact scenario described in the Final IA EIS. Impacts to power generation would be essentially as described in the Final IA EIS for the remainder of the quantification period. In

years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there could be a further slight reduction in the impact on hydroelectric power generation described in the Final IA EIS. No new mitigation measures are proposed for hydroelectric power, and no new residual impacts would occur from implementation of the revised water delivery schedule.

### **Land Use**

The revised water delivery schedule would result in no new construction or changes to land use patterns along the Colorado River, in the MWD service area, or in the SDCWA service area. Potential land use impacts from IID's water conservation actions in the IID service area, CVWD's construction of QSA-related facilities (e.g., pipelines, pumping stations, recharge basins), and CVWD's groundwater recharge activities would be the same as those described in the Final IA EIS. Potential impacts to recreational use of the Salton Sea and to lands of the Torres Martinez Band of Desert Cahuilla Indian (some of which are currently inundated by the Sea) would be postponed slightly due to the revised water delivery schedule compared to the maximum impact scenario described in the Final IA EIS (see *Recreational* and *Tribal Resources* below). No new mitigation measures are proposed for land use, and no new residual impacts would occur.

### **Recreational Resources**

The revised water delivery schedule would result in no new construction or changes to recreational use along the Colorado River, in the MWD service area, or in the SDCWA service area. Potential recreation impacts from IID's water conservation actions in the IID service area, CVWD's construction of QSA-related facilities, and CVWD's groundwater recharge activities would be the same as those described in the Final IA EIS.

Decreased water surface area of the Salton Sea would reduce the area that could be used for water-based recreational activities such as fishing and boating. Water surface elevation of the Salton Sea in 2077 is expected to reach -247 feet below msl under the revised water delivery schedule as opposed to -250 feet below msl under the maximum impact scenario described in the Final IA EIS. Impacts on recreational resources due to the associated decrease in water surface area of the Sea would be similar to those described in the Final IA EIS, but of slightly less severity.

Decreased water surface elevation of the Salton Sea would affect existing recreational facilities once the elevation of the Sea drops to -230 feet below msl, as described in the Final IA EIS. Some of the existing recreational facilities would have to be relocated (i.e., campgrounds, docks) or re-established (i.e., roads and trails leading to the water), and decreasing water levels would expose footings and other remnants of campgrounds that are currently underwater that would have to be removed for safety and aesthetic considerations. With the implementation of the revised water delivery schedule, the critical elevation of -230 feet below msl would not occur until 2010 (the same year it would occur under No-Action conditions), as opposed to 2007 under the maximum impact scenario described in the Final IA EIS. Implementation of the revised water delivery schedule, therefore, would not accelerate the initial onset of impacts to recreational facilities as compared to No-Action conditions. After 2010, water surface elevation would decrease faster under the revised water delivery schedule than under No-Action

conditions. Impacts to recreational facilities related to lower water surface elevations of the Sea would be similar to those described in the Final IA EIS, but the timing of these impacts would be delayed under the revised water delivery schedule and impacts could be of slightly less severity.

The Final IA EIS indicates the proposed water transfers would result in an acceleration of the increase in Salton Sea salinity. As described in the Final IA EIS, under No-Action conditions, the Sea would reach salinity levels of 60,000 mg/L (the point at which fish are not expected to survive) in 2023; under the maximum impact scenario, the Sea would reach this level in 2012. Under the revised water delivery schedule, the Sea would reach salinity levels of 60,000 mg/L in 2019, which falls within the range described in the Final IA EIS. Under the revised water delivery schedule, impacts to fish and fish-eating birds from increased salinity (and associated impacts to recreational activities) would be postponed a few years, but would ultimately be the same as those described in the Final IA EIS. These impacts would remain potentially unavoidable.

No new mitigation measures are proposed for recreational resources, and no new residual impacts would occur.

### **Agricultural Resources**

The revised water delivery schedule would result in no new construction or changes to agricultural use along the Colorado River, in the MWD service area, or at the Salton Sea. Potential agricultural impacts from IID's water conservation actions in the IID service area related to the revised water delivery schedule would be the same as those described in the Final IA EIS, even though some of the conserved water during the first 15 years of the revised water delivery schedule, through an exchange of non-Colorado River water, would be used for mitigation water to the Salton Sea instead of being transferred to another water district. However, additional water conservation actions by IID could be implemented, if needed, to meet the ISG benchmarks. This could entail additional non-rotational fallowing in the IID service area, but the maximum amount of fallowing needed to conserve up to 145 KAF of ISG benchmark water would be less than the amount of fallowing envisioned under the SSHCS analyzed in the Final IA EIS. Therefore, the potential impacts on agricultural resources from fallowing would fall within the range described in the Final IA EIS.

