
Supplemental Information Report

All-American Canal Lining Project

Prepared by:
U.S. Bureau of Reclamation

January 12, 2006

Executive Summary

The lining of the All-American Canal (AAC) has been considered for decades, and in 1988 Public Law 100-675 authorized the Secretary of the Interior (Secretary) to construct a parallel lined canal or to otherwise recover the seepage from the canal using construction funds from California water agencies entitled to the use of Colorado River water. In April of 1994, Reclamation completed a Final Environmental Impact Statement/Environmental Impact Report for the AAC Lining Project (AAC Final EIS/EIR) that analyzed various alternatives to implement Public Law 100-675. The Record of Decision (ROD) for the Project was signed on July 29, 1994, and selected construction of a 23-mile parallel canal as the means to conserve approximately 67,700 acre-feet of seepage from the AAC.

For a variety of reasons, non-Federal funding for implementation of the Project was unavailable, and agreements on funding sources and the allocation of water conserved by the Project remained unresolved for a number of years after execution of the ROD. As a result of an intensive effort to require California to limit its use of Colorado River water in a normal year to its legal apportionment (and limit its historic overuse of Colorado River water), a series of agreements were signed in 2002 and 2003. Funding for the AAC Lining Project was authorized by the California Legislature in September 2003. Final designs for the AAC Lining Project were initiated in 2004 and largely completed in early January 2006. Construction is currently scheduled to begin in mid-2006.

In light of the authorization of final funding for the Project and the intent of the California water agencies to move forward with construction, and the availability of final design specifications from the construction entity (Imperial Irrigation District), this report presents a thorough reexamination and analysis of the AAC Final EIS/EIR to ascertain whether (1) the AAC Final EIS/EIR and ROD continue to meet the requirements of the National Environmental Policy Act (NEPA), and (2) a supplemental EIS/EIR is needed. This report presents an examination of new information relevant to the Project, together with a review of the information and environmental impacts described in the AAC Final EIS/EIR. For areas where new information was found, the information was reviewed to determine its significance and whether it would warrant the preparation of a supplemental NEPA analysis. This report also considers information relevant to consultation under the Endangered Species Act.

As described in this document, overall, no substantial project changes or significant new circumstances or information relevant to any of the environmental resource areas addressed in the AAC Final EIS/EIR and bearing on the Project or its impacts have occurred since completion of the document in 1994. New information is available for most of the resource areas. However, in all cases, this new information is not significant because it is consistent with the information in the AAC Final EIS/EIR, and no new or more severe impacts would occur.

Based on this review, Reclamation concludes that no significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994, and therefore a supplemental EIS/EIR is not required.

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Attachments

- A U.S. Fish and Wildlife Memorandum dated January 10, 2006. Subject: Request for Confirmation of Conference Opinion (1-6-96-F-12) as a Biological Opinion regarding the Effects of the All-American Canal Lining Project on the Threatened Peirson's Milk-vetch (*Astragalus magdalenae* var. *peirsonii*)
- B November 18, 2005 Biological Analysis for the All-American Canal Lining Project, Potential Species Impacts in the Republic of Mexico
- C U.S. Fish and Wildlife Memorandum dated January 11, 2006. Subject: Endangered Species Act Considerations in Mexico for the All-American Canal Lining Project
- D Clean Air Act Conformity Analysis and Record of Non-Applicability (RONA) for Construction of the All American Canal Lining Project
- E Programmatic Agreement among the United States Department of the Interior Bureau of Reclamation, and the Bureau of Land Management, the California State Historic Preservation Officer, and the Imperial Irrigation District Regarding the Construction of the All American Canal Lining Project Pursuant to Title II of Public Law 100-675
- F Environmental Commitment Plan for the All-American Canal Lining Project dated July 8, 2003

Introduction and Background

1.1 Introduction and Background

The All-American Canal (AAC) was authorized by the Boulder Canyon Project Act in 1928 (Public Law 70-642), constructed in the 1930s by the United States (U.S.) Bureau of Reclamation (Reclamation), and began delivering water in the 1940s. The AAC conveys over 3 million acre-feet (MAF) of Colorado River water annually for use in the Imperial Irrigation District (IID) and Coachella Valley Water District (CVWD) service areas. The AAC begins at Imperial Dam, located north of Yuma, Arizona, and generally parallels the U.S./Republic of Mexico (Mexico) Border to its terminus in the western Imperial Valley. The general locations of the AAC, the Coachella Canal, and adjacent cities and topographic features are shown on Figure 1.

The unlined AAC is porous, and Colorado River water has seeped into the ground since its construction in the 1930s. In Public Law 100-675 Congress authorized “[t]he Secretary [of the Interior], in order to reduce the seepage” to “construct a new lined canal or to line the previously unlined portions of the All American Canal from the vicinity of Pilot Knob to Drop 4” or to “construct seepage recovery facilities in the vicinity of Pilot Knob to Drop 4.” Public Law 100-675 precluded the use of Federal funds for conservation of the seepage water and funding from Colorado River water users in California was necessary for the AAC Lining Project (also referred to herein as the “Project”).

In April of 1994, Reclamation completed a Final Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) for the AAC Lining Project (AAC Final EIS/EIR) that analyzed various alternatives to implement Public Law 100-675 (Reclamation 1994a). This joint document was prepared pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, and the California Environmental Quality Act of 1973 (CEQA), as amended. The Record of Decision (ROD) for the Project was signed on July 29, 1994 (Reclamation 1994b). The alternatives analyzed in the AAC Final EIS/EIR would serve the purpose of conserving water “needed in the Southern California coastal area to offset a projected water shortage of 1.2 million acre feet that is expected by the year 2010” (AAC Final EIS/EIR Summary at S-1). The AAC Final EIS/EIR analyzed the environmental impacts of five alternatives: three consisted of lining the AAC, one consisted of the development of a well field to recover seepage, and one was the No Action alternative. The ROD for the Project, signed on July 29, 1994, selected the Parallel Canal Alternative as the means of implementing Public Law 100-675 (Reclamation 1994b).

Although the AAC Final EIS/EIR and ROD were completed in 1994, non-Federal funding for implementation of the Project was unavailable, and agreements on funding sources and the allocation of water conserved by the Project remained unresolved for a number of years. In light of tightening water supplies on the Colorado River, including a period of drought beginning in 1999 and renewed interest in the Project at that time, Reclamation’s Yuma Area Office prepared a reexamination and analysis of the AAC Final EIS/EIR to determine if it

was still adequate. Based on this review, Reclamation concluded that (1) there had been no significant changes in the Project or its environmental impacts since completion of the AAC Final EIS/EIR and ROD, (2) the AAC Final EIS/EIR continues to meet the requirements of NEPA, (3) the 1994 AAC Final EIS/EIR should be valid until projected completion of the proposed construction in 2006, and (4) a supplemental EIS/EIR was not required (Reclamation 1999b). However, after completion of this review in 1999, agreements on funding sources and the allocation of water conserved by the Project remained unresolved until late 2003.

In 2002 and 2003, State and Federal policy makers, the California water agencies that use Colorado River water, and the U.S. Department of the Interior began an intensive effort to assist California in reducing its historical overuse of Colorado River water. This effort resulted in a series of agreements; the primary agreement was the Colorado River Water Delivery Agreement of 2003, which settled by consensual agreement longstanding disputes regarding the priority, use, and transferability of Colorado River water in the State of California. These agreements are collectively intended to reduce California's use of Colorado River water to its 4.4 MAF legal apportionment in a normal year. The AAC Lining Project was included as a component of these agreements because the water conserved by the AAC Lining Project would assist California in reducing its use of Colorado River water. With the execution of these various agreements, funding for the Project was authorized by the California Legislature, primarily by Senate Bill 654 (Machado) in September 2003.

Design and other pre-construction activities for the AAC Lining Project began in early 2004 with the physical collection of preliminary design data, establishment of ground surveys, and performance of preliminary geotechnical reviews and investigations of the Project site under the guidance of an established All American Canal Lining Coordinating Committee (Coordinating Committee)¹. In September 2004, a Design Team led by Bookman-Edmonston, an engineering design firm, was selected to design the Project based on their experience, capabilities and performance in large canal designs. A Preliminary Concept Design Report was prepared in early February 2005.

A special Technical Review Board, consisting of engineering and professionals highly recognized in the construction industry, was assembled in February 2005 to conduct a "constructability review" of the Design Team's conceptual design. The Technical Review Board provided comments and recommendations to the Coordinating Committee for the Committee's information and consideration. In mid-February 2005, the Coordinating Committee provided guidance to the Design Team based on the Technical Review Board's recommendations and comments. Based on the Coordinating Committee and Technical Review Board's recommendations and comments, the Project's conceptual design was revised and a Draft Concept Design Report was submitted to the Coordinating Committee for review and concurrence in March 2005. In May 2005, the Draft Concept Design Report

¹ The voting members of the Coordination Committee include representatives of IID, SDCWA and a third party member (Chairman) elected by IID and SDCWA (Joe Summers of Summers Engineering). The non-voting members of the Coordination Committee include Reclamation, the California Department of Water Resources, and the San Luis Rey Water Right Settlement Parties. The U.S. Bureau of Reclamation, U.S. Border Patrol, the U.S. Fish and Wildlife Service and the California Department of Fish and Game regularly attend the Coordinating Committee meetings. The Coordinating Committee meets monthly.

was accepted by the Coordinating Committee and the final design process for the Project was initiated.

The Coordinating Committee and Design Team identified a process and schedule for completion of the Project's final design processes. The design schedule included 60 and 90-Percent reviews. Each of these reviews provided an opportunity for comments on Project's design by the Coordinating Committee, participating contractors, IID (the existing operations and maintenance provider), and Reclamation. The 60-Percent Design Review and the 90-Percent Design Review were conducted in July and October 2005, respectively. With acceptance of the Proof Set Designs by the Coordinating Committee, the Proof Set Designs were submitted to Reclamation in early January 2006 (IID 2006). The Proof Set Designs provide complete design specifications with only minor changes needed for the completion of the Final Specification (Final Designs). If Reclamation provides written approval of the Proof Set Designs, then IID will issue the Project's bid package and solicit bids for construction of the Project. IID anticipates finalizing the Project's construction contract in early 2006, and construction is scheduled to begin in mid-2006. The Project construction reaches are shown on Figure 2.

In light of the authorization of final funding for the Project and the intent of the California water agencies to move forward with construction, this report presents a new reexamination and analysis of the AAC Final EIS/EIR to ascertain whether (1) the AAC Final EIS/EIR and ROD continue to meet the requirements of NEPA, and (2) a supplemental EIS/EIR is needed.

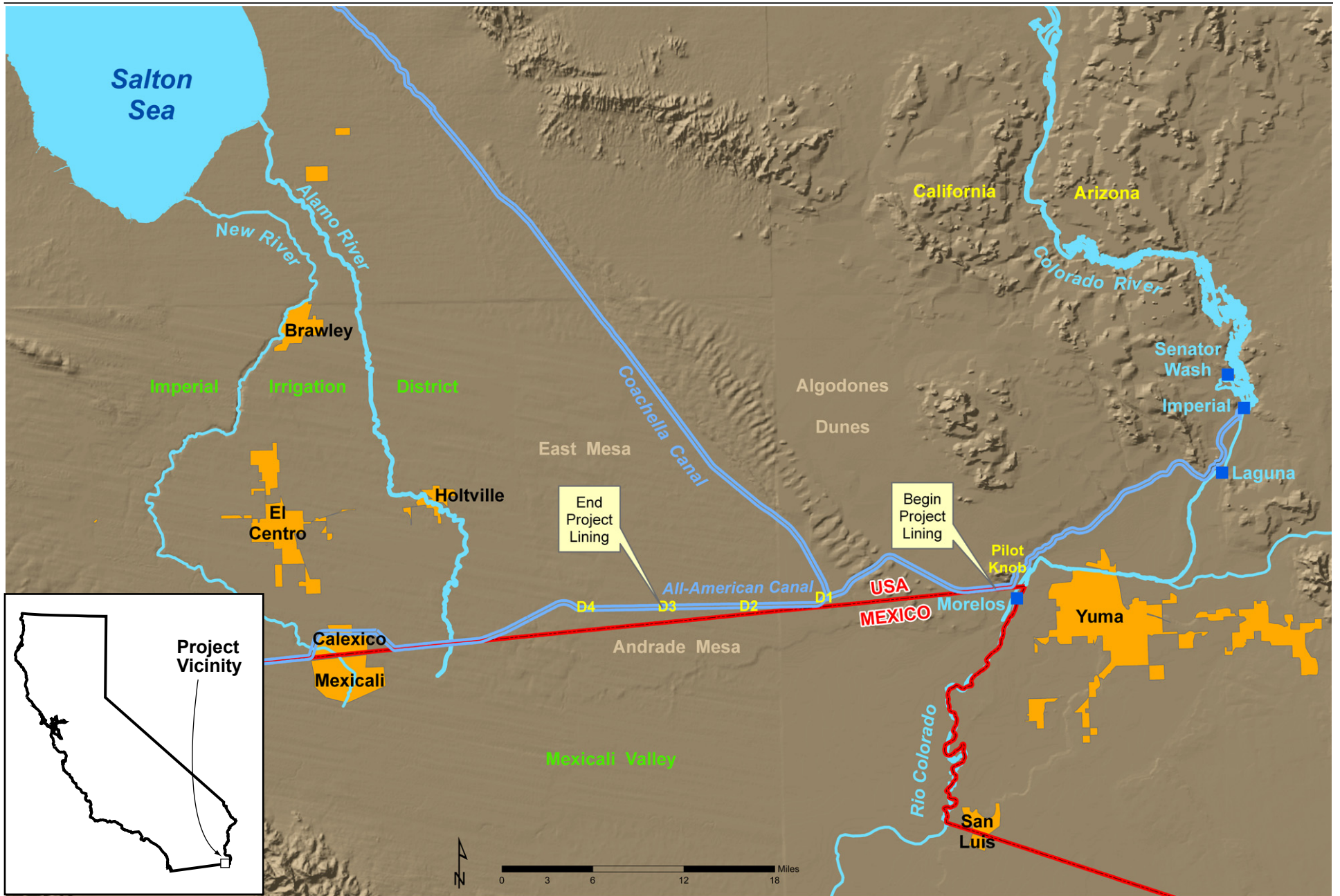
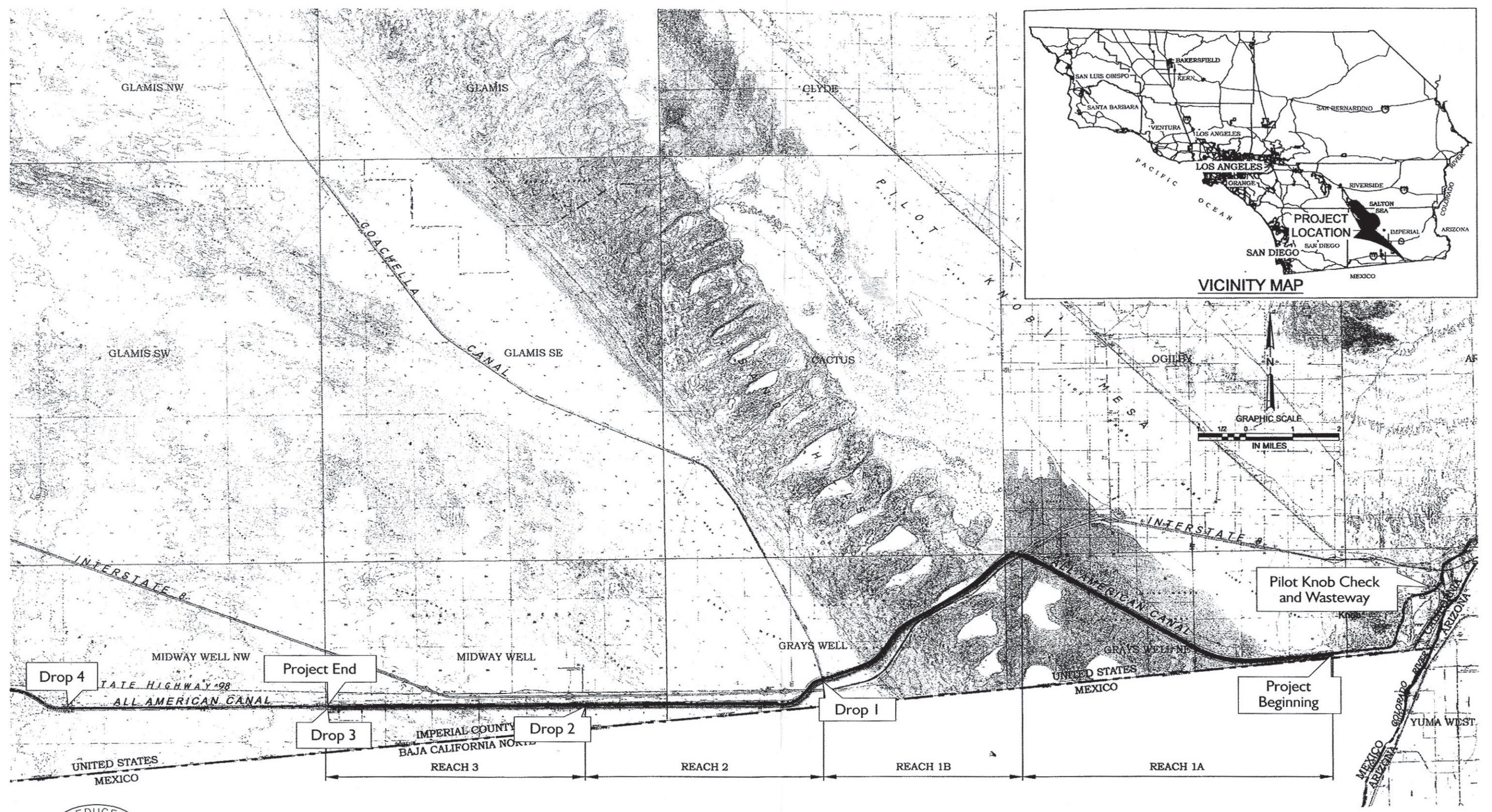


