

**Final Environmental Impact Statement/  
Final Environmental Impact Report  
Coachella Canal Lining Project**

**Attachments**

- Attachment A.** Summary of Revisions to the Previous (1994) Draft EIS/EIR
- Attachment B.** Public Law 100-675
- Attachment C.** Effects Not Found to be Significant
- Attachment D.** Glossary of Botanical Terms
- Attachment E.** Environmental Appendix Update
- Attachment F.** Air Quality Data Sheets, Including Assumptions and Emissions
- Attachment G.** Comments Received on the Previous (1994) Draft EIS/EIR
- Attachment H.** Correspondence with U.S. Fish and Wildlife Service
- Attachment I.** California SHPO Acknowledgment of the Initiation of Consultation
- Attachment J.** Distribution List for the Revised and Updated Draft EIS/EIR

**Attachment A**

**Summary of Revisions to the Previous (1994) Draft EIS/EIR**



**ATTACHMENT A**  
**SUMMARY OF REVISIONS MADE TO THE**  
**PREVIOUS (1994)<sup>1</sup> COACHELLA CANAL LINING PROJECT DRAFT EIS/EIR**

In accordance with the implementing guidelines of the California Environmental Quality Act (CEQA), when an entire Environmental Impact Report (EIR) is recirculated, the lead agency shall, “in the revised EIR, or by an attachment to the revised EIR, summarize the revisions made to the previously circulated draft EIR” (Cal. Code Regs., Title 14, § 15088.5 (2)(g)). The federal National Environmental Policy Act (NEPA) has no similar guidance regarding recirculation. Consistent with State law and implementing regulations, a summary of revisions to the previous Draft EIS/EIR (1994) is provided in this attachment. This attachment does not address changes to the Revised and Updated Draft EIS/EIR (circulated in 2000) that have been incorporated into this Final EIS/EIR (2001).

In general, changes to the Draft EIS/EIR were made to:

- update the description of the proposed project’s physical and human environment and revise the assessment of project impacts accordingly,
- reflect changes in the regulatory environment (such as changes in the status of species listed as threatened or endangered pursuant to the federal Endangered Species Act),
- update the assessment of the proposed project in consideration of other related projects, including regional water resource projects and other projects that may contribute incrementally to cumulative effects, and
- address comments raised during the public review of the previous Draft EIS/EIR (Attachment G contains copies of all comments received).

It is worth noting that substantial portions of the Draft EIS/EIR required only minimal changes, including the purpose and need and the descriptions of the alternatives.

---

<sup>1</sup> Although the cover of the previous Coachella Canal Lining Project Draft EIS/EIR is dated “1993,” that draft document was not circulated for public review until early 1994, and it is therefore now referred to as the “1994” Draft EIS/EIR. The Revised and Updated Draft EIS/EIR for the Coachella Canal Lining Project had references in various locations to both the “1993” and “1994” Draft EIS/EIR. These references both referred to the same document, and to avoid confusion, references to the previous Draft EIS/EIR have been revised to reflect its 1994 circulation date.

Following is a chapter-by-chapter summary of changes to the previous Draft EIS/EIR that were incorporated into the Revised and Updated Draft EIS/EIR.

## **PURPOSE AND NEED**

The general purpose and need of the proposed action—to conserve water that currently seeps from the earthen lined sections of the Coachella Canal—remains the same as before. The water need discussion has been updated to reflect that conserved water would help California reduce its use of Colorado River water to within the State’s basic (non-surplus year) annual apportionment of 4.4-million acre-feet, and that it would also facilitate implementation of the San Luis Rey Indian Water Rights Settlement Act. Additionally, the description of the Coachella Canal Lining Project’s relationship to other projects was updated.

## **ALTERNATIVES**

Only minimal changes were required for the description of the alternatives because the proposed methods of construction have not changed. The projected costs of the alternatives were updated using the “composite trend” from the Bureau of Reclamation’s Construction Cost Trends index. Some cost estimates, which are not required under NEPA or CEQA and are not necessary for this environmental evaluation, were deleted. These include projected mitigation costs, which would be difficult to quantify given the range of possible options for mitigating impacts to affected habitat, and the cost per acre-foot of water conserved.

The length of the unlined canal sections was corrected in this and other chapters (it is a total of 33.2 miles long, not 33.4 miles long as was stated in the previous Draft EIS/EIR). In addition, the EIS/EIR now describes in more detail how the three project alternatives would be constructed in the vicinity of the Eagle Mountain Railroad, which traverses the canal approximately 4,000 feet upstream of siphon 24.