Impacts from CVWD's construction of QSA-related facilities and groundwater recharge activities would be the same as those described in the Final IA EIS. Under the revised water delivery schedule, the amount of Colorado River water transferred to SDCWA would be less than the potential maximum amount identified in the original agreement; however, the total amount delivered over the term of the Water Delivery Agreement that would be available for agricultural use would fall within the range described in the Final IA EIS. No new mitigation measures are proposed for agricultural resources, and no new residual impacts would occur.

### **Socioeconomics**

With implementation of the revised water delivery schedule, the decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule, which could

temporarily lessen potential impacts from reduced energy produced at Headgate Rock Dam. Ultimately, impacts would be essentially as described in the Final IA EIS. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam than envisioned under the maximum impact scenario in the Final IA EIS, which could result in slightly less reductions in power generation at Headgate Rock Dam.

Potential socioeconomic impacts in the IID service area from IID's water conservation actions related to the revised water delivery schedule, including fallowing, would be similar to those described in the Final IA EIS, even though some of the conserved water during the first 15 years of the revised water delivery schedule, through an exchange of non-Colorado River water, would be used for mitigation water to the Salton Sea instead of being transferred to another water district. However, additional water conservation actions by IID could be implemented, if needed, to meet the ISG benchmarks. This could entail additional fallowing in the IID service area, but the maximum amount of fallowing needed to conserve up to 145 KAF of ISG benchmark water would be less than the amount of fallowing envisioned under the SSHCS analyzed in the Final IA EIS. Therefore, the potential socioeconomic impacts from fallowing would fall within the range described in the Final IA EIS.

Potential socioeconomic impacts from CVWD's construction of QSA-related facilities and groundwater recharge activities would be the same as those described in the Final IA EIS. The revised water delivery schedule would result in no new construction or changes to population, housing, or employment in the MWD or SDCWA service areas. As discussed in the Final IA EIS, potential impacts to employment and population near the Salton Sea could occur as a result of declining Salton Sea fisheries and other recreational resource impacts discussed above. With the implementation of the revised water delivery schedule, these potential employment and population impacts would be postponed slightly, but ultimately would be the same as those described in the Final IA EIS.

Potential residual impacts to employment in the IID service area would be somewhat reduced by the Water Delivery Agreement, which states that a local entity would be established by IID to administer the receipt and disbursement of socioeconomic impact payments made by SDCWA and IID. As noted in section 1.4 above, this is a State-related action.

### **Environmental Justice**

With implementation of the revised water delivery schedule, decreases in Colorado River water flows between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule, which could result in less reductions in energy produced at Headgate Rock Dam than was anticipated to occur in the Final IA EIS. This would temporarily lessen impacts to the Colorado River Indian Tribes (CRIT) and other Indian Tribes. Ultimately, impacts would be essentially as described in the Final IA EIS for the remainder of the quantification period. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam than envisioned under the maximum impact scenario in the Final IA EIS, which could result in slightly less reductions in power generation at Headgate Rock Dam and slightly less impacts to the CRIT and other Indian Tribes.

Under the revised water delivery schedule, potential environmental justice impacts to minority and low-income populations from the loss of low-wage agricultural jobs in the IID service area due to IID's water conservation actions would be similar to those described in the Final IA EIS. However, additional water conservation actions by IID could be implemented, if needed, to meet the ISG benchmarks. This could entail additional fallowing in the IID service area, but the maximum amount of fallowing needed to conserve up to 145 KAF of ISG benchmark water would be less than the amount of fallowing envisioned under the SSHCS analyzed in the Final IA EIS. Therefore, the potential environmental justice impacts from fallowing would fall within the range described in the Final IA EIS.

As noted above, potential residual impacts to employment in the IID service area would be somewhat reduced from what was described in the Final IA EIS, due to the establishment of an economic mitigation plan under the Water Delivery Agreement; this is a State-related action.

Potential environmental justice impacts from CVWD's construction of QSA-related facilities and groundwater recharge activities would be the same as those described in the Final IA EIS. The revised water delivery schedule would result in no new construction or operational changes that could result in environmental justice impacts in the MWD or SDCWA service areas.