FIGURE 1
General Location of the All-American Canal



REDUCED
NOTE
DRAWING

FOR REVIEW PURPOSES ONLY

AAC - 102

| REV | DATE | BY | DESCRIPTION |
|-----|------|----|-------------|
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| | | | |
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DESIGNED HUANG
DRAWN TURNER
CHECKED HUANG

SUBMITTED
PROJECT MANAGER 45611 R.C.E. No. DATE
DESIGN MANAGER - MWH 54852 R.C.E. No. DATE

Bookman-Edmonston
A Division of GEI Consultants
in association with MWH

STATE
EXECUTIVE PROGRAM MANAGER _____ R.C.E. No. DATE
CHIEF ENGINEER _____ R.C.E. No. DATE

ALL AMERICAN CANAL LINING PROJECT
Figure 2
All-American Canal Construction Reaches

DATE
February, 2005
FILE NO.
?

SECTION 2

Guidance and Summary Results of Reexamination and Analysis

This reexamination and analysis of the AAC Final EIS/EIR was performed in light of the authorization of final funding for the Project and the intent of the California water agencies to move forward with construction. Guidance for this reexamination and analysis is provided in Section 2.1 and the results are summarized in Section 2.2. The results of the analysis are provided in detail in Section 3.

2.1 Guidance for Reexamination and Analysis

2.1.1 Guidance for NEPA Evaluation

The Council on Environmental Quality (CEQ) regulations provides direction regarding the review of an EIS and preparation of supplemental statements before a proposal has been implemented. The CEQ regulations (Section 1502.9(c)) state:

Agencies shall prepare supplements to either draft or final EIS's if:

- 1. The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or*
- 2. There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.*

A supplemental EIS is prepared under the above circumstances to ensure that the agency has the best possible information to make any necessary substantive changes in its decisions regarding the proposal.

In evaluating the present day adequacy of the AAC Final EIS/EIR, the criteria in Section 1502.9(c) of the CEQ regulations were employed to determine: (1) if substantial changes have been made to the Project since completion of the AAC Final EIS/EIR in 1994 that are relevant to environmental concerns, and (2) if significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994².

2.1.2 Guidance for Endangered Species Act Evaluation

Guidance for reinitiation of formal consultation (reconsultation) under Section 7 of the Endangered Species Act (ESA) is provided in the Code of Federal Regulations (CFR) at 50 CFR § 402.16. A Federal agency may wish to consider reinitiation of consultation where

² CEQA has similar guidelines for the preparation of either a subsequent EIR, supplement to an EIR, or an addendum to an EIR (Title 14, California Code of Regulations [CEQA Guidelines], Article 11, Parts 15162, 15163, and 15164).

discretionary Federal involvement or control over the action has been retained or is authorized by law and:

1. If the amount or extent of (specified) incidental take is exceeded;
2. If new information indicates that the project may affect listed species or critical habitat in a manner or to an extent not previously considered;
3. If the project is changed in a way that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or,
4. If a new species is listed or critical habitat designated that may be affected by the identified action.

Reclamation has met its ESA compliance obligation for listed species. Within the U.S., Peirson's milk-vetch was listed as endangered after Reclamation issued the 1994 ROD. To avoid jeopardy to the species and to fulfill its consultation obligation under Section 7 of the ESA, on September 9, 2004, Reclamation requested that the U.S. Fish and Wildlife Service (Service) convert its 1996 Conference Opinion into a Biological Opinion for this species. The Service's response was received on January 10, 2006 and confirmed the adoption of the Conference Opinion as the Biological Opinion for Peirson's milk-vetch (Service 2006a; see Attachment A). The Service determined that no significant new information has been developed and no significant changes to the Project have been made that would alter the content of the Service's Biological and Conference Opinion (BCO) on the Project's effects on the Peirson's milk-vetch.

Reclamation also addressed U.S.-listed species that reside in Mexico and may be potentially affected by the AAC Lining Project. On November 18, 2005, Reclamation contacted the Service to (1) transmit information about U.S.-listed species residing in Mexico, and (2) request guidance regarding how to address U.S.-listed species residing in Mexico that could potentially be affected by the Project (see Attachment B). In a response dated January 11, 2006, the Service concluded that Section 7 consultation was not appropriate to address such potential impacts in Mexico; instead, proceeding under Section 8 of the ESA ("International Cooperation") is the appropriate means to achieve species conservation in foreign nations: "neither section 7 of the ESA, nor the section 7 consultation and analysis process under the ESA's implementing regulations addresses species outside the borders of the United States." The January 11, 2006 transmittal from the Service is attached hereto as Attachment C.

2.2 Approach to Transboundary Effects Analysis in the AAC Final EIS/EIR and this Reexamination

2.2.1 Overview of the Transboundary Effects Analysis in the AAC Final EIS/EIR

The discussion of impacts in Mexico included in the AAC Final EIS/EIR was limited to groundwater impacts, including anticipated deterioration of groundwater quality in the northeastern Mexicali Valley (see, for example, AAC Final EIS/EIR page S-5 and pages III-12 to III-13). The Final Geohydrology Appendix included information received from Mexico. The ROD included a description of Reclamation's consultation with the International

Boundary and Water Commission (IBWC) regarding potential impacts of the Project in Mexico.

2.2.2 Approach to Transboundary Effects in this Reexamination

The statutory provisions of NEPA (and CEQ's regulations implementing NEPA) do not require assessment of environmental impacts within the territory of a foreign country. As a voluntary measure, however, this document includes information on the Project's groundwater and groundwater quality impacts that may affect areas within Mexico solely because of the unique aspects of the Project (including, for example, the approach utilized in the AAC Final EIS/EIR and ROD and applicable provisions of the 1944 Water Treaty and its implementing minutes, such as Point 6 of Minute 242). This reexamination was prepared utilizing the same approach to potential transboundary effects as found in the 1994 AAC Final EIS/EIR and ROD. Accordingly, this reexamination includes a description of groundwater and groundwater quality impacts in Mexico.

In light of the ongoing controversy regarding the AAC Lining Project, it is appropriate to review the relationship of the Project to the 1944 Treaty between the U.S. and Mexico regarding, amount other issues, the utilization of waters of the Colorado River. As stated in the 1994 ROD:

The proposed Project and its effects on the Mexicali Valley fall within the purview of the 1944 Water Treaty (Treaty) between the United States and Mexico. Under Point 6 of Minute 242, of the International Boundary and Water Commission (IBWC), the United States Section of the IBWC (USIBWC), which receives diplomatic guidance from the United States Department of State, initiated a consultation with Mexico regarding the Project in 1990. The United States Government has asserted to the Government of Mexico that the United States reserves the right to recover the waters of the Colorado River reserved to the United States under the 1944 Water Treaty that are conveyed in the All-American Canal. (1994 ROD at page 7.)

The position of the U.S. was recently reiterated in correspondence between the Secretary of the Interior (Secretary) and her counterpart minister in Mexico:

This important project was authorized by Congress in order to conserve Colorado River water reserved to the United States under the 1944 Treaty between our nations regarding, among other provisions, the allotment of the waters of the Colorado River for any and all sources. . . . As these ongoing discussions between our nations are coordinated through the State Department and [the International Boundary and Water Commission], our efforts will continue to reflect our view that the United States does not have an obligation to mitigate for any potential effects in Mexico of lining the All American Canal and that each nation must continue to explore and develop mechanisms to improve the efficient use of the limited water supplies of the Colorado River. (Letter from Secretary Gale A. Norton to Secretary Jose Luis Luege Tamargo, Secretary of Environment and Natural Resources of Mexico, September 13, 2005 at 1-2.)

Nothing in this Supplemental Information Report should be interpreted to conflict with or modify in any manner these formal statements of the position of the U.S. with regard to the AAC Lining Project.

2.3 Summary Result of the Reexamination and Conclusions

This document provides a reexamination and section-by-section analysis of the AAC Final EIS/EIR in light of the renewed interest in the AAC Lining Project and the availability of final design information. The results of this evaluation are summarized in Table 1. Overall, this reexamination concludes that no significant new circumstances or information relevant to any of the environmental concerns addressed in the AAC Final EIS/EIR and bearing on the Project or its impacts have occurred since completion of the document in 1994, and a supplemental EIS/EIR is not required.

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|---------------------------|---|--|
| Purpose & Need | Beginning in 2003, California lost access to about 800,000 acre-feet per year (AFY) of surplus and unused apportionment of Colorado River water. The amended San Luis Rey Indian Water Right Settlement Act and October 2003 execution of the Colorado River Water Delivery Agreement and related agreements provide additional specificity regarding the use of the conserved water. | The purpose and need remain the same, and the conserved water will continue to be used primarily in the Southern California coastal area. Based on unavailability of surplus water since 2003, there is a pressing need to conserve seepage to offset reduced supplies from the Colorado River |
| Alternatives | <p>Range of Alternatives: There is no new information relevant to the range of alternatives. Reclamation is not aware of additional alternatives that meet the purpose and need of the Project.</p> <p>Changes to the Project: Minor design and alignment refinements have been made based on additional engineering detail.</p> | <p>Range of Alternatives: The AAC Final EIS/EIR considered the proper range of alternatives, including the Well Field Alternative, at an equivalent level of detail and analysis.</p> <p>Changes to the Project: The description and analysis was at an appropriate level of detail for the AAC Final EIS/EIR. Minor refinements to the design do not constitute substantial changes relevant to environmental concerns.</p> |
| Permits and Agreements | IID is working with the Corps of Engineers to confirm that the Corps' earlier Clean Water Act Section 404 non-jurisdictional determination is still valid. | A determination of the need for a 404 Permit is still under consideration by the Corps of Engineers. As the construction contractor for the Project, IID will obtain whatever permits are necessary to comply with Section 404 of the Clean Water Act. The possible requirement for a 404 Permit is not significant new information relevant to environmental concerns and bearing on the proposed action. |
| Groundwater | <p>Present groundwater levels in some areas of the AAC are higher than described in the AAC Final EIS/EIR and were considered during final Project design.</p> <p>Additional information on groundwater levels in the Mexicali Valley has become available.</p> | <p>Recent high groundwater elevations near the AAC do not change the Project's impacts.</p> <p>The additional information on groundwater levels in the Mexicali Valley is consistent with the information contained in the AAC Final EIS/EIR.</p> <p>Overall, no significant new circumstances or information relevant to groundwater and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR.</p> |

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|---------------------------|--|---|
| Surface water | The Colorado River has experienced severe drought in recent years. Various Federal and State planning activities are under way to evaluate alternatives for restoration of the Salton Sea. | Change in river flows from the transfer of conserved water was considered in the analysis in the AAC Final EIS/EIR. The recent drought does not change that analysis. No better technical information is available on the potential contribution of AAC seepage to the Salton Sea; as noted in the AAC Final EIS/EIR, it is highly unlikely that the Project would have any measurable effect on the Sea. |
| Water Quality | There is no new information about impacts to surface water or groundwater quality in the U.S. Additional information on groundwater quality in the Mexicali Valley has become available. | There is no new information about impacts to surface water or groundwater quality in the U.S. The additional information on groundwater quality in the Mexicali Valley is consistent with the information contained in the AAC Final EIS/EIR. |
| Air Quality | Since the 1994 Final EIS/EIR, the Imperial County area has been reclassified as “serious” nonattainment for particulate matter less than 10 microns in diameter (PM10). The Imperial County Air Pollution Control District has adopted various rules to control man-made or man-caused sources. The Clean Air Act was amended to require General Conformity Compliance for all Federal or Federally sponsored projects. | The conclusions remain the same as those identified in the AAC Final EIS/EIR—the Project will comply with the rules and regulations in place at the time of construction. An air quality conformity analysis was completed on January 9, 2006, and the Project was found to be in compliance with the Clean Air Act. |
| Wetlands | IID has initiated mitigation actions for wetland impacts. | There is no significant new information on wetland location, amount, composition, or mitigation requirements within the U.S. |
| Terrestrial Habitat | The estimate of disturbance acreage has changed. The total area affected would increase from 1,503 acres to 2,161 acres. The amount of desert scrub and sand dune habitat permanently lost to the new parallel canal footprint would decrease from 751.5 acres to 650 acres. The temporarily disturbed area would increase from 751.5 acres to 1,511 acres. | Neither reduced permanent disturbance nor increased temporary disturbance result in significant new impacts. The AAC Final EIS/EIRs commitments to mitigate for disturbed acreage remain unchanged. |