## **AFFECTED ENVIRONMENT AND ENVIRONMENTAL CHANGES**

For each environmental resource area, significance criteria were added to more clearly describe the factors considered in evaluating impact significance. At the beginnings of the respective environmental consequences subsections, summary statements have been added to make clear whether an alternative would cause significant impacts prior to mitigation and whether those impacts would be mitigated to less than significant levels.

### **Geographic Setting, Geologic Resources, and Seismicity**

This discussion was formerly titled, “General Project Setting.” This section describes the project area’s geologic conditions and seismicity—these have not changed measurably since 1994. The former BLM-designated Salt Creek Area of Critical Environmental Concern (ACEC) has been expanded and is now called the Dos Palmas ACEC. In response to a California Department of Parks and Recreation comment letter on the previous Draft EIS/EIR, the description of the Dos Palmas ACEC also notes that the California Department of Parks and Recreation has land management responsibilities for its property in this area (this property occurs between the Southern Pacific Railroad tracks and the Salton Sea). This section was also revised so that it would follow the format of the following sections in the chapter, including a more explicit discussion of the affected environment and an impact assessment.

### **Surface Water**

Few changes were required in this section because recent surface water flows and seepage losses are consistent with the data presented in the previous Draft EIS/EIR.

The Revised and Updated Draft EIS/EIR provided a summary comparison between (1) the 1993 geohydrology and engineering appendices from the previous Draft EIS/EIR, prepared by Reclamation specifically for this project and (2) the July 9, 1999 report titled *A Study on Seepage and Subsurface Inflows to the Salton Sea and Adjacent Wetlands* (prepared by Tetra Tech, Inc. under contract with the Salton Sea Authority). Reclamation’s 1993 geohydrology and engineering appendices remained the basis for the Revised and Updated Draft EIS/EIR.

During preparation of the Revised and Updated Draft EIS/EIR, flow and seepage loss data for the Coachella Canal were evaluated through the period ending in 1996 (the previous Draft EIS/EIR addressed flow and seepage data through 1990). The evaluation of six additional years of data showed that the mean annual average seepage losses in the unlined portion of the canal are within one percent of the previous estimated losses; accordingly, the computed annual loss of 32,350 acre-feet remains an appropriate basis for the related impact analyses.

The discussion of flows in Salt Creek was revised to reflect recent USGS stream gauge data. Based on flows measured at USGS gauge number 10254050 near the mouth of Salt Creek, since 1994 annual discharge to the Salton Sea declined continuously such that Salt Creek’s mean annual

discharge is currently 623-acre feet (based on calendar years 1996 through 1999) whereas discharges prior to the previous Draft EIS/EIR averaged approximately 2,000 acre-feet per year.

### **Groundwater**

As described above, the amount of seepage from the unlined portion of the Coachella Canal has remained relatively constant. As a result, only minor editorial (as opposed to substantive) changes were made to the description of groundwater resources and the groundwater impacts that would result from the proposed project.

### **Water Quality**

The baseline water quality parameters included in this section were revised to reflect more recent data (based on 1995 through 2000 measurements taken by CVWD). The water quality impacts of the project alternatives would remain as described in the previous Draft EIS/EIR.

### **Phreatophyte Habitat Along the Coachella Canal**

This section was renamed to reflect that much of the seepage-dependent habitat that has grown along the Coachella Canal is not wetland habitat, as defined by the EPA and the USACOE; rather, it is phreatophyte habitat. (Phreatophytes are plants that draw their water supply from groundwater.) Although the marsh/aquatic habitats present in the project area represent wetlands, the desert riparian habitats, which comprise the majority of seepage-dependent vegetation, do not meet the definition of wetlands, particularly with regard to saturated soils.

The assessment of phreatophyte habitat along the canal was updated to reflect current conditions. The previous Draft EIS/EIR analysis included a comparison of 1949 and 1988 aerial photographs. These photographs, in combination with a geohydrological analysis, were used to determine which phreatophyte vegetation was seepage induced (and therefore likely to be desiccated if the canal is lined). This previous analysis was updated by evaluating current wetland habitat using 1998 infra-red satellite images, augmented by 1998 true-color satellite images. Field assessment of the potentially affected vegetation was conducted in August 2000. Changes in the amount, type, and structure of phreatophyte vegetation were incorporated into the current assessment of phreatophyte habitat impacts and necessary mitigation.

This vegetation mapping effort revealed that the project area has experienced a 129-acre increase in salt cedar habitat, a 190-acre increase in salt cedar/honey mesquite habitat, and a 23-acre increase in honey mesquite habitat.