As discussed in the Final IA EIS, potential impacts on a minority population (i.e., Hispanic population) near the Salton Sea could occur as a result of high and adverse air quality impacts due to declining shoreline levels of the Sea (see *Air Quality* below). With the implementation of the revised water delivery schedule, this potential impact would be postponed slightly in the short-term, but ultimately would be the same as in the Final IA EIS.

No new mitigation measures are proposed for environmental justice, and no new residual impacts would occur.

### **Cultural Resources**

The Final IA EIS concluded there would be no impacts to either Parker or Imperial Dams, or cultural resources along the Colorado River. With implementation of the revised water delivery schedule, the decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule. This would not result in any new impacts to cultural resources. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam than envisioned under the maximum impact scenario in the Final IA EIS. This also would not result in any new impacts to cultural resources.

No aspects of the revised water delivery schedule would result in construction or other ground disturbance that could affect cultural resources, including prehistoric and historic resources, or resources that are valued by a cultural group or community. No new mitigation measures are proposed for cultural resources, and no new residual impacts would occur.

## **Tribal Resources**

With implementation of the revised water delivery schedule, the decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule, which could temporarily lessen any potential impacts to tribal resources. Ultimately, impacts to tribal resources would be essentially as described in the Final IA EIS. In years when MWD implements the exchange of up to an additional 100 KAFY of CVWD State Water Project water, there would be slightly more flow reaching Imperial Dam than envisioned under the maximum impact scenario in the Final IA EIS, which could result in slightly less impacts to tribal resources. The revised water delivery schedule would result in no new construction or changes in operation that would impact tribal resources in the IID, MWD, or SDCWA service areas.

Drinking water quality of the Torres Martinez Band of Desert Cahuilla Indians and Agua Caliente Band of Cahuilla Indians is anticipated to be adversely affected by increased Total Dissolved Solids (TDS) from CVWD's groundwater recharge of Colorado River water, as described in the Final IA EIS. With the implementation of the revised water delivery schedule, CVWD groundwater recharge activities could be delayed a few years during the new "ramp-up" period, but impacts to tribal resources ultimately would be essentially as described in the Final IA EIS.

The Torres Martinez Band of Desert Cahuilla Indians would be potentially affected by air quality impacts from exposed Salton Sea shoreline associated with IID's water conservation actions (see *Air Quality* below), as described in the Final IA EIS. This could also expose tribal lands that are currently inundated by the Sea, which could contain natural and cultural resources considered by the Torres Martinez Band to be Indian Trust Assets (ITAs). Because of their cultural, religious, and natural resource management connections to the Sea, and to its fish and wildlife resources, the Torres Martinez Band is concerned with any impact to the fishery resource or recreational economy of the Sea. With the implementation of the revised water delivery schedule, tribal resource impacts associated with the Salton Sea could be postponed a few years, but ultimately would be the same as those described in the Final IA EIS.

No new mitigation measures are proposed for tribal resources, and no new residual impacts would occur.

## **Air Quality**

With implementation of the revised water delivery schedule, the decrease in water surface elevation of the Colorado River between Parker and Imperial dams would be slightly less than originally projected for the first 18 years of the water delivery schedule, which could temporarily lessen any potential impacts to air quality. Ultimately, impacts to air quality would be essentially as described in the Final IA EIS. Changes in water surface elevation at Lakes Powell and Mead would be similar to those described for the Final IA EIS, and would not result in additional air quality impacts. There would be no additional air quality impacts along the Colorado River during years when MWD implements the exchange of additional CVWD State Water Project water.

Potential air quality impacts in the IID service area from IID's water conservation actions (i.e., fallowing) related to the revised water delivery schedule would be similar to those described in the Final IA EIS, even though some of the conserved water during the first 15 years of the revised water delivery schedule, through an exchange of non-Colorado River water, would be used as mitigation water for the Salton Sea instead of being transferred to another water district. However, additional water conservation actions by IID could be implemented, if needed, to meet the ISG benchmarks. This could entail additional fallowing in the IID service area, but the maximum amount of fallowing needed to conserve up to 145 KAF of ISG benchmark water would be less than the amount of fallowing envisioned under the SSHCS analyzed in the Final IA EIS. Therefore, the potential air quality impacts from fallowing would fall within the range described in the Final IA EIS.