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|---------------------------|--|--|
| Special Status Species | <p>The Service completed its BCO in 1996, which concluded that the Project is not likely to jeopardize the continued existence of the Yuma clapper rail, razorback sucker, Peirson’s milk-vetch, or flat-tailed horned lizard. Mitigation measures in the BCO were consistent with the AAC Final EIS/EIR and ROD.</p> <p>Listed Species in Mexico—Interested parties have presented new information regarding potential impacts to U.S.-listed species as a result of groundwater declines resulting from implementation of the Project.</p> <p>Southwestern Willow Flycatcher—The southwestern willow flycatcher was Federally listed in 1995 and critical habitat was designated in 2005. The Project area was surveyed for southwestern willow flycatcher in 1999, and no suitable habitat was found.</p> <p>Peirson’s Milk-vetch—Peirson’s milk-vetch was Federally listed in 1998, and critical habitat was designated in 2004. Reclamation requested the confirmation of the Conference Opinion as the Biological Opinion and the Service provided a response on January 10, 2006, which converted the Conference Opinion to a Biological Opinion.</p> <p>Flat-tailed Horned Lizard—The Service proposed the flat-tailed horned lizard for listing as threatened on November 29, 1993. The Service withdrew its proposed listing on January 3, 2003, based in part on protections offered by the Flat-tailed Horned Lizard Rangeland Management Strategy (FTHL RMS). The proposed rule to list the flat-tailed horned lizard as threatened was recently reinstated. A new final listing decision on the proposed rule to list the flat-tailed horned lizard is to be submitted for publication in the Federal Register by April 30, 2006. The FTHL RMS was revised and updated in 2003.</p> <p>Insect Species—Center for Biological Diversity petitioned the Secretary and Service to list 16 insect species in 2004, and has since sued the Service on the subject.</p> <p>Birds of Conservation Concern—The Service released a listing of priority bird species for conservation in 2003.</p> <p>Migratory Bird Treaty Act (MBTA) Compliance— To address MBTA requirements, pre-construction bird surveys have been initiated and will be focused on specific species found present within the construction footprint.</p> <p>Biological Mitigation—IID began implementing the Project’s biological mitigation measures.</p> | <p>Listed Species in Mexico—Reclamation prepared an analysis of potential impacts to U.S.-listed species in Mexico and transmitted it to the Service on November 18, 2005. The Service informed Reclamation that Section 8 of the ESA, not Section 7, is the appropriate means to achieve species conservation in foreign nations.</p> <p>Southwestern Willow Flycatcher—No new or more severe impacts are expected because the riparian habitat along the AAC was found to not be suitable for the southwestern willow flycatcher.</p> <p>Peirson’s Milk-vetch—The Service converted the Conference Opinion to a Biological Opinion by letter dated January 10, 2006.</p> <p>Flat-tailed Horned Lizard—The Project will not affect the management areas identified in the FTHL RMS, and Reclamation will continue to implement the mitigation measures identified in the AAC Final EIS/EIR and BCO.</p> <p>Insect Species—The proposed listing and litigation do not trigger the need for a supplemental EIS or re-consultation under Section 7 of the ESA.</p> <p>Birds of Conservation Concern—This is a management tool for Federal agencies and is not significant new information.</p> <p>Migratory Bird Treaty Act Compliance—Pre-construction surveys have been initiated, and Project clearing and grubbing activities will take place outside of the nesting period. The Service has indicated that there is no permit that it can issue under the MBTA that covers the Project for the incidental take of birds, including loss or disturbance of their habitat that might be caused by construction activities (Service 2005b).</p> <p>Biological Mitigation—Implementation of the biological resource mitigation measures follows the commitments identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS.</p> <p>Overall Conclusion—Reclamation is in compliance with Section 7, and changes since the AAC Final EIS/EIR do not result in new or more severe impacts to special status species.</p> |

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|---------------------------|--|---|
| Large Mammals | Based on survey results for deer in the Project area and the results of an experimental “escape ridge” test section in the Coachella Canal, the commitment to construct large mammal escape ridges has been eliminated. Depending on further results from the deer survey, off-site mitigation may be proposed. | Based on the poor structural integrity of the escape ridges and the lack of large mammals in the Project area, the commitment to construct escape ridges in the concrete lining of the AAC has been eliminated. This change is consistent with the mitigation commitments in the AAC Final EIS/EIR and does not represent a substantial change or new circumstance relevant to large mammal escape and bearing on the Project or its impacts. |
| Canal Fishery | The mitigation measures identified in the AAC Final EIS/EIR have been replaced with off-site mitigation. This change allows for the recreational fishery values lost as a result of the AAC Lining Project to be replaced in an area that has better public access, poses less of a safety hazard, and is designed for recreational activities. | This change to off-site mitigation will compensate for Project impacts, and does not represent a substantial change or new circumstance relevant to the canal fishery and bearing on the Project or its impacts. |
| Cultural Resources | Reclamation, Bureau of Land Management (BLM), IID, and the California State Historic Preservation Office executed a Programmatic Agreement on June 26, 2003 regarding the construction of the AAC Lining Project. IID is implementing the cultural resources mitigation measures identified in the AAC Final EIS/EIR, including Class I, II, and III cultural resource inventories, developing reports of these studies, and assisting with Native American field trips and consultations. | Implementation of the cultural resources stipulations identified in the AAC Final EIS/EIR and Programmatic Agreement is not new information that would require preparation of a supplemental EIS. No significant new circumstances or information relevant to cultural resource concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR. |
| Recreation | An Internal Review Draft of the Recreation and Transportation Management Plan has been prepared and is being reviewed by IID, Reclamation and BLM. The commitment to install artificial reefs in the canal and replace the loss of game fish has been replaced with off-site mitigation (see Canal Fishery discussion). | Implementation of the recreational resources mitigation measures follows the commitments identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS. The Recreation and Transportation Management Plan addresses general safety and is not related to the Project’s NEPA or ESA compliance. |
| Land Ownership and Use | Land ownership within the Project area is the same as was described in the AAC Final EIS/EIR. Construction access areas and the overall construction area are slightly different than described in the AAC Final EIS/EIR, but the Project would continue to be located entirely within the area previously withdrawn for Project purposes. | No significant new circumstances or information relevant to land ownership and use concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR. |

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|-----------------------------|--|--|
| Sand and Gravel Supplies | Two sand and gravel sources have been proposed. Reclamation and IID will continue to monitor the potential for use of other sources that may be identified by a construction contractor. | As identified in the AAC Final EIS/EIR, sand and gravel for the Project would continue to come from established quarry sites in Imperial County. Additional specificity on the sources does not constitute significant new circumstances or information relevant to sand and gravel supplies and bearing on the Project or its impacts. |
| Transportation | Various improvements to Interstate 8 and State Highway 86 have occurred since completion of the AAC Final EIS/EIR, but the overall transportation network remains the same. | No significant new circumstances or information relevant to transportation concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR. |
| Hydroelectric Power | There is no new information on hydroelectric power or hydroelectric energy generation. | No significant new circumstances or information relevant to concerns about hydroelectric energy generation along the AAC and the lower Colorado River and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR. |
| Project Energy Requirements | There is no new information on Project operating and energy requirements. | No significant new circumstances or information relevant to Project energy requirements and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR. |
| Public Safety | Two refinements in the AAC Lining Project may affect public safety in the canal: (1) large mammal escape ridges, which would also facilitate human escape, will not be constructed; and, (2) the side slopes of the newly lined section will be steeper than described in the AAC Final EIS/EIR. | Refinements to the canal design do not result in significant new impacts and do not increase mitigation commitments. The planned spacing for safety ladders under the refined design was reviewed and found to meet Reclamation standards. New hazard signage in English and Spanish will be installed along the new concrete lined canal. |
| Employment and Income | Employment has increased, and unemployment as decreased slightly and is projected to change in the future as a result of the IID Water Conservation and Transfer Project and other market factors. | The changes to employment do not constitute significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts. As noted in the AAC Final EIS/EIR, the Project will create jobs and result in a net economic benefit to the local area. |
| Local Community Structure | Local community structure has changed slightly with overall population increases seen in Imperial County and the incorporated and non-incorporated cities within the county. The overall local community structure is essentially the same as described in the AAC Final EIS/EIR. | No significant new circumstances or information relevant to the local community structure and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR. |

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|---|---|---|
| Immigration From Mexico | Increased focus on immigration and security has occurred since 2001. Reclamation is continuing to work closely with the Border Patrol to address the Border Patrol's surveillance and monitoring needs. The Border Patrol is a cooperating agency and attends Project coordination meetings. | Illegal immigration is not a new issue. During construction of the Project the Border Patrol will continue its visual and electronic surveillance activities along the border. The Border Patrol has been attending the Project coordination meetings, as well as those of the recreation and access planning group, and will advise these groups of their needs during and after the construction phase. Their surveillance needs will be accommodated during and after construction of the Project. |
| Growth Inducement | The California legislature has passed several bills that increase the linkage between the availability of water for urban uses and land use planning. To reduce California's reliance on Colorado River water, the Colorado River Water Delivery Agreement and Quantification Settlement Agreement (QSA) were executed in 2003. | The AAC Lining Project was one of the projects considered in the Implementation Agreement EIS (which provides NEPA compliance for the Colorado River Water Delivery Agreement). The findings of this document is consistent with the AAC Final EIS/EIR conclusion in that the AAC Lining Project would not have growth-inducing effects because (1) the conserved water would be used to offset existing water supply shortages, and (2) the Project will replace water that would have otherwise been purchased from The Metropolitan Water District of Southern California. |
| Indian Trust Assets | Access across Tribal lands will not be needed for construction activities, and no Tribal resources will be affected by the Project. | The Project will not affect Indian trust assets, and no significant new circumstances or information relevant to Indian trust assets and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994. |
| Cumulative Impacts | A number of regulatory actions taken by Reclamation since 1994 were described in various other NEPA and CEQA documents including the Implementation Agreement EIS, the QSA PEIR, Colorado River Interim Surplus Criteria EIS, the Lower Colorado River Multi-Species Conservation Program EIS/EIR, and the IID Water Conservation and Transfer Project EIS/EIR. These documents assumed implementation of the Project in their project-specific and cumulative impact analyses. | Reclamation has included the AAC Lining Project in the project-specific and cumulative impact analysis sections of more recent related environmental compliance documents. None of these documents identified significant new cumulative impacts in association with the AAC Lining Project. |
| Short-term Use vs. Long-term Productivity | IID has begun implementing the cultural and biological resource mitigation measures. | Implementation of the cultural and biological resources mitigation measures follows the commitments identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS. |

TABLE 1
Summary of New Information and Conclusions

| AAC Final EIS/EIR Section | New Information | Conclusion |
|-------------------------------|---|--|
| Irreversible Commitments | There is no new information on irreversible and irretrievable commitments of resources. The commitment of resources remains the same as was described in the AAC Final EIS/EIR. | No significant new circumstances or information relevant to irreversible and irretrievable commitments of resources and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994. |
| Environmental Commitments | An Environmental Commitment Plan was approved on July 8, 2003. This plan summarizes the environmental commitments in the AAC Final EIS/EIR and ROD in a tabular format and allows for modifications of commitments or new commitments to be added by amendment. Modifications of commitments or new commitments are discussed in the various resources sections. An amended Environmental Commitment Plan has not been produced because discussions over amending a number of commitments are continuing. | Although some commitments are in the process of being modified and new commitments will be added, the overall commitment to mitigate impacts that would result from the AAC Lining Project remains. The modified and new commitments do not constitute significant new circumstances or information bearing on the Project or its impacts. |
| Consultation and Coordination | Coordination and consultation is ongoing to fulfill the cultural and biological mitigation measures and as part of the Recreation, Transportation, Access, Border Monitoring Planning process. | Ongoing coordination and consultation follows the commitments identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS. No significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts have been identified in the ongoing coordination and consultation. |
| Indian Sacred Sites | There is no new information on Indian sacred sites. The Tribes have not identified any new sacred sites that meet the criteria in Executive Order 13007 in the Project area. | No significant new circumstances or information relevant to Indian sacred sites and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994. |
| Environmental Justice | There is no new information on environmental justice. As was described in the 1999 reexamination, the Project is located in an isolated desert area with no U.S. minority or low-income communities located near or adjacent to the canal that would be disproportionately affected. | No significant new circumstances or information relevant to environmental justice and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994. |

Reexamination and Analysis

The results of the current reexamination and analysis of the AAC Final EIS/EIR are provided in this section. New information since preparation of the AAC Final EIS/EIR, if any, and a conclusion concerning the significance of the new information is provided for each section of the AAC Final EIS/EIR. As was described in Section 2.1, in evaluating the present-day adequacy of the AAC Final EIS/EIR, the criteria in Section 1502.9(c) of the CEQ regulations were employed to determine: (1) if substantial changes have been made to the Project since completion of the AAC Final EIS/EIR in 1994 that are relevant to environmental concerns; and (2) if there are significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

3.1 Chapter I: Purpose and Need

3.1.1 Information in the AAC Final EIS/EIR

The purpose of the AAC Lining Project is to conserve seepage lost from the unlined AAC. The conserved water is needed in the Southern California coastal area to offset a projected water shortage of 1.2 MAF that is expected by the year 2010. The Metropolitan Water District of Southern California (Metropolitan) “has expressed interest in funding the project in return for use of the conserved water when available. This is the general premise under which the project is being developed” (AAC Final EIS/EIR page S-3).

3.1.2 New Information

3.1.2.1 Reduction of California’s Overuse of Colorado River Water and the Colorado River Water Delivery Agreement

From the late 1950s to 2003, California used Colorado River water in excess of its normal year apportionment of 4.4 MAF. Prior to 1996, California’s demands in excess of 4.4 million acre-feet per year (MAFY) were met solely by diverting unused apportionments of other Lower Division States (Arizona and Nevada) that were made available by the Secretary. From 1996 to 2003, California also utilized surplus water made available by Secretarial determination. At the time the AAC Final EIS/EIR was completed, California was using over 5 MAFY of Colorado River water. Since the completion of the AAC Final EIS/EIR, the Central Arizona Project was completed, and Nevada began to experience significant growth. With both Arizona and Nevada approaching full utilization of their apportionments and declared surpluses of Colorado River water expected to diminish in the future, pressure mounted on California to develop a plan to live within its apportionment of 4.4 MAF in normal years.