There were several changes to the mitigation plan. The mitigation plan was revised to:

- reflect the increased areal extent of salt cedar and honey mesquite habitats,
- present mitigation on an acre-for-acre basis instead of using habitat points (while maintaining the concept of ecological equivalency),
- reflect the relatively low habitat value provided by salt cedar, a nonnative invasive weed that can out-compete native vegetation,
- identify the elimination of salt cedar stands as a potential means of increasing the amount of water available to other, native plants in the affected area, particularly within the Dos Palmas ACEC,
- incorporate guidance and recommendations from the BLM's 1998 *Dos Palmas Area of Critical Environmental Concern Management Plan and Decision Record*, and
- demonstrate the feasibility of accomplishing the required mitigation in and adjacent to the Dos Palmas ACEC.

Although the revised mitigation plan uses acre-for-acre ratios instead of a habitat value point system, the current mitigation requirements for native vegetation impacts are generally the same as the previous Draft EIS/EIR mitigation requirements for impacts to native vegetation. Those requirements were established as the result of a biological work group consisting of federal, State, and local agencies. The current mitigation ratio for salt cedar habitat reflects a lower habitat value than was assigned to salt cedar in the previous Draft EIS/EIR. Because salt cedar constitutes the majority of desert riparian habitat in the project area, this has reduced the number of acres of land purchase and desert riparian habitat creation that would be required as mitigation for the Coachella Canal Lining Project.

### **Marsh/Aquatic and Desert Riparian Habitat Along the Colorado River**

This section was also revised to distinguish between “marsh/aquatic and desert riparian habitats” and “wetlands.” This section no longer addresses the Coachella Canal Lining Project’s incremental

contribution to potential cumulative impacts on the Colorado River; rather, that assessment is now contained in the cumulative impacts analysis.

### **Terrestrial Habitat**

Only minor changes to the previous Draft EIS/EIR were required because the terrestrial habitat impacts of the proposed project would be essentially the same as those described in the previous document.

### **Special Status Species**

This section was revised to reflect habitat assessments and surveys conducted by Reclamation staff and contractors subsequent to the previous Draft EIS/EIR.

This section was also revised to reflect changes in the regulatory environment. For example, in 1995 (subsequent to the release of the previous Draft EIS/EIR), the southwestern willow flycatcher was listed by the U.S. Fish and Wildlife Service (FWS) as endangered. Similarly, the least Bell's vireo, which is federally and State listed as endangered, has been added to Section 3.8. As described in that section, however, the project area does not include suitable southwestern willow flycatcher or least Bell's vireo breeding habitat and includes only marginal foraging habitat for transient or migrants of these species.

Also with regard to the changed regulatory environment, this section notes that FWS has discontinued the use of Candidate Category 1, 2, and 3 as viable sensitivity status descriptors. The special status species description also reflects the Conservation Agreement adopted by several federal agencies, including Reclamation, regarding the flat-tailed horned lizard. The project area does not encompass any flat-tailed horned lizard Management Areas, as designated in the Conservation Agreement.

Currently, there is only one animal known from the project vicinity that is a Candidate for federal listing as endangered or threatened, the Coachella Valley round-tailed squirrel. The status of other federally listed threatened and endangered species, as well as state-listed species, were also updated to reflect current conditions.

### **Endangered Species Consultation**

This section was revised to reflect that Reclamation has reinitiated consultations with FWS regarding this project.

### **Large Mammal Escape**

Only minor, editorial changes were made to this section because the potential impacts and the proposed mitigation for large mammal escape would be essentially the same as described in the previous Draft EIS/EIR.

### **Canal Fishery**

Only minor, editorial changes were made to this section because the potential impacts to the canal fishery, and the proposed mitigation for these impacts, would be essentially the same as described in the previous Draft EIS/EIR. As described in this section of the Revised and Updated Draft EIS/EIR, the California Department of Fish and Game (DFG) has not stocked fish in the Coachella Canal since the previous Draft EIS/EIR was circulated in 1994.

### **Cultural Resources**

There has been no change to the cultural resources setting in terms of prehistoric and archaeological resources along the canal, and potential impacts to these resources would be mitigated as described in the previous Draft EIS/EIR. The discussion of archaeological resources more explicitly addresses compliance with federal laws protecting cultural resources, including the National Historic Preservation Act and the Native American Graves Protection and Repatriation Act.