Potential air quality impacts from CVWD's construction of QSA-related facilities and groundwater recharge activities would be the same as those described in the Final IA EIS. The revised water delivery schedule would result in no new construction or changes in operation that would impact air quality in the MWD or SDCWA service areas.

Odorous emissions in the Salton Sea could occur when salinity levels of the Sea increase to a point where fish no longer survive. Under the revised water delivery schedule, the Sea would not reach salinity levels of 60,000 mg/L (the point at which fish are not expected to survive) until 2019, as opposed to 2012 under the maximum impact scenario described in the Final IA EIS. This salinity level would still be reached earlier than it would under No-Action conditions, under which it is expected to occur in 2023. Air quality impacts from odorous emissions would be the same as those described in the Final IA EIS, but would likely be postponed a few years with the implementation of the revised water delivery schedule.

Decreased water surface elevation of the Salton Sea could impact air quality by increasing fugitive dust from the exposed shorelines, as described in the Final IA EIS. The revised water delivery schedule would provide mitigation water for the Sea for the first 15 years of the delivery schedule, which would delay the onset of fugitive dust emissions by a few years. In addition, water surface elevation of the Salton Sea in 2077 is expected to reach -247 feet below mean msl under the revised water delivery schedule as opposed to -250 feet below msl under the maximum impact scenario described in the Final IA EIS. Fugitive dust emissions related to the Sea, therefore, would be the similar to those described in the Final IA EIS, but would be delayed by a few years, and could be of slightly less severity.

No new or revised mitigation measures are proposed for air quality, and no new residual impacts would occur.

### **Transboundary Impacts**

The revised water delivery schedule does not affect water deliveries to Mexico. Because there is no discernible impact on reservoir storage between the revised water delivery schedule and the maximum impact scenario in the Final IA EIS, no discernible effect is anticipated for flood releases and excess flows to Mexico. Changes to excess flows to Mexico, and associated impacts on biological resources, would be of the same magnitude as described in the Final IA EIS.



## **Cumulative Impacts**

No substantial changes to those projects considered in the Final IA EIS cumulative analysis have been identified, and, therefore, the only potential change to cumulative impacts would relate to the revised water delivery schedule. Overall, the environmental impacts would be the same or slightly less under the revised water delivery schedule compared to the maximum impact scenario analyzed in the Final IA EIS. Therefore, the potential environmental changes related to the revised water delivery schedule would not result in substantial new cumulative impacts.

## **2.2 IMPACTS RELATED TO CHANGES IN RECLAMATION'S PROPOSED SPECIES CONSERVATION PLAN**

The changes to Reclamation's proposed species conservation plan that have occurred since issuance of the Final IA EIS were designed to reduce impacts to some State and federally-listed species that could be affected by IID's water conservation actions.

*California Brown Pelican.* This new measure would create two new roosting sites in southern California that would support at least 1,200 pelicans. Supplemental environmental compliance, as applicable, would be carried out by the entity responsible for implementing this measure, once detailed planning information is available for the new roosting sites. It is expected that no significant unavoidable impacts would occur with the implementation of this measure.

*California Black Rail.* This new measure was designed so that the new marsh habitat associated with the Yuma clapper rail conservation measures would also take into consideration the habitat requirements of the California black rail. Since no additional acreage of marsh habitat would be created specifically for the California black rail, this measure would create no environmental impacts beyond those potentially associated with the Yuma clapper rail conservation measures (see below).

*Desert Pupfish.* Revisions to the Desert pupfish conservation measures include construction and maintenance of one pupfish refugium pond, the funding of a study program, and the implementation of a monitoring program. As the entity responsible for constructing the refugium pond, Reclamation has committed to supplemental NEPA compliance, as appropriate, once detailed planning information is available. Funding a study program and implementing a monitoring program would not create substantive environmental impacts since they would not result in any new construction or changes in operation of an existing system. It is expected that no significant unavoidable impacts would occur with the implementation of this measure.

*Yuma Clapper Rail.* The revised Yuma clapper rail conservation measures would create up to 73 acres of high quality managed marsh habitat. Supplemental environmental compliance, as applicable, would be carried out by the entity responsible for implementing this measure, once detailed planning information is available for the new marsh habitat. It is expected that no significant unavoidable impacts would occur with the implementation of this measure.

*Southwestern Willow Flycatcher.* The revised Southwestern willow flycatcher conservation measures would dictate that potential construction activities in flycatcher breeding habitat for the seepage recovery systems, included in the originally proposed species conservation plan,

would occur outside the breeding season. This measure would not create any environmental impacts.