In 2002 and 2003, State and Federal policy makers, the California water agencies that use Colorado River water, and the U.S. Department of the Interior began an intensive effort to assist California in reducing its historical overuse of Colorado River water. This effort resulted in a series of agreements, the primary one being the Colorado River Water Delivery

Agreement of 2003 that settled, by consensual agreement, longstanding disputes regarding the priority, use, and transferability of Colorado River water in the State of California. These agreements are collectively intended to reduce California's use of Colorado River water to its 4.4 MAF apportionment in a normal year. The AAC Lining Project was included as a critical component of the water conservation efforts memorialized in these agreements.

The Colorado River Water Delivery Agreement and the Allocation Agreement³, both executed on October 10, 2003, divide the 67,700 AF of water conserved by the Project as follows: 56,200 AF to the San Diego County Water Authority (SDCWA), a member agency of Metropolitan, (and/or IID under certain circumstances), and 11,500 AF for the San Luis Rey Settlement parties. As described in Section 1, these agreements, settled, by consensual agreement, longstanding disputes regarding the priority, use, and transferability of Colorado River water in the State of California. Prior to mid-2003 and the final negotiations of these agreements, Metropolitan was anticipated to receive the 56,200 AF share of the conserved water. The Allocation Agreement, however, reallocates Metropolitan's share to SDCWA (which is within Metropolitan's service area), and specifies circumstances under which Metropolitan can take delivery of any unused water. This reallocation does not affect IID's right to take delivery of the 56,200 AF of conserved water under specified shortage circumstances.

Beginning in 2003, California has lost access to about 800,000 AFY of surplus and unused apportionment of Colorado River water due to the need to limit its diversions to 4.4 MAFY. Most of the shortfall has been borne by the Southern California coastal area served by Metropolitan (due to its junior priority for Colorado River water; see Table 2). In light of this reduced supply, the need for the AAC Lining Project is perhaps even more pressing than predicted at the time of the 1994 ROD. Water lost to seepage from the AAC is counted against California's apportionment and, specifically, is accounted for as part of IID's and CVWD's Colorado River water use. Per the Allocation Agreement, the water conserved by lining the canal shall be accounted for as Priority 3(a) and Priority 6(a) in proportion to the respective priorities associated with the total amount of water flowing in the AAC past Pilot Knob in that calendar year. Conservation of the AAC seepage will assist California in living within its legal normal year apportionment of Colorado River water.

3.1.2.2 San Luis Rey Indian Water Rights Settlement Act

The October 2000 amendment to the San Luis Rey Settlement Act (Public Law 100-675) specified that 16,000 AFY for the settlement would come from the projects authorized under Title II to Public Law 100-675 (the lining of the All-American and Coachella canals). The San Luis Rey Settlement Act authorizes a source of water to settle the water right claims of the La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians; the City of Escondido; the Escondido Mutual Water Company (which no longer exists – the City of

³ The full title of the Allocation Agreement is "Allocation Agreement among the United States of America, The Metropolitan Water District of Southern California, Coachella Valley Water District, Imperial Irrigation District, San Diego County Water Authority, the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, the City of Escondido and Vista Irrigation District." The Allocation Agreement was executed on October 10, 2003. The Allocation Agreement may need to be amended to reflect the provisions of the final Funding and Construction Agreement.

TABLE 2
 Priorities and Quantities of California's Contracts for Colorado River Water Reflected in 1931 Regulation Promulgated by the Secretary of the Interior

| Priority | Description | Annual Amount (acre-feet) |
|--|---|-------------------------------------|
| 1 | Palo Verde Irrigation District (104,500 acres) | |
| 2 | Yuma Project (Reservation Division) (25,000 acres) | 3,850,000 |
| 3(a) | Imperial Irrigation District and Coachella Valley County Water District | (Priorities 1, 2, 3(a) and 3(b)) |
| 3(b) | Palo Verde Irrigation District (16,000 acres of mesa lands) | |
| 4 | Metropolitan Water District of Southern California | 550,000 |
| Sub-total: Priorities 1-4 ("Normal Year Apportionment") | | 4,400,000 |
| 5(a) | Metropolitan Water District of Southern California | 550,000 |
| 5(b) | City and/or County of San Diego (Note: San Diego's contract has been merged with Metropolitan's contract) | 112,000 |
| 6(a) | Imperial Irrigation District and Coachella Valley County Water District | 300,000 |
| 6(b) | Palo Verde Irrigation District (additional 16,000 acres of mesa lands) | (Priorities 6(a) and 6(b)) |
| Total: Priorities 1-6(b) | | 5,362,000 |

Escondido is the successor in interest to the Escondido Mutual Water Company); and the Vista Irrigation District. These entities are collectively referred to as the San Luis Rey Settlement parties. The San Luis Rey Settlement parties are located in the Southern California coastal area (San Diego County). The City of Escondido and Vista Irrigation District are also located within the Metropolitan and SDCWA service areas.

3.1.3 Conclusion

The purpose and need for the Project remain the same – to conserve water that is charged to California's Colorado River apportionment, but is unavailable for beneficial use because it is lost to seepage. Conservation of seepage will allow the water to be put to beneficial use in the Southern California coastal area. The AAC Final EIS/EIR was prepared under the general premise that the conserved water would be used in the Southern California coastal area. Because the San Luis Rey Settlement parties and the SDCWA service area are located within the Southern California coastal area contemplated by the AAC Final EIS/EIR, the clarification found in the Colorado River Water Delivery Agreement and the Allocation Agreement regarding the specific users of the conserved water does not result in any substantial changes in the Project, nor does it constitute significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts. The water will continue to be used primarily in the Southern California coastal area (except under specified shortage conditions when IID takes delivery of the water), and the vast majority of the water will continue to be used within the Metropolitan service area (note

that some of the San Luis Rey Settlement parties are located outside of the Metropolitan service area, but are within the Southern California coastal area).

3.2 Chapter II: Alternatives

3.2.1 Range of Alternatives

3.2.1.1 Information in the AAC Final EIS/EIR

The AAC Final EIS/EIR analyzed four action alternatives, which included mitigation measures to compensate for potential impacts on fish and wildlife habitat and the No Action Alternative as described below:

- The Parallel Canal Alternative proposed the construction of a new concrete-lined canal parallel to 23 miles of the earthen AAC. It would begin approximately 1 mile west of Pilot Knob and end at Drop 3. The Parallel Canal Alternative was identified as the agencies' preferred alternative in the AAC Final EIS/EIR and ROD.
- The Drop 3 Alternative proposed the construction of in-place underwater lining from Pilot Knob to Drop 3.
- The Drop 4 Alternative proposed the construction of in-place underwater lining from Pilot Knob to Drop 4.
- The Well Field Alternative proposed drilling wells and pumping water back into the existing canal between Pilot Knob and Drop 2.
- The No Action Alternative proposed allowing the canal to remain unlined and the current seepage loss to continue.

Each alternative was discussed in the ROD in terms of their positive and negative impacts on the environment. All of the action alternatives are viable alternatives given the implementation of the proposed mitigation measures. The Parallel Canal Alternative was selected for implementation in the ROD.

3.2.1.2 New Information

No new alternatives have been identified since issuance of the AAC Final EIS/EIR and ROD.

Reclamation is aware of increased recent interest in the previously analyzed and considered Well Field Alternative by non-governmental organizations. The Well Field Alternative was fully considered as a viable alternative in the AAC Final EIS/EIR. The description of this alternative is found on pages II-14 to II-16, and its impacts are described in each of the resource sections. In addition, the engineering appendix to the AAC Final EIS/EIR contains itemized cost estimates for the Well Field Alternative, including operation, maintenance, replacement, and power costs, as well as the calculations used to determine the unit cost of the conserved water. The ROD for the Project noted that the Well Field Alternative was the environmentally preferred alternative and would produce the conserved water at the lowest cost. The ROD states that "however, it was not selected because of international concerns

related to pumping from a transboundary groundwater aquifer⁴ (Reclamation 1994b, page 3). These international groundwater issues are still present.

Public Law 100-675, which authorizes the AAC Lining Project, in Section 203(a)(1) specifically limits the types of alternatives to reduce seepage water for the Project to the following: “construct a new lined canal or to line the previously unlined portions of the All American Canal from the vicinity of Pilot Knob to Drop 4 and its Coachella Canal Branch from Siphon 7 to 32, or construct seepage recovery facilities in the vicinity of Pilot Knob to Drop 4, including measures to protect public safety.” No other new alternatives that are consistent with the purpose and need of the Project and the authorization contained in Public Law 100-675 have been proposed.

3.2.1.3 Conclusion

There are no changes in the range of the alternatives that have relevance to environmental concerns, nor are any substantial changes in the range of alternatives expected to occur prior to the completion of the Project. Reclamation is not aware of any new alternatives that are consistent with the purpose and need of the Project and the authorization contained in Public Law 100-675. There are no significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

3.2.2 Changes to Proposed Action

3.2.2.1 Information in the AAC Final EIS/EIR

The Parallel Canal Alternative includes construction of a parallel canal from 1 mile west of Pilot Knob to Drop 3, a distance of 23 miles. The centerline of the new canal would be offset from the centerline of the original canal by a distance of 300 to 600 feet, depending on terrain, ease of construction, and location of existing structures. The new canal would have a 50-foot bottom width, 120-foot top width, a depth of 23.1 feet, and side slopes of 1-1/2 horizontal to 1 vertical. The AAC Final EIS/EIR noted that “final design studies may produce slightly different canal cross sections” (page II-2).

3.2.2.2 New Information

Current design specifications (Proof Set Design) for the Parallel Canal Alternative include the following proposed refinements (canal reaches are shown in Figure 3) (IID 2006):

- The new canal will have a 50-foot bottom width with side slopes of 1 3/4 horizontal to 1 vertical in Reaches 1 and 2, and 2 horizontal to 1 vertical in Reach 3.
- The centerline of the new canal will vary in distance from the existing canal. In Reach 1A, between Pilot Knob to the Interstate 8 bridge (north side), the offset may be up to

⁴ International Boundary and Water Commission, United States Section Commissioner Narendra N. Gunaji had advised Reclamation early on of the serious implications of the Well Field Alternative. In a letter to the Reclamation Regional Director, Edward Hallenbeck, received February 24, 1989, he wrote: "Lining of the All-American Canal or construction of a new lined canal is the preferred option from an international perspective. The pumping option poses serious international implications. First, it would be extremely difficult to present a convincing case, that only All-American Canal seepage water would be withdrawn by the pumps and that groundwater was not being withdrawn from Mexico. Second, it would be difficult to convince Mexico that no additional pumps would be added once the initial pumping system is installed. One advantage of the lining option is that once it is done, it is done." (International Boundary and Water Commission, United States Section 1989.)

850 feet. In Reaches 1B, 2, and 3, the distance from existing centerline to new centerline will be between 300 feet and 600 feet, depending on terrain, as originally described in the AAC Final EIS/EIR. The refined footprint is entirely within the Federal land previously withdrawn from the public domain for irrigation development in the Imperial Valley and for construction of the AAC.

- The construction zone of the new canal will be wider than was evaluated in the Final AAC EIS/EIR. The wider construction zone is needed to accommodate a larger spoils footprint. The construction zone in Reach 1A (low sand dune habitat) now varies in width from about 825 feet to about 1,275 feet. The construction zone at the beginning of Reach 1B is now 900 feet wide for 2/3 mile, while the remainder of the Reach 1B construction zone varies from about 225 feet to about 900 feet depending on local conditions. The construction zone in Reaches 2 and 3 is about 450 feet wide. Excavated material in the spoil embankments comprises 77 percent (1,160 acres) of the temporary disturbed area. Spoils embankment amounts are as follows: Reach 1A accounts for 47.5 percent (551 acres), Reach 1B accounts for 29 percent (335 acres), Reach 2 accounts for 10.5 percent (122 acres), and Reach 3 accounts for 13 percent (152 acres). The remaining 23 percent (351 acres) of the temporary disturbed total is related to other construction uses and the Reach 2 reservoir (see below, between Drop 1 and 2 in Reach 2, a portion of existing canal will be adapted for use as a new off-line storage reservoir).
- In Reach 1B (north side), south of the Interstate 8 bridge (first one quarter), the new canal will utilize a portion of the existing canal for the embankment to reduce disturbance of dune habitat and plant species and reduce costs of excavation. Standard concrete lining of the new canal will end and begin on either side of the Interstate 8 bridge. Other approaches for lining the existing canal section under the Interstate 8 bridge are under review.
- In Reach 1B (north side), the second quarter of the new canal will move northward into an inter-dune flat area and not utilize any portion of the existing canal. This northward shift will be within the 300 to 600 foot offset from centerline originally described in the AAC Final EIS/EIR. This shift will allow easier excavation, the disposal of and placement of excavated spoils, and a reduction in construction site dewatering.
- In Reach 1B near the mid-point, the new canal will cross the existing canal on the south side of Interstate 8 to utilize inter-dune flats and existing disturbed areas. It will continue westward out of the inter-dune area to Drop 1, avoiding the Coachella Canal turnout located adjacent to and upstream of Drop 1. This alignment will avoid the high dune habitat that would have caused extensive excavation costs and disturbance of the dune habitat and plant species. A small portion of flat-tailed horned lizard habitat in the East Mesa Management Area also will be avoided.
- West of the Drop 1/Coachella Canal Turnout Structure, Reach 2 will begin downstream of the existing Interstate 8 bridge, and the new canal construction will again utilize a portion of the existing canal embankment. As the new canal proceeds westward toward Drop 2 and as construction space allows, the new canal alignment will diverge away from the existing AAC in a southerly direction and will not use a portion of the existing canal embankment.

- Between Drop 1 and 2 in Reach 2, a portion of existing canal will be adapted and utilized as a new off-line storage reservoir. Use of the existing canal in case of an emergency was envisioned in the AAC Final EIS/EIR. (It should be noted that this new off-line reservoir is separate and distinct from the Drop 2 Reservoir Project.)
- Pursuant to the final Funding and Construction Agreement, funding for Reach 3 may be provided by another Colorado River water contractor within California, and the lining of this reach may be deferred.

3.2.2.3 Conclusion

The description of the alternatives in the AAC Final EIS/EIR was at a level of detail appropriate for analysis of the environmental impacts. As final designs were developed, additional engineering detail was developed to accommodate local conditions. Minor refinements to the design do not constitute substantial changes or significant new circumstances relevant to environmental concerns or environmental impacts.