A discussion of historical resource impacts to the 51-year-old canal was added to the Revised and Updated Draft EIS/EIR. At the time that the previous Draft EIS/EIR was prepared and circulated, the Coachella Canal was less than 50 years old. Based on the canal's current age and its importance in the development of the Coachella Valley, impacts to the canal associated with the proposed project could represent a significant historical resource impact. The impacts of the Conventional Lining Alternative and the Underwater Lining Alternative could be mitigated through appropriate documentation of the existing unlined canal section; impacts associated with the Parallel Canal Alternative may (pending consultation with the State Historic Preservation Officer) represent an unmitigable impact to a potentially historical resource.

### **Indian Trust Assets**

This section was revised to reflect that there are two Indian Trust Assets that either occur in the vicinity of the Coachella Canal or that may be affected by the proposed project: (1) the Torres-Martinez Indian Reservation and (2) facilitation of implementation of the San Luis Rey Indian Water Rights Settlement Act (P.L. 100-675 Title I). As described in the revised section, the proposed project would have no impact on the Torres-Martinez Indian Reservation, and it would help facilitate implementation of the San Luis Rey Indian Water Rights Settlement Act.

### **Recreation**

This section was revised to show that the proposed project's minor impacts to recreational visitors to the area would not constitute a significant impact unless construction activities block access to the BLM-maintained Bradshaw Trail. Based on this revised assessment, the only mitigation required for recreation-related impacts is to ensure that the Bradshaw Trail will remain open during construction.

### **Land Ownership and Use**

Land use information was updated using 1998 satellite images and field work conducted in summer 2000. This updated information is presented in a different format than was used in the previous Draft EIS/EIR—in the revised document, land uses in the vicinity of the canal are described narratively from upstream (siphon 7) to downstream (siphon 32).

A discussion of land purchases for mitigation has been added to this section. The previous Draft EIS/EIR had not discussed the potential purchase of property as mitigation for impacts to seepage-induced marsh/aquatic and desert riparian habitats. Property acquisition would probably occur in or near the Dos Palmas ACEC.

### **Sand and Gravel Supplies**

Relatively few changes were required in this section. A reference to potential sources of sand and gravel on Indian Lands was added at the request of the Bureau of Indian Affairs.

## **Transportation**

This section now reflects that a traffic control plan would be contractually required to be developed and implemented by the project contractor and that this is a project design feature, not mitigation.

## **Air Quality**

The air quality analysis was revised substantially to:

- reflect recent monitoring air quality data from the project area,
- address changes to the applicable federal and state laws and regulations, including amendments to the Federal Clean Air Act,
- provide more detailed calculations of projected construction-related pollutant emissions,
- compare those emissions with applicable significance thresholds, and
- assess General Conformity pursuant to Federal Clean Air Act guidelines (including a comparison of projected pollutant emissions with General Conformity *de minimis* thresholds).

As a result of this process, additional air quality mitigation has been identified for the three project alternatives. For the Parallel Canal Alternative, which would exceed *de minimis* levels for oxides of nitrogen (NO<sub>x</sub>), the Revised and Updated Draft EIS/EIR addressed the requirement for Reclamation to receive concurrence from the Imperial County Air Pollution Control District and the South Coast Air Quality Management District that this alternative would be in conformance with their respective State Implementation Plans. This requirement only applies to the Parallel Canal Alternative because the other project alternatives would not exceed *de minimis* levels of regulated pollutants.

As a result of the revised air quality assessment, it is now shown that the Conventional Lining Alternative would exceed SCAQMD CEQA significance thresholds for particulate matter less than 10 microns in diameter (PM<sub>10</sub>) and the Underwater Lining and Parallel Canal alternatives would exceed SCAQMD CEQA significance thresholds for PM<sub>10</sub> and oxides of nitrogen (NO<sub>x</sub>).

## **Hydroelectric Power**

This section now more clearly identifies that only two hydroelectric facilities along the Colorado River would be affected by reducing releases at Parker Dam—the powerplants at Parker Dam and

Headgate Rock Dam. As described in the previous Draft EIS/EIR, impacts to hydroelectric power generation would not be significant.

### **Public Safety**

This section now describes how, with the implementation of standard construction safety measures such as restricting access to the construction site and implementing a traffic control plan, public safety impacts would not be significant and would not require mitigation.

A discussion of the proposed project's compliance with Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, has been added to this section. As discussed in the Revised and Updated Draft EIS/EIR, none of the alternatives would pose significant or disproportionate health risks to children.

### **Socioeconomic Aspects**

The baseline socioeconomic data was updated with more current population, demographic, employment, and income estimates and projections. The assessments of project-generated salaries were updated using prevailing wage data for southern California counties, as published by the California Director of Industrial Relations. At the request of the California Department of Parks and Recreation, an assessment of the proposed project's relatively minor socioeconomic effects on the Salton Sea State Recreation Area was included in this section. In addition, an assessment of project compliance with Executive Order 12898, Environmental Justice, was added to the socioeconomic impact analysis.