### **2.3 IMPACTS RELATED TO THE 2001 AND 2002 OVERRUN PAYBACKS**

Potential hydrologic effects related to the 2001 and 2002 overrun payback schedule have been examined as part of the analysis on the Water Delivery Agreement (see Attachment B for detailed analysis). The payback for the overruns that were incurred in 2001 and 2002 would begin in 2004 and extend over a maximum of eight years. During payback years, less water would be released from Lake Mead to the entity with the overrun, and more water would be available to satisfy other beneficial uses or increase the storage content of Lake Mead. Therefore, consistent with similar findings from the Final IA EIS analyses, the proposed payback schedule for the 2001 and 2002 overruns could have a positive effect on Lake Mead water levels and storage. In that case, Lake Powell would not be required to release additional water for equalization and, therefore, the payback could also have a positive effect on Lake Powell.

Based on the analysis in Attachment B, the potential reduction between Hoover and Parker Dams was determined to be well within the natural fluctuation due to hydrologic variability. For the river reach between Parker and Imperial Dams, it was determined that the combined effects of the payback and water transfers proposed by the Water Delivery Agreement clearly fall within the range previously analyzed for the IOP Policy in the Final IA EIS. Potential environmental impacts related to the 2001 and 2002 overrun payback schedule, therefore, would be similar to those described for the adoption of the IOP Policy in the Final IA EIS. There would be no effect on listed species from implementation of the 2001 and 2002 payback schedule.

### 3.0 CONCLUSION

The environmental impacts associated with the implementation of the Water Delivery Agreement would fall within the range of impacts analyzed in the Final IA EIS. The major difference in the revised water delivery schedule under the Water Delivery Agreement relates to the new “ramp-up” schedule. The revised water delivery schedule would temporarily lessen or delay some environmental impacts related to the Colorado River, the IID service area, and the Salton Sea, when compared with the maximum impact scenario analyzed in the Final IA EIS. Compliance with NEPA, ESA and the National Historic Preservation Act would be undertaken, as appropriate, prior to transfer of “Mitigation Increment” through an exchange of non-Colorado River water, or “Restoration Increment” water, that is subject to applicable Federal approvals, as noted in section 1.4 above.

The changes to Reclamation’s proposed species conservation plan are relatively minor and were designed to reduce impacts to some State and federally-listed species that could be affected by IID’s water conservation actions. Supplemental environmental compliance, as applicable, would be carried out by the entity responsible for implementing each measure, once detailed planning information is available. As discussed above, it is expected that no significant unavoidable impacts would occur with the implementation of any conservation measure associated with the proposed species conservation plan.

Although payback of overruns pursuant to annual operations does not require environmental compliance, this Environmental Evaluation included an analysis of the 2001 and 2002 overrun paybacks, as described in the Water Delivery Agreement, to ensure completeness in the environmental evaluation. Analysis of the hydrologic effects of the 2001 and 2002 overrun payback schedule concluded that the combined effects of the overrun payback and water transfers proposed by the Water Delivery Agreement fall within the range previously analyzed for the IOP Policy in the Final IA EIS. Potential environmental impacts related to the 2001 and 2002 overrun payback schedule, therefore, would be similar to those described for the adoption of the IOP Policy in the Final IA EIS.

Implementation of the Water Delivery Agreement, revised species conservation plan, and 2001 and 2002 overrun payback schedule are not considered substantial changes to the proposed action analyzed in the Final IA EIS that are relevant to its environmental effects nor has significant new circumstances or information relevant to the environmental concerns that bear on the proposed action or its impacts come to light. Therefore, preparation of a supplement to the Final IA EIS is not necessary.

**ATTACHMENT A**

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**Colorado River Water Delivery Agreement**

**ATTACHMENT B**

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**Technical Memorandum: Review of Potential Hydrologic Effects Associated With  
Colorado River Water Delivery Agreement**

## **ATTACHMENT C**

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**Review of December 18, 2002 Final Biological Opinion (BO) on Reclamation's Proposed Section 7(a)(1) Conservation Measures for Listed Species in the Imperial Irrigation District (IID)/Salton Sea Areas in Light of Revised Colorado River Water Delivery Agreement, and U.S. Fish and Wildlife Service Letter of Concurrence dated October 7, 2003**