3.2.3 Permits and Agreements

3.2.3.1 Information in the AAC Final EIS/EIR

The AAC Final EIS/EIR contained a statement on permits and agreements for each alternative. With respect to Clean Water Act Section 404 Permit, the Final EIS/EIR stated the U.S. Army Corps of Engineers (Corps of Engineers) has considered the Project and decided not to exercise its authority for the Project. No 404 Permit would be required. The Corps of Engineers August 20, 1991 letter of comment on the AAC Draft EIS/EIR confirmed this position, and stated “the proposed project is not subject to our jurisdiction under Section 404 of the Clean Water Act” (see Appendix F, Letter No. 7 in the AAC Final EIS/EIR).

3.2.3.2 New Information

By letter to the Corp of Engineers dated August 10, 2005, IID sought to confirm that the earlier determination that the Project did not need a 404 Permit was still valid. The Corps of Engineers responded to IID by letter dated September 9, 2005, and sought more information about the Project in order to make a determination.

3.2.3.3 Conclusion

A determination of the need for a 404 Permit is still under consideration by the Corps of Engineers. As the construction contractor for the Project, IID will obtain whatever permits are necessary to comply with Section 404 of the Clean Water Act. IID is working with the Corps of Engineers to obtain a determination. The possible requirement for a 404 Permit is not significant new information relevant to environmental concerns and bearing on the proposed action. The possible change in the Corps of Engineers’ position is not a result of new or greater Project impacts, but rather a change in policy determination by the Corps of Engineers. IID will ascertain whether a permit is required, and Reclamation will insure that IID obtains the permit as needed.

3.3 Chapter III: Affected Environment and Environmental Consequences

3.3.1 Groundwater

3.3.1.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC Final EIS/EIR and Geohydrology Appendix provided a description of the aquifer that underlies the AAC, including water table elevations and contribution from the AAC seepage to the aquifer. The AAC Final EIS/EIR addressed groundwater in the Mexicali Valley and estimated that 90 percent of the seepage from the AAC from Pilot Knob to Drop 4 flows toward Mexico and that the remaining 10 percent flows north toward the East Mesa.

Impacts. As described in the AAC Final EIS/EIR, the Project would reduce seepage from the AAC by 67,700 AFY, about a 10 to 12 percent reduction in recharge to the aquifer. As a result, the groundwater ridge under the canal would decline to below pre-canal levels assuming continued levels of groundwater pumping in the Mexicali Valley. Overall, the Project would reduce one of the sources of water for groundwater wells in a portion of the Mexicali Valley. With continued groundwater pumping in the Mexicali Valley, the 1994 AAC Final EIS/EIR projected that groundwater under about 70 square miles of the northeastern portion of the Valley would decline by depths ranging between 1 to 30 feet over a period of 50 years.

3.3.1.2 New Information

Recent groundwater levels near the AAC between Pilot Knob and Drop 1, especially between Pilot Knob and the Sand Hills, are higher than the 1983 and 1986 groundwater levels reported in the Geohydrology Appendix. These levels do not change any environmental impact, but were considered during final Project design. The recent high groundwater levels near the AAC east of Drop 1 may be caused by excess surface water recently available to Mexico and the resultant reduced pumping in the northeast Mexicali Valley. The higher groundwater levels under the canal are expected to be temporary.

The AAC Final EIS/EIR addressed groundwater in the Mexicali Valley. Additional groundwater level information has become available, including two reports in April and June 2005 by the National Water Commission of Mexico (National Water Commission of Mexico 2005a and 2005b). The April 2005 report contains some new information, but is largely a repetition of the January 1991 study by the National Water Commission, which was included in the AAC Final EIS/EIR (National Water Commission of Mexico 1991). The June 2005 report contains groundwater levels for 1994 and/or 2004 for about 32 wells in the northeastern Mexicali Valley and the Andrade Mesa areas. Additional information on the potential impact of groundwater declines on habitat for U.S.-listed species in the northeastern Mexicali Valley is presented in Attachment B (see also information contained at Section 3.3.7).

3.3.1.3 Conclusion

As described above, recently higher groundwater levels near the AAC would not change any environmental impact. Therefore, the recent high groundwater levels near the AAC are not significant new circumstances or information relevant to groundwater concerns and bearing on the Project or its impacts.

New information on groundwater levels in the Mexicali Valley is similar to the information and analysis contained in the AAC Final EIS/EIR. This new information does not modify the projected groundwater flow pattern changes that would result from the Canal Lining Project. There is nothing in the data that would change the projected groundwater declines resulting from the Project from those described in the AAC Final EIS/EIR. Therefore, these two new reports do not constitute significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

3.3.2 Surface Water

3.3.2.1 Information in the AAC Final EIS/EIR

Environmental Setting. Surface water characteristics for the AAC, Colorado River, and Salton Sea were provided in the AAC Final EIS/EIR. The AAC Final EIS/EIR also provided design capacity and operational information for the AAC, along with operational information for the Colorado River.

Impacts. As described in the AAC Final EIS/EIR, the Project would increase the usable water supply from the Colorado River, but would decrease the amount of water diverted into the AAC. In turn, Colorado River flows would decrease downstream of Parker Dam because the conserved water would be diverted further upstream at Lake Havasu, which is formed by Parker Dam, instead of Imperial Dam, where the AAC diversion begins. The Parallel Canal Alternative would decrease the volume of water between Parker and Imperial Dams by 67,700 AF per year. This decreased flows between Parker and Imperial Dams would be about 94 cubic feet per second, or less than 2 percent of the River's average monthly flow (average monthly flow during the spring summer, and fall varies from 9,000 to 11,000 cubic feet per second, averages about 5,000 cubic feet per second in the winter months). The upstream diversion would reduce backwater areas along the Colorado River by approximately 4.5 acres, or about 0.1 percent.

Regarding to the Salton Sea, the AAC Final EIS/EIR noted that less than 5 percent of the annual seepage from Pilot Knob to Drop 3 (the section to be lined) flows toward the East Mesa. No seepage flows are estimated to enter the Sea directly through the subsurface due to low hydraulic conductivity between the East Mesa and the Sea. Some seepage water may be intercepted by drains in the IID service area, and may reach the Sea, but the amount of this intercepted seepage that reaches the Sea is insignificant.

3.3.2.2 New Information

Colorado River and All-American Canal. After execution of the ROD, the Colorado River experienced a few years of high flow conditions. Beginning in 1999, however, the Colorado River Basin experienced the worst five-year drought period in recorded history and what may have been the worst five-year drought in the past five centuries. As a result, the

reservoir system declined from a nearly full status in 1999 to approximately 53 percent of capacity in the spring of 2005.

Runoff in the Upper Colorado River Basin in the spring of 2005 was slightly above average; there was also very high runoff in the Lower Basin (although most of the Colorado River mainstem runoff is produced in the mountainous areas in the Upper Basin). This one year of above average runoff, however, does not mean that the drought has ended. In past drought cycles, there have been isolated years of average or above average runoff. As of September 30, 2005, Lake Powell was at about 49 percent of capacity, and Lake Mead was at 59 percent of capacity. If "average" runoff persists through next year, Lake Powell and Lake Mead are projected to have nearly identical contents on September 30, 2006, with overall system storage projected to be only 61 percent at that time (Reclamation 2005b).

A variety of resource and water management actions have occurred since the preparation of the AAC Final EIS/EIR. These agreements and the cumulative impact of these agreements in combination with the Project are addressed in Section 3.4, Cumulative Impacts.

Salton Sea. In 1998, Congress passed the Salton Sea Reclamation Act of 1998 (Public Law 105-372). The Act directed the Secretary, through Reclamation, to study options for managing the salinity and elevation of the Sea to preserve fish and wildlife health, and to enhance opportunities for recreation use and economic development while continuing the Sea's use as a reservoir for irrigation drainage. Reclamation, in conjunction with the Salton Sea Authority, released a Draft EIS/EIR for the Salton Sea Restoration Project in January 2000 (Reclamation and Salton Sea Authority 2000). This completed report met the requirements of Public Law 105-372.

The California Legislature passed the Salton Sea Restoration Act in 2003 as part of the Quantification Settlement Agreement (QSA) implementing legislation (Senate Bill 277, Ducheny). This Act states that "it is the intent of the Legislature that the State of California undertake the restoration of the Salton Sea ecosystem and the permanent protection of the wildlife dependent on that ecosystem." The Act directs the Secretary for Resources to submit a plan and programmatic EIR for restoration of the Salton Sea to the State Legislature on or before December 31, 2006. This study is in progress.

Public Law 108-361, signed in 2004, directs the Secretary, in coordination with the State of California and the Salton Sea Authority, to prepare a feasibility study on a preferred alternative for Salton Sea restoration. This study is also in progress.

3.3.2.3 Conclusion

Colorado River and All-American Canal. Change in river flows from the transfer of conserved water was considered in the analysis in the AAC Final EIS/EIR. The recent drought does not change that analysis. The drought conditions do not represent significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

Salton Sea. The AAC Lining Project was included as a cumulative project in the 2000 Salton Sea Restoration Project Draft EIS/EIR. The 2000 Salton Sea Restoration Project Draft EIS/EIR addressed cumulative surface water (and groundwater) impacts at a broad level and assumed a cumulative reduction in inflow to the Salton Sea in the future from all of the

cumulative projects (i.e., the reduction from each individual project was not quantified). Both the State study and the Federal Feasibility Study noted above are underway and there is no better technical information relative to a potential reduction in Salton Sea inflows as a result of the Project (see paragraph below for additional information). However, as previously described in the AAC Final EIS/EIR, it is highly unlikely that the Project will result in any measurable impact to the Salton Sea because only 5 percent of the water lost to seepage flows northward towards the East Mesa area and because of the poor hydrologic connectivity between the East Mesa and the Salton Sea. Overall, there are no significant new circumstances or better information relevant to environmental concerns and bearing on the Project or its impacts.

It is noted that the Salton Sea Authority commissioned a 1999 study of the effects of lining the All-American and Coachella Canals on the Salton Sea and adjacent wetlands (Tetra Tech 1999). That study involved a groundwater model analysis to determine the reduction in inflow to the Salton Sea from lining the canals. The results of that study produced a range of values bordering on insignificance. Reviews of the study and modeling analysis raised questions regarding the input to the model and model calibration (Metropolitan 2000). For example, as part of the calibration procedure, groundwater levels along the model's southern boundary in the Mexicali Valley were raised from actual levels by as much as 20 feet. In addition, the study adopted a subsurface inflow value of 8,000 AFY under existing conditions, whereas Reclamation and the U.S. Geological Survey (and the study's peer review panel) concluded that subsurface inflow to the Salton Sea along its east shore is practically zero. Consequently, Reclamation did not rely on the Study's projected inflow conclusions in preparing this Supplemental Information Report.

3.3.3 Water Quality

3.3.3.1 Information in the AAC Final EIS/EIR

Environmental Setting. Water quality characteristics for the AAC and Colorado River were provided in the AAC Final EIS/EIR. The AAC Final EIS/EIR included a discussion of groundwater quality below the AAC. Additionally, a discussion of surface and groundwater quality in Mexico was also provided.

Impacts. The AAC Final EIS/EIR included a description of construction-related, temporary water quality impacts along with long-term impacts to water quality. As described in the AAC Final EIS/EIR, the Project would not result in significant impacts to water quality in the AAC or the Colorado River. However, temporary, insignificant impacts would occur during construction.

Impacts to groundwater quality in Mexico were based on information provided by the National Water Commission of Mexico and the IBWC (such as the Harshbarger study of 1977). As described in the AAC Final EIS/EIR, surface water quality in the Mesa Drain and groundwater quality in the northeastern portion of the Mexicali Valley is expected to deteriorate, and, specifically, salinity in both the Mesa Drain and groundwater in the northeastern portion of the valley is expected to increase due to the Lining Project.

3.3.3.2 New Information

There is no new information about Project impacts to surface water or groundwater quality in the U.S.

There is no new information on surface water quality in Mexico. Some additional information has become available on groundwater salinity in the Mexicali Valley, including an April 2005 study by the National Water Commission and a presentation by the Mexican Delegation to the All-American Canal Meeting of April 2005 (Mexican Delegation 2005). The April 2005 study by the National Water Commission included salinity measurements taken from about 1960 to 1991 or 1992 for 18 wells in northeastern Mexicali Valley. The report provides only approximate locations of the wells by showing their positions on a map. No information is provided as to how sampling was conducted or from what depth samples were taken (National Water Commission of Mexico 2005b). The presentation by the Mexican Delegation included current groundwater salinity in the Mexicali Valley and projected future groundwater salinity both with and without the Project.

3.3.3.3 Conclusion

Overall, no significant new circumstances or information relevant to surface water or groundwater quality concerns and bearing on the Project or its impacts in the U.S. have occurred since completion of the AAC Final EIS/EIR in 1994.

New information on groundwater salinity levels in the Mexicali Valley is consistent with other data sources on groundwater salinity levels in the area, and specifically, consistent with the Harshbarger study of 1977, which was considered in the preparation of the AAC Final EIS/EIR (Harshbarger 1977). Use of the new information would not result in changed or greater effects than those discussed in the AAC Final EIS/EIR. Overall, no significant new circumstances or information relevant to groundwater salinity concerns and bearing on the Project or its impacts in Mexico have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.4 Air Quality

3.3.4.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC Final EIS/EIR identified that the Project area was located in a nonattainment area for ozone and particulates.

Impacts. The AAC Final EIS/EIR identified temporary impacts to air quality as a result of construction activities and included commitments to comply with applicable regulations of the Imperial County Air Pollution Control District (ICAPCD).

3.3.4.2 New Information

The following section presents a brief overview of the regulatory history and status of air quality that is relevant to the Project area, including new information since the AAC Final EIS/EIR was completed.

History and Status of Air Quality Regulations in the Project Area. California is divided geographically into 15 air basins and 58 counties. Originally, the Project area was located in the Southeast Desert Air Basin. In May 1996, the California Air Resources Board (CARB)

adopted changes to the air basin boundaries that split the former Southeast Desert Air Basin into the Mojave Desert Air Basin and Salton Sea Air Basin. As a result of this revision the Project area is now located within the Salton Sea Air Basin and more specifically within an area known as the Imperial Valley Planning Area. The ICAPCD is the agency responsible for regulating, monitoring, and reporting on air resources for the Imperial Valley Planning Area.

PM10 Classification. In accordance with the 1990 Amendment to the Clean Air Act (CAA), the Imperial Valley Planning Area was classified as a moderate nonattainment area for particulate matter less than 10 microns in diameter (PM10). This remained the designation for the Project during completion of the Draft and Final EIS/EIR. On October 10, 1994 the ICAPCD adopted Rule 800, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) (revised on November 25, 1996 and November 8, 2005; ICAPCD 2005a).