### **Growth Inducement**

This analysis was revised to more clearly state why the proposed project would not induce growth in the project area or on the California coastal plain. The only available conveyance facility from the Colorado River to the coastal plain is MWD's Colorado River Aqueduct. The Colorado River Aqueduct is capable of diverting about 1.25 million acre-feet per year and has been operating at or near full capacity over the past 15 years. No additional water above the amount currently diverted would be brought to the coastal plain from the Colorado River, and this project merely helps to keep the Colorado River Aqueduct full. Therefore, growth inducing impacts would not occur.

## **CUMULATIVE IMPACTS**

The cumulative impacts analysis was updated to include a more current list of past, present, and reasonably foreseeable future projects. One change from the previous cumulative impact analysis is that there are now separate NEPA and CEQA compliance documents that are specifically addressing the combined effects of the various proposed water transfers on the lower Colorado River:

- Reclamation is completing the Environmental Assessment on the Components of California's Colorado River Water Use Plan Requiring Secretarial Approval on Conservation Measures on the Lower Colorado River, and
- the Metropolitan Water District of Southern California, Imperial Irrigation District, Coachella Valley Water District, and the San Diego County Water Authority are joint lead agencies in the preparation of a Programmatic EIR to address the implementation of the Colorado River Quantification Settlement Agreement.

In order to ensure that cumulative impacts are adequately addressed, the analysis was broken down into an issue-by-issue discussion of the proposed project's incremental contribution to potential cumulative impacts.

In the Revised and Updated Draft EIS/EIR, the assessment of the proposed project's incremental contribution to marsh/aquatic and desert riparian habitats along the Colorado River (formerly titled "Wetlands Along the Colorado River") was revised to reflect that this incremental contribution to cumulative impacts along the river would be mitigated pursuant to the EA and Programmatic EIR referenced above and pursuant to the Final Biological Assessment for Proposed Interim Surplus Criteria, Secretarial Implementation Agreements for California Water Plan Components and Conservation Measures on the Lower Colorado River (Reclamation 2000c). Note that in this Final EIS/EIR, specific mitigation for the proposed project's incremental contribution to cumulative effects along the lower Colorado River has been identified, and these measures are consistent with the "Biological Opinion for Interim Surplus Criteria, Secretarial Implementation Agreements, Water Administration, and Conservation Measures on the Lower Colorado River, Lake Mead to the Southerly International Boundary, Arizona, California and Nevada" issued by the U.S. Fish and Wildlife Service in January, 2001.

## **SHORT TERM v. LONG TERM**

The assessment of the short-term use of man's environment versus maintenance and enhancement of long-term productivity was changed to reflect the updated and revised assessments of baseline conditions and project impacts, as contained in Chapter 3.0 of the Revised and Updated Draft EIS/EIR. These changes did not affect the overall assessment of short-term use versus long-term productivity.

## **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS**

The assessment of the proposed project's irreversible and irretrievable commitments is similar to the discussion provided in the previous Draft EIS/EIR.

## **ENVIRONMENTAL COMMITMENTS**

The summary of environmental commitments was revised to reflect changes made to the project design features that avoid or minimize environmental effects, as described in Chapters 2.0 and 3.0, and to reflect the mitigation measures identified in Chapter 3.0 of the Revised and Updated Draft EIS/EIR.

## **CONSULTATION AND COORDINATION**

This section was revised to reflect consultation efforts that have been reinitiated during the preparation of the Revised and Updated Draft EIS/EIR.

## **EFFECTS NOT FOUND SIGNIFICANT**

During preparation of the previous Draft EIS/EIR, the potential effects of the proposed Coachella Canal Lining Project were assessed using the CEQA checklist. As a result of this effort, several environmental resource or issue areas were identified as "Effects Not Found Significant" which did not require detailed analysis in the Draft EIS/EIR. In 1994, when the previous Draft EIS/EIR was published, the CEQA checklist was contained in Supplementary Document F to the State CEQA Guidelines. The CEQA checklist was since revised and is now contained as Appendix G to the State CEQA Guidelines.

CEQA does not require a reassessment of Effects Not Found Significant as part of Draft EIR recirculation. However, to ensure that no new issue areas required analysis in the Revised and Updated Draft EIS/EIR, the previous assessment of Effects Not Found Significant was reevaluated and updated in light of the revisions the checklist and the changes to the proposed project's physical, human, and regulatory environment (see Attachment C).

This Page Intentionally Left Blank