On October 19, 2001, the Environmental Protection Agency (EPA) issued a final rule which found that Imperial Valley would have attained the PM10 National Ambient Air Quality Standards (NAAQS) by December 31, 1994 but for PM10 emissions emanating from Mexico (66 FR 53106). The Sierra Club petitioned for review of the EPA final rule in the U.S. Court of Appeals for the Ninth Circuit. On October 9, 2003, the Court issued its opinion (*Sierra Club v. United States Environmental Protection Agency, et al.*, 352 F.3d 1186), which vacated the EPA rule and directed EPA to reclassify the Imperial Valley Planning Area as a serious PM10 nonattainment area. The U. S. Supreme Court declined to hear an appeal on the matter filed by the ICAPCD as an intervenor (*Imperial County Air Pollution Control District v. Sierra Club, et al.*, 542 U.S. 919). Pursuant to the Ninth Circuit Court decision and Section 188(b)(2) of the CAA, EPA reclassified the Imperial Valley from a moderate to a serious PM10 nonattainment area on August 11, 2004 (69 FR 48792). In addition, EPA published a proposed rule under the CAA stating that the Imperial Valley Planning Area failed to attain the NAAQS for PM10 for serious nonattainment by December 31, 2001 (69 FR 48835).

In response to reclassification of Imperial Valley as a serious PM10 nonattainment area and in accordance with the CAA Section 189(d), the ICAPCD recently adopted a revision to its Rule 800 (General Requirements for Control of Fine Particulate Matter [PM-10]) and the rules listed in Table 3 to implement more stringent requirements and provisions to reduce PM10 emissions resulting from man-made or man-caused sources.

TABLE 3
ICAPCD Adopted Rules to Reduce PM10 Emissions

| | |
|--------------------------------------|--|
| Rule 801—Construction and Demolition | Rule 804—Open Areas |
| Rule 802—Bulk Materials | Rule 805—Paved and Unpaved Roads |
| Rule 803—Carry-out and Track-out | Rule 806—Conservation Management Practices |

Source: ICAPCD 2005a

These rules require owners and operators of construction sites to implement Best Available Control Measures, such those listed in Table 4, to limit visible dust emissions to 20 percent and to prepare a Dust Control Plan. Dust Control Plans will contain information specified under Section F.2 of Rule 801 and will be submitted by IID to the Air Pollution Control Officer for approval prior to initiation of construction activities. Further requirements that

may be applicable to the AAC Lining Project are laid out for the handling, storage, and transport of bulk materials (Rule 802); carry-out and tracking out materials that could generate PM10 emissions (Rule 803); stabilization of unused open areas (Rule 804); and treatment of paved and unpaved roads (Rule 805). The ICAPCD approved revisions to Rule 800 on November 8, 2005. New sources and activities will need to comply with the revised regulations; existing sources and activities will have 90 days to comply.

For “temporary” construction activities, CAA compliance is achieved through compliance with the applicable rules and regulations of the ICAPCD.

TABLE 4
Construction Related Activity/Operation and Related Best Available Control Measures and Methods

| Construction Related Activity/Operation | Best Available Control Measures and Method | ICAPCD Regulatory Reference |
|---|---|-------------------------------------|
| Construction Demolition (Earth-moving) | Watering: Sites will be pre-watered prior to and during activity to limit visible dust emissions (VDE) to 20 percent opacity. | Rule 801 F.1.a.1 F.1.b.1 |
| | Chemical Stabilization: Chemical stabilizers will be applied in accordance with product specifications to limit VDE to 20 percent opacity. | Rule 801 F.1.b.1 |
| | Wind barriers: Barriers will be constructed, as needed to limit VDE to 20 percent opacity. | Rule 801 F.1.b.2 |
| | Other: Work will be phased to reduce amount of disturbed are at any one time. | Rule 801 F.1.a.2 |
| Bulk Materials | Watering: Bulk materials will be sprayed with water prior to handling and/or at points of transfer. | Rule 802 F.1.a |
| | Chemical Stabilization: In lieu of water, chemical stabilizers may be applied prior to handling or transfer. | Rule 802 F.1.b |
| | Wind barriers: In lieu of water or chemical stabilization, operations may be protected from wind erosion by sheltering or enclosing operations during handing or transfer of materials. | Rule 802 F.1.c |
| | Bulk materials stored outdoors will be covered by tarps or other suitable materials and anchored to prevent the cover from being removed by wind. Alternately, materials stored outdoors may be enclosed by barriers with less than 50 percent porosity and watered or stabilized with chemicals. A 3-sided structure, at least as high as the storage pile and less than 50 percent porosity, may also be used in lieu of tarps. | F.2.a F.2.b F.2.c |
| | Other: Haul trucks will be completely covered or enclosed. Further, haul trucks must be constructed and maintained in manner that no spillage or loss of material can occur and cleaned or washed at the delivery site after removal of bulk material. | Rule 802 F.3.a F.3.c F.3.d |

TABLE 4
Construction Related Activity/Operation and Related Best Available Control Measures and Methods

| Construction Related Activity/Operation | Best Available Control Measures and Method | ICAPCD Regulatory Reference |
|--|--|--|
| Carry-Out & Track-Out | Clean-up: Each workday any bulk material tracked or carried out onto a paved road will be cleaned up. | Rule 803 F.1.a |
| | All project sites with an average of 150 or more vehicle trips per day, or an average of 20 or more by vehicles with three or more axles, will install Track-Out prevention devices (rumble plates, etc.) where unpaved traffic surfaces adjoin paved roads. Alternately chemical stabilization of gravel may be applied at these sites. | F.1.b F.1.c |
| Unpaved Roads and Traffic Areas | Watering: Unpaved roads and traffic areas will be watered one or more times daily. | Rule 805 F.1.d F.3.d |
| | Chemical Stabilization: Chemical stabilizers may be applied. | Rule 805 F.1.b F.3.b |
| | Surfacing: Unpaved roads and surfaces may be graveled or surfaced with other approved materials. | Rule 805 F.1.c F.3.c |
| Open Inactive Areas If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with conditions for a stabilized surfaces area. | Watering: Water will be applied in manner sufficient to comply with the conditions of a stabilized surface, as specified in Rule 800 paragraphs C.29.a through C.29.f. | Rule 801 F.1.c.2 Rule 804 F.1.a |
| | Chemical Stabilization: Chemical stabilizers may be applied in accordance with product specifications manner sufficient to comply with the conditions of a stabilized surface, as specified in Rule 800 paragraphs C.29.a through C.29.f. | Rule 801 F.1.c.2 Rule 804 F.1.a |
| | Vegetation: Establish vegetation on previously disturbed areas. | Rule 804 F.1.b |
| | Other: Vehicle access will be restricted in open areas during periods of inactivity. | Rule 801 F.1.c.1 804 F.1.c |
| | Gravel may be applied and maintained. | |

Source: ICAPCD 2005a

Stationary Sources. In addition to the regulatory requirements outlined above, some Project-related “stationary” activities, such as concrete batch plants, will require air quality permits. The ICAPCD has indicated that the concrete batch plants are considered a “temporary” stationary source and will require review under Rule 207, New and Modified Stationary Source Review, and compliance with the established permitting process (personal communication, Romero 2005). New Source Performance Standards that are applicable to Project activities are 40 CFR Part 60, Subpart F; Standards of Performance for Portland Cement Plants, adopted by ICAPCD under Rule 1101 on September 14, 1999.

Conformity Analysis. Since the Project occurs within an area that does not meet NAAQS for PM10 and ozone, the Federal action must comply with Section 176 (c) of the Clean Air Act and ICAPCD Rule 925 – General Conformity. A conformity analysis was completed on

January 9, 2006, and Reclamation determined that the Project conforms with the applicable State Implementation Plan and complies with the General Conformity requirements of the Federal Clean Air Act (Reclamation 2006). The conformity analysis is provided as Attachment D.

3.3.4.3 Conclusion

As noted in the AAC Final EIS/EIR, the Project is required to meet the level of compliance in place at the time of construction. Reclamation and IID are cognizant of the current air pollution control regulations applicable to the Imperial Valley Planning Area and will comply with these regulations as described in the *Clean Air Act Conformity Analysis and Record of Non-Applicability (RONA) for Construction of the All American Canal Lining Project* prepared by Reclamation (Reclamation 2006; see Attachment D).

The current construction specifications require that the selected contractor prepare a Dust Control Plan that incorporates approved and appropriate mitigation methods, and that the selected contractor obtain all applicable permits (personal communication, Dimmit 2005). Reclamation will oversee permitting activities to ensure activities are carried out by IID and construction contractors in compliance with applicable laws and regulations.

The changes in the regulatory environment for air quality do not represent significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts because, as described in the AAC Final EIS/EIR, Reclamation and IID had already committed to comply with all current requirements and ensure that the construction contractor has obtained all applicable permits. Merely undertaking additional construction related activities in compliance with current regulations does not require the preparation of a supplemental EIS.

3.3.5 Wetlands

3.3.5.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC Final EIS/EIR provided a methodology for defining wetlands based on the Service's definitions and directly applicable publications characterizing the habitat and vegetation in the region. Based on this established definition, 9,200 acres of wetlands were identified in the area of the AAC and described in the AAC Final EIS/EIR. Seepage from the AAC induced conditions for 1,422 acres of wetland vegetation between Drops 3 and 4, and 100 acres of wetland vegetation between Drops 2 and 3. A continuous, thick stand of common reed, 3 to 15 feet wide, grows along both sides of the AAC for most of its length. The majority of the wetland vegetation is either saltcedar or arrowweed. The location and amount of wetlands described in the AAC Final EIS/EIR was based on statutory and regulatory guidance, and the AAC Final EIS/EIR provided a methodology for defining wetlands based on the Service's definitions and directly applicable publications characterizing the habitat and vegetation in the region (AAC Final EIS/EIR on pages III-18 to III-24).

Impacts. The Parallel Canal Alternative will avoid impacting the principal wetlands complex between Drops 3 and 4 (Final EIS/EIR, pages III-23 through III-24 and Environmental Appendix, Wetlands). This alternative would affect about 99 acres of scattered riparian vegetation, 1 acre of marsh vegetation, and 24 acres of canal bank vegetation. The Parallel

Canal Alternative achieves the mitigation goal of “avoidance of impact” to the maximum degree possible, and the AAC Final EIS/EIR included a commitment to mitigate impacts to wetlands.⁵

3.3.5.2 New Information

IID has awarded a contract to Ecosystems Restoration Associates for wetlands mitigation. The work is underway at this time. This firm or another under contract with IID will resurvey the wetland vegetation between Drops 2 and 3 prior to disturbance. Pre-construction surveys for sensitive plant and animal species also will be conducted.

3.3.5.3 Conclusion

There is no significant new information on wetlands location, amount, composition, or mitigation requirements. The pre-construction work on wetlands mitigation follows the commitments identified in the AAC Final EIS/EIR and Section 7 consultation process. This mitigation work is in advance of the Project’s implementation and is therefore in compliance with the lesser requirement for mitigation activities identified in Public Law 100-675 (i.e., “concurrent with construction”). No significant new circumstances or information relevant to wetland concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.6 Terrestrial Habitat

3.3.6.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC Final EIS/EIR noted that the AAC traverses four terrestrial plant communities: creosotebush scrub, wash woodland, sand dune, and wetlands. Each community supports a diverse variety of wildlife and plant species.

Impacts. The 600-foot construction zone of the Parallel Canal Alternative would impact up to an estimated 1,503 acres of desert scrub and sand dune habitat (587 acres of desert scrub habitat and 916 acres of sand dune habitat). This acreage estimate is considered a maximum probable impact. Approximately half of this acreage, or 751.5 acres, would be permanently

⁵ The authorizing legislation provided specific direction with regard to the mitigation of impacts to fish and wildlife values. Fish and wildlife mitigation for the Project will follow requirements in Public Law 100-675, Sec. 203(a)(2) that provides in part, “The Secretary, in order to reduce the seepage of water, is authorized to implement measures for the replacement of incidental fish and wildlife values adjacent to the canals foregone as a result of the lining of the canal or mitigation of resulting impact on fish and wildlife resources from construction of a new canal, or a portion thereof. Such measures shall be on an acre-for-acre basis based on ecological equivalency, and shall be implemented concurrent with construction of the works.” This provision applies to areas within the geographic borders of the U.S. Accordingly, Section 3.3.5 addresses wetland areas within the U.S.

A Biological Work Group for the AAC Project was formed which consisted of biologists from the Service, BLM, California Department of Fish and Game (CDFG), Reclamation, IID, CVWD and Metropolitan. The Biological Work Group used an adapted version of the Anderson and Ohmart (1984) classification and habitat valuation system to evaluate the acres of habitat to be disturbed and determine the ecological equivalency of disturbed habitat and replacement habitat. The goal of the Project’s wetland mitigation is to conform to the standards in Executive Order 11990, Wetland Management. The majority of seepage wetlands acreage in the Project area is either saltcedar or arrowweed, and both species have minimal wildlife value. Accordingly, the Service endorsed the concept of replacement of saltcedar and arrowweed with other more desirable plant species with a higher habitat value on a less than acre-per-acre ratio, and considered this to be a no net loss in wetlands habitat values. This concept does not apply to the marsh component, which will be mitigated in-kind. Replacement of lower quality habitat with higher quality habitat conforms with the standards in the Executive Order and meets the ecological equivalency requirements of Public Law 100-675 Sec. 203(a)(2) (See the AAC Final EIS/EIR, page III-22 through III-23, Tables III-6, Table III-7 and Environmental Appendix-Wetlands).

lost. The other half, or 715.5 acres, would be temporarily disturbed and would revegetate over time. After final design of Project facilities, location of staging areas, access roads and other uses, the total acreage that would be impacted will be adjusted in consultation with the interagency Biological Work Group. Mitigation for terrestrial vegetation that provides habitat for special status species would be provided on an acre-for-acre basis, based on ecological equivalency.

3.3.6.2 New Information

As a result of final design refinements, the estimate of disturbance acreage has changed from that described in the AAC Final EIS/EIR. The total area affected would increase from 1,503 acres to 2,161 acres. New estimates for the area of desert scrub and sand dune habitat permanently lost to the new parallel canal footprint show a reduction from 751.5 acres to 650 acres. A majority of this acreage reduction is in the high sand dune habitat area of Construction Reach 1B. This reduction was accomplished by keeping the new parallel canal alignment as close as possible to the existing canal, utilizing portions of the existing canal embankment, using open disturbed areas, and crossing southward to use other open and disturbed areas.

The estimated amount of temporarily disturbed area has increased from 751.5 acres to 1,511 acres. The increase of 759.5 acres is related to the need for a wider construction zone in construction Reach 1A and portions of Reach 1B. Native vegetation would reestablish itself over time on the temporary disturbed areas.

Consultation with members of the interagency Biological Work Group has been ongoing during the design phase of the AAC. Representatives of the wildlife agencies, specifically the Service and the California Department of Fish and Game (CDFG), have attended the monthly Project coordination meetings and other meetings with IID and Reclamation environmental and biological staff. In a meeting between IID, the Service, and CDFG on July 26, 2005, IID provided draft drawings of the new canal alignment and likely construction effects based on the draft 60-Percent Design drawings (June 2005). Discussion included opportunities for habitat restoration in the temporary impact areas and within the old canal. All came to agreement that permanent impacts would consist of the new canal and associated access roads. The temporary impacts would consist of the spoil pile out to the limit of the temporarily affected area (limit of work), including the construction access roads, which will be re-contoured to blend with the desert environment after completion of the Project. IID provided updated alignment and disturbance footprint maps and tables to the Service and CDFG at a meeting held on November 11, 2005 based on the 90-Percent Design. Reclamation transmitted the updated alignment maps with disturbance areas and tables of the permanent and temporary disturbance acreages to the two wildlife agencies based on the 90-Percent Design on December 22, 2005 (Reclamation 2005c).

3.3.6.3 Conclusion

The potential for adjustments in construction zone disturbance acreage from the final design relevant to terrestrial habitat was anticipated in the AAC Final EIS/EIR. The above information is consistent with information and guidance in the AAC Final EIS/EIR. The new information on the changes in disturbance amounts to desert scrub and sand dune habitat does not result in significant new impacts. The mitigation commitments remain

unchanged. Therefore, the disturbance adjustments do not constitute substantial changes in the Project that are relevant to environmental concerns.

3.3.7 Special Status Species

Potential impacts of the AAC Lining Project to candidate⁶, proposed, and ESA-listed species in the U.S. are described in the AAC Final EIS/EIR pages III-32 through III-38. In preparation for the Special Status Species analysis section in the AAC Final EIS/EIR, Reclamation requested and received a Fish and Wildlife Coordination Act (FWCA) Report for the Project in January 1988 and a Final FWCA Report in September 1993 (Service 1988 and 1993). This report included the identification and discussion of candidate species. Reclamation prepared and submitted a Biological Assessment which included listed, proposed, and candidate species on September 12, 1989. Reclamation continued to consult with the Service while a preferred alternative was being developed (see Service letters of 2/25/1991 and 11/17/1993). A BCO was received for the Project's preferred alternative on February 8, 1996 (Service 1996).

3.3.7.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC Final EIS/EIR identified 25 sensitive, unique, and protected plant and animal species that may occur in the Project area.

Impacts. The Parallel Canal Alternative avoids significant effects to the Yuma clapper rail and the California black rail by not lining the AAC between Drops 3 and 4. To compensate for the amount of habitat for special status species that would be permanently lost and disturbed, Reclamation or the Project sponsors would acquire replacement on an acre-for-acre basis. The selection of replacement land would be based on its ecological equivalence to the lands lost. The delineation of habitats and the suitability of replacement lands will be determined in consultation with the interagency Biological Work Group.

3.3.7.2 New Information

1996 Biological and Conference Opinion. A BCO was received for the Project's preferred alternative on February 8, 1996 (Service 1996). The BCO addressed the following:

- Biological Opinion concluded that the Project is not likely to jeopardize the continued existence of the Yuma clapper rail or the razorback sucker or result in the destruction or adverse modification of critical habitat of the razorback sucker.

⁶ It should be noted that candidate species have no protection under the ESA; therefore, Reclamation is not required to prepare a Biological Assessment for candidate species or to consult with the Service if it is determined the Project may affect candidate species. In the Service's letter of November 17, 1993 (contained in Attachment E to the AAC Final EIS/EIR), the Service commented on the impacts of the Parallel Canal Alternative to the flat-tailed horned lizard, a Candidate 1 species, and to the Colorado Desert fringed-toed lizard, Andrew's scarab beetle, silver-leaved dune sunflower, and sand food, all Candidate 2 species. All of these species may become Federally listed species before completion of the Project. If any of these species becomes listed before completion of the Project, formal consultation will be required. In the Service's letter of November 17, 1993, the Service noted that it would continue to work with Reclamation to ensure that mitigation measures for these species would meet the mitigation criteria that would be required if any of these species were listed.

- The Conference Opinion concluded that the Project is not likely to jeopardize the continued existence of the Peirson's milk-vetch and the flat-tailed horned lizard⁷. The Project would not result in the adverse modification of critical habitat as none was designated at the time. Reclamation may ask the Service to confirm the Conference Opinion as a Biological Opinion if the Peirson's milk-vetch or the flat-tailed horned lizard are listed. If the Service reviews the Project and finds that no significant changes in the Project as planned or in the information used during the preparation of the Conference Opinion has occurred, the Service will confirm the Conference Opinion as the Biological Opinion and no further Section 7 consultation will be necessary.

Mitigation measures in the BCO for these species are based substantially on the recommendations contained in the Project's FWCA Report (Service 1993) that are incorporated into the AAC Final EIS/EIR and ROD. Reclamation or the Project sponsors would acquire replacement land in the Project area on an acre-for-acre basis and transfer these lands to the BLM for impacted flat-tail horned lizard and dune plant species (i.e., Peirson's milk-vetch). If sufficient lands are not available for acquisition to achieve an acre-for-acre replacement, Reclamation or the Project sponsors would fund a multi-species conservation plan for the sand dune species. Reclamation and the Project sponsors would continue to consult with the Service and CDFG on the selection of appropriate replacement lands and/or development of the multi-species conservation plan.

- Incidental take statements for razorback sucker, Yuma clapper rail and flat-tailed horned lizard were provided. The incidental take statement for flat-tailed horned lizard does not become effective unless the species is listed and the Conference Opinion is adopted as the Biological Opinion.
- The Service determined in the BCO that the destruction of the individuals of listed plant species within the construction right-of-way would not jeopardize their continued existence⁸. The Service also determined that the ecological characterization study of the plants prior to their destruction may yield information important to the recovery of these species. Because the plants would be destroyed by a legal action that would not result in jeopardy, and useful information may be obtained, the Service authorized the ecological characterization studies and the collection of plants and seeds.

⁷ The flat-tailed horned lizard was proposed for listing as threatened in November, 1993, and was thus considered in the BCO. A Biological Work Group (BWG) for the AAC Project was formed which consisted of biologists from the Service, the Bureau of Land Management (BLM), CDFG, Reclamation, IID, CVWD and Metropolitan. Meetings of the BWG were held between July 1988 and February 1994, and its members performed field work, described the existing environment, assessed the potential Project impacts, and formulated mitigation measures. The primary assumption guiding the analysis of the BWG was to treat all sensitive species as if they were already listed as either threatened or endangered under the ESA. The BWG agreed that by using this assumption, if any species became listed during the Project implementation the mitigation measures determined would be adequate and compliance with the ESA would be streamlined. The species addressed in this planning process were Peirson's milk-vetch, silver-leaved dune sunflower, sand food, Thurber's pilostyles, Wiggins croton, giant Spanish needles, Borrego dapple pod, flat-tailed horned lizard, Andrew's dune scarab beetle, and Yuma clapper rail.

⁸ Sections 7(b)(4) and 7(o)(2) of the ESA do not apply to the incidental take of listed plant species. However, protection of listed plants is provided to the extent that the ESA requires a Federal permit for the removal or reduction to possession of endangered plants from areas under Federal jurisdiction, or for any act that would remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any regulation of any state or in the course of any violation of a state criminal trespass law.

- The Service and Reclamation concluded through informal consultation that the Project would not adversely affect the Yuma clapper rail that occur in and adjacent to the Project site (Service letter dated August 17, 1990). Yuma clapper rail was only found in the wetland complex between Drops 3 and 4, which would not be affected by the Project. Reclamation and the Project partners agreed to monitor groundwater in these wetlands to determine if groundwater levels might be lowered by the Project and consult with the Service to initiate reasonable measures to ensure the maintenance of these wetlands.
- Biological mitigation measures in the BCO for the Project follow the recommendations in the FWCA Report for pre-construction surveys, surveys, and monitoring concurrent with construction and post-construction survey and monitoring. Section 203 of Public Law 100-675 identifies that mitigation shall be implemented concurrent with Project construction.

New Information since the 1996 BCO.

Listed Species in Mexico. Interested parties in U.S. and Mexico, including representatives of the Mexican Government, have presented new information regarding potential impacts to U.S.-listed species as a result of groundwater declines resulting from implementation of the Canal Lining Project. Reclamation prepared an analysis of this new information which is attached hereto as Attachment B.

Southwestern Willow Flycatcher. The southwestern willow flycatcher was Federally listed as an endangered species in 1995 (Service 2002b). Critical habitat for the southwestern willow flycatcher was designated on October 19, 2005 (70 FR 60886). During the public comment period for the Draft EIS/EIR and consultations with the Service, no comments were received indicating that the southwestern willow flycatcher required evaluation for the AAC Lining Project. The AAC Lining Project is outside of designated “critical habitat” for this species (Service 2002b, and Service 2005b). In light of the species listing, Reclamation conducted a field survey to evaluate the Project area for potential impacts to the southwestern willow flycatcher. The survey was undertaken by Robert McKernan on May 20, 1999. The survey results concluded that the riparian habitat along and adjacent to the AAC cannot sustain southwestern willow flycatcher, nor is it suitable breeding habitat, and there is no nesting habitat in the area. The species was not found in the area during the breeding season; however, that does not preclude the AAC from being utilized as a migratory route for this species. Habitat structure and quality is not expected to change prior to the completion of construction. Therefore, Reclamation concluded that the AAC Lining Project would result in “no effect” to this species.

Peirson’s Milk-vetch. Peirson’s milk-vetch was Federally listed as threatened on October 6, 1998 (63 FR 53596) and listed by California as a State endangered species in 1979. Critical habitat for the Peirson’s milk-vetch was designated on August 4, 2004 (69 FR 47329, 47351). In a memorandum to the Service on October 3, 2003, Reclamation opposed the proposed designation of “Subunit D” that straddled the AAC in Construction Reach 1A as critical habitat for Peirson’s milk-vetch because of the following impacts to the Project (1) significant increases in time and costs related to reconsultation, (2) significant costs for additional mitigation measures, and (3) the belief that the exclusion of these lands would not adversely affect the continued existence of this species in this region or their persistence in this disjunct, divided, and varied dune habitat. Plant surveys conducted in May 2004

within the AAC right-of-way of “Subunit D” did not locate any Peirson’s milk-vetch (see attachment to Reclamation 2004). Subunit D was not designated as critical habitat, and no designated critical habitat is within the Project area.

Reclamation sent a letter dated September 9, 2004 with the Peirson’s milk-vetch survey results to the Service requesting the confirmation of the Conference Opinion as a Biological Opinion (Reclamation 2004). The Service in their return letter requested additional information on the construction footprint and contractor use area (letter dated November 15, 2004). Reclamation responded on January 25, 2005 that the Project design was progressing and that Reclamation will provide the disturbance footprint when the design is better defined (Reclamation 2005a). Reclamation transmitted the requested information to the Service on December 22, 2005 (Reclamation 2005c). The Service’s response was received on January 10, 2006 and confirmed the adoption of the Conference Opinion as the Biological Opinion for Peirson’s milk-vetch (Service 2006a; see Attachment A). The Service determined that no significant new information has been developed and no significant changes to the Project have been made that would alter the content of the Service’s BCO on the Project’s effects on the Peirson’s milk-vetch.

A number of petitions to delist the Peirson’s milk-vetch have been received and responded to by the Service. Such petitions do not currently affect the consultation for this species.

Flat-tailed Horned Lizard. The Service proposed the flat-tailed horned lizard for listing as threatened on November 29, 1993. About half of the historic flat-tailed horned lizard habitat has been converted to other uses, such as agriculture and urban development. Evaluations suggested that flat-tailed horned lizard populations had declined; however, recent studies found no significant trends in lizard encounter rates in the Yuha Desert, East Mesa, or West Mesa from 1979 to 2001. The Service withdrew its proposed listing on January 3, 2003, based in part on protections offered by the Flat-tailed Horned Lizard Rangewide Management Strategy (FTHL RMS)⁹. The Service determined that listing was not warranted because threats to the species as identified in the proposed rule were not as significant as earlier believed, and current available data did not indicate that the threats to the species and its habitat are likely to endanger the species in the foreseeable future throughout all or a significant portion of its range. Based on a prior lawsuit filed by Defenders of Wildlife and others, U.S. District Judge Neil V. Wake recently reinstated the proposed rule to list the flat-tailed horned lizard as threatened (August 30, 2005, U.S. District Court of Arizona). The Service published in the Federal Register on December 7, 2005 a notice of reinstatement of the 1993 proposed rule to list the flat-tailed horned lizard as a threatened species. A new final listing decision on the proposed rule to list the flat-tailed horned lizard is to be submitted for publication in the Federal Register by April 30, 2006. Reclamation cannot initiate a consultation on the flat-tailed horned lizard unless the species is listed under the ESA. If listed, then Reclamation will request that the BCO be converted into a Biological Opinion for the flat-tailed horned lizard.

⁹ Members of the Flat-tailed Horned Lizard Interagency Coordinating Committee include but are not limited to the following: CDFG, Arizona Department of Game and Fish, BLM (California and Arizona offices), Reclamation, and the Service (Carlsbad and Phoenix offices).

The 1997 edition of the FTHL RMS established five Flat-tailed Horned Lizard Management Areas (FTHL MAS) – four in California and one in Arizona. Surface disturbing activities are limited in these areas. Although land alterations in flat-tailed horned lizard habitat outside of the FTHL MAS are not limited, mitigation and compensation measures are applied. The FTHL RMS was revised and updated in 2003.

Exotic plants were identified and discussed as threats to the flat-tailed horned lizard on pages 18-19 of the 2003 Revision of the FTHL RMS. The effects of non-native annual plants on the flat-tailed horned lizard are unknown (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003). However, their abundance in flat-tailed horned lizard habitat is of concern for several reasons. In portions of the East Mesa, the Coachella Valley, and Sonora, densities of Russian thistle and or Sahara mustard are very great in some years, with stem or culm densities perhaps great enough to impede movement of flat-tailed horned lizards, which are relatively wide-bodied and active. The stem or culm densities may be fire prone and may also destroy native perennial shrubs and facilitate changes in plant composition and the types of food available to harvester ants, the main food prey of flat-tailed horned lizard. In addition to non-native annual plants, saltcedar, a non-native perennial shrub or tree, has invaded areas of shallow groundwater in flat-tailed horned lizard habitat on the west side of West Mesa, in the Yuha Basin (Wright 1993, in Flat-tailed Horned Lizard Interagency Coordinating Committee 2003), and along portions of the All-American and Coachella canals. Flat-tailed horned lizards have been recorded in saltcedar communities (personal communication, Kim Nicol and Betsy Bolster 2003, in Flat-tailed Horned Lizard Interagency Coordinating Committee 2003), but dense stands of saltcedar are likely unsuitable for them.

Insect Species. On July 19, 2004, the Center for Biological Diversity petitioned the Secretary and Service to list 16 insect species endemic to the Algodones Dunes, Imperial California as threatened or endangered (Center for Biological Diversity 2004). The Service responded that they did not have time, funds, or staff to evaluate the species under the petition. The Center for Biological Diversity has sued, and litigation is ongoing on this subject. The Center for Biological Diversity's most recent petition was filed on October 19, 2005.

Service's Birds of Conservation Concern 2002. On February 6, 2003 the Service released its Birds of Conservation Concern 2002 list (68 FR 6179; Service 2003). The list is a management and coordination tool intended to draw attention to high-priority species in need of conservation action (Service 2002a). The Service anticipates that the document will be consulted by Federal agencies and their partners prior to undertaking cooperative research, monitoring, and management actions that might directly or indirectly affect migratory birds. To serve as a broad early warning system in the context of the FWCA, the list includes all of the species for which the Service has some basis, no matter how remote, to consider them to be of conservation concern. Inclusion does not constitute a finding that listing under the ESA is warranted, or that substantial information exists to indicate that listing under the ESA may be warranted (Service 2002a).

Migratory Bird Treaty Act Compliance. To address MBTA requirements, pre-construction bird surveys have been initiated and will be focused on specific species found present within the construction footprint. Clearing and grubbing activities necessary for the Project will be

undertaken outside of the nesting period to avoid take of migratory birds. The AAC Lining Project is subject to the MBTA and will be undertaken in compliance with this Act.

Biological Mitigation. IID has contracted with a number of biological firms to initiate mitigation measures identified in the BCO and AAC Final EIS/EIR in advance of and during construction activities. One firm is conducting wetland mitigation activities in the Drop 3-4 area, and a second firm has initiated plant, reptile, and bird surveys in the Project footprint. Draft reports on the plant and bird surveys have been provided to IID and Reclamation for review.

3.3.7.3 Conclusion

Listed Species in Mexico. Reclamation transmitted its analysis of potential impacts to U.S.-listed species in Mexico to the Service on November 18, 2005. Reclamation's request sought guidance from the Service on its obligations under the ESA for such species located within Mexico. In a response dated January 11, 2006, the Service concluded that Section 7 consultation was not appropriate to address such potential impacts in Mexico; instead, proceeding under Section 8 of the ESA ("International Cooperation") is the appropriate means to achieve species conservation in foreign nations: "neither section 7 of the ESA, nor the section 7 consultation and analysis process under the ESA's implementing regulations addresses species outside the borders of the United States." The January 11, 2006 transmittal from the Service is attached hereto as Attachment C.

Southwestern Willow Flycatcher. No new or more severe impacts are expected because the riparian habitat along the AAC was found to not be suitable for the southwestern willow flycatcher.

Peirson's Milk-vetch. By letter dated September 9, 2004, Reclamation requested the Conference Opinion for this species be confirmed as the Biological Opinion. Mitigation is already identified for this species in the BCO and AAC Final EIS/EIR. Reclamation prepared additional information on the disturbance footprint at the Service's request (see RECON Environmental, Inc. 2005a) and transmitted the requested information to the Service on December 22, 2005 (Reclamation 2005c). The Service's response was received on January 10, 2006 and confirmed the adoption of the Conference Opinion as the Biological Opinion for Peirson's milk-vetch (Service 2006a; see Attachment A). The Service determined that no significant new information has been developed and no significant changes to the Project have been made that would alter the content of the Service's BCO on the Project's effects on the Peirson's milk-vetch. Reclamation is in compliance with Section 7 of the ESA for Peirson's milk-vetch.

Flat-tailed Horned Lizard. Flat-tailed horned lizard is not a listed species and is being managed under the FTHL RMS, of which Reclamation is a participant. The Project will not affect the flat-tailed horned lizard management areas, and any permanent impacts to their habitat will be replaced on an acre-for-acre basis as identified in the BCO and AAC Final EIS/EIR. This information represents ongoing species management and Project implementation and is not significant new information that would require supplementing the AAC Final EIS/EIR. The reinstated proposed rule to list the flat-tailed horned lizard as threatened would not compel the re-initiation of consultation until this species is formally listed.

The threat to the flat-tailed horned lizard from the growth of saltcedar along the AAC is minimal as the density of saltcedar in the Drop 3 and 4 wetland is a little more than 50 percent (not dense). In the wetland between Drop 2 and 3, the density of saltcedar is somewhat greater than 50 percent, but it will be removed by the Project and replaced with higher value vegetation (not saltcedar), based on ecological equivalency, in the wetland between Drop 3 and 4. Flat-tailed horned lizards have been recorded in saltcedar communities like those along the AAC (Kim Nicol and Betsy Bolster, CDFG, pers. comm. 2005, in Flat-tailed Horned Lizard Interagency Coordinating Committee 2003), but dense stands of saltcedar are likely unsuitable for this species.

When and if the flat-tailed horned lizard is listed, Reclamation will request the Conference Opinion on this species be confirmed as the Biological Opinion.

Insect Species. The 16 insect species that the Center for Biological Diversity petitioned to be listed is new information, but is not yet significant because these species are not listed or proposed to be listed. Reclamation and the Project proponents are aware of this petition and will track its progress as it relates to the Project.

Service's Birds of Conservation Concern 2002. A recent survey by IID has identified only one bird from the Service's Birds of Conservation Concern 2002 list, the loggerhead shrike, in the Project area (RECON Environmental, Inc. 2005b). California black rail was also recorded in the Drop 3 and 4 wetlands, but this area will not be affected by the Project. Other existing information suggests that the peregrine falcon is not present in the Project area, but may occasionally be seen migrating through the area because it is a neotropical migrant and there is a population in Mexico.

The Service's Birds of Conservation Concern 2002 watch list is new information that is a management tool for Federal agencies when undertaking actions like the AAC Lining Project. The Service "anticipates that document will be consulted by Federal agencies and their partners" in order to consider the species in their projects and planning efforts. Inclusion on the list does not constitute a finding that listing under the ESA is warranted, or that substantial information exists to indicate that listing under the ESA may be warranted (Service 2002a). The watch list constitutes ongoing management that can be incorporated into survey, monitoring and mitigation efforts for the Project and thus is not significant as it relates to supplementing the AAC Final EIS/EIR.

Migratory Bird Treaty Act/Executive Order 13186 Compliance. Under the provisions of the MBTA, it is unlawful "by any means or in any manner, to pursue, hunt, take, capture [or] kill" any migratory bird or any part, nest, or egg of any migratory bird covered by separate conventions between the U.S. and Great Britain, Mexico, and Russia, or to attempt those activities, except as permitted by regulations issued by the Secretary. The term "take" is not defined in the MBTA, and the Service does not authorize take resulting from activities such as forestry, agricultural operations, construction or operation of powerlines, or other activities where an otherwise legal action might reasonably be expected to take migratory birds, but is not the intended purpose of the action.

Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (signed on January 10, 2001) directs Federal agencies whose actions have a measurable negative impact on migratory bird populations to develop Memorandums of

Understanding (MOU) with the Service to promote conservation of migratory birds. A draft MOU between the Service and Reclamation has been prepared. The Service has indicated that there is no permit that it can issue under the MBTA that covers the Project for the incidental take of birds, including loss or disturbance of their habitat that might be caused by construction activities (Service 2005a). The Project is nevertheless still subject to the provisions of the MBTA, and taking or killing birds incidentally is a violation of the MBTA. The Service recommends that construction work be done when it will have the least amount of impact (i.e., outside of the nesting season).

Compliance with the MBTA for the AAC Lining Project is not new information, and the Project will take precautions to avoid killing or otherwise taking migratory birds.

Biological Mitigation. Although mitigation for fish and wildlife values is required to be accomplished concurrent with construction activities under the Project's implementing legislation, certain actions must be conducted before and after construction. Biological mitigation commitments under Section 7 consultation require certain activities, like preconstruction surveys, to occur prior to construction, and these activities are underway. Monitoring, on the other hand, will continue for a number of years after Project completion. Implementation of the biological mitigation measures was envisioned in the Final EIS/EIR and is not new information that would require preparation of a supplemental EIS.

3.3.8 Large Mammal Escape

3.3.8.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC Final EIS/EIR identified that canals typically transect normal movement patterns of wildlife and, in the desert environment, attract wildlife as a drinking water source. Although there are no documented populations of mule deer in the Project area, the possibility exists that large mammals could occasionally drink from the canal or attempt to cross it.

Impacts. The newly lined canal would have steeper concrete sideslopes and faster water velocities than the existing canal. This could pose a drowning risk to large mammals. This risk would be mitigated by continuous escape ridges slipformed on the concrete lining, and deflector systems would be installed and maintained upstream of all drop structures to direct large mammals to escape ridges.

3.3.8.2 New Information

Large mammal escape ridges were proposed in the AAC Final EIS/EIR to facilitate large mammal escape from the newly lined canal. Similar escape ridges were proposed for the Coachella Canal Lining Project, and an experimental test section was constructed in the Coachella Canal that contained formed, in-place longitudinal escape ridges. Reclamation evaluated the structural integrity of the experimental test section with escape ridges and found a number of structural problems. The escape ridges propagated longitudinal cracking that weakens the concrete lining, resulting in increased seepage loss from the lined section with the escape ridges as compared to the lined section without escape ridges. This weakened structural lining and increased seepage as a result of the escape ridges could defeat the purpose of the Project.

In light of the results of the experimental test section, Reclamation and IID are actively working with CDFG to determine if large mammals and, specifically, mule deer, use the AAC for a water source or attempt to traverse the AAC. A study of animal visitation is being conducted by Dr. Krausman of the University of Arizona to determine the presence of deer in the Project area. One year of deer tracking and aerial surveys has been completed and no sign of deer in the area of the Project has been found. This tracking study will continue for two years post-Project construction. Based on the results of the experimental test section and initial deer survey results, the commitment to construct large mammal escape ridges has been eliminated. Depending on further results from the deer survey, some off-site mitigation measures may be proposed.

3.3.8.3 Conclusion

Based on the poor structural integrity of the escape ridges and the lack of presence of large mammals in the study area, the commitment to construct escape ridges has been eliminated. This change is consistent with the mitigation commitments in the AAC Final EIS/EIR and does not represent a substantial change or new circumstance relevant to large mammal escape and bearing on the Project or its impacts.

3.3.9 Canal Fishery

3.3.9.1 Information in the AAC Final EIS/EIR

Environmental Setting. The AAC contains game and non-game fish from three sources, the Colorado River, natural reproduction in the canal, and CDFG restocking of catfish. The fishery is dominated by channel catfish and also contains largemouth bass, sunfish, and flathead catfish. Other species include common carp, threadfin shad, and striped bass. Channel catfish, bass, and sunfish provide permitted recreational fishing. IID plans to introduce triploid grass carp into the AAC reaches proposed for lining to control aquatic vegetation.

Impacts. The Project would reduce canal vegetation that provides food and cover for shoreline gamefish, and the increased flow velocity would inhibit spawning. These changes would reduce the number of fish in the canal. Project mitigation measures included installing artificial reefs in the lined canal to provide cover for hatchling fish and habitat for aquatic organisms on which the hatchlings feed. Other mitigation measures included stocking fish and providing fish habitat in reservoirs.

3.3.9.2 New Information

Due to safety concerns and design considerations, the mitigation measures identified in the AAC Final EIS/EIR have been replaced with off-site mitigation. Impacts on the canal fishery will be mitigated by providing for enhancement of fishery habitat at wildlife areas managed by CDFG within Imperial County through the annual purchase and delivery of irrigation water to these areas. Specifically, an \$835,000 endowment fund will be established for the purchase of irrigation water for refuges in the Imperial Valley. IID has submitted a draft Memorandum of Understanding to CDFG for review and comment, and will establish a funding mechanism for this process once the Memorandum of Understanding is finalized. The Memorandum of Understanding is to be finalized and signed before construction begins.

3.3.9.3 Conclusion

The AAC Final EIS/EIR made the commitment of 197 artificial tire reefs to be installed in the new lined AAC as mitigation for the loss of aquatic habitat for 96,000 fish. This loss of aquatic habitat and fisheries was of concern to CDFG, and was not a result of the presence of any state or federal threatened or endangered fish species in the canal. The mitigation measures identified in the AAC Final EIS/EIR have been replaced with off-site mitigation. This change allows for the recreational fishery values lost as a result of the Project to be replaced in an area that has better public access, poses less of a safety hazard, and is designed for recreational activities. Reclamation, IID, the Service and CDFG have jointly determined that this mitigation measure will provide mitigation which is comparable to, or better than, the mitigation alternatives for canal fishery impacts proposed in the AAC Final EIS/EIR. This change is consistent with the mitigation commitments in the AAC Final EIS/EIR and does not represent a substantial change or new circumstance or information relevant to canal fishery resource concerns and bearing on the Project or its impacts.

3.3.10 Cultural Resources

3.3.10.1 Information in the AAC Final EIS/EIR

Environmental Setting. The Imperial Valley was a major prehistoric habitation area between 950 and 500 years ago during the last high stand of Lake Cahuilla. The land between Pilot Knob to Drop 4 contains remnants of prehistoric and historic cultural resources. The Pilot Knob area adjacent to the AAC is one of the most significant and sensitive areas of prehistoric cultural resources in the Colorado Desert and has been designated the Pilot Knob Area of Critical Environmental Concern (ACEC). Other scattered archeological sites are located along the AAC.

Impacts. The Parallel Canal Alternative would avoid the Pilot Knob ACEC by starting west of the Pilot Knob ACEC. However, disturbance and/or destruction of some cultural resources will be unavoidable. Class III archeological surveys would be conducted prior to construction in the Pilot Knob area and along the entire length of the canal. The cultural resources identified would be avoided or professionally recovered and/or documented. If a site cannot be avoided, mitigation would include professionally recovering, documenting, and preserving the cultural resources as appropriate.

3.3.10.2 New Information

Reclamation, BLM, IID, and the California State Historic Preservation Office (SHPO) executed a Programmatic Agreement (PA) regarding the Project on June 26, 2003 pursuant to the Section 106 regulations, 36 CFR Part 800 ("Protection of Historic Properties") of the National Historic Preservation Act (NHPA) (see Attachment E). The Advisory Council on Historic Preservation was invited to participate in the development of the PA but declined. Reclamation and the other signatories have elected to pursue compliance with Section 106 of the NHPA through a phased identification and evaluation process as provided for in 36 CFR Part 800.4(b)(2) [designated as § 800.4(b)(2)], and through phased application of the criteria of adverse effect as provided for at § 800.5(a)(3), and to execute this PA pursuant to § 800.14(b). Reclamation, in cooperation with IID, will ensure that the stipulations in the PA are implemented to satisfy the Section 106 regulations. The PA was executed in compliance with the NHPA as directed in the Project's ROD. It provides detailed guidelines on the

actions to be taken to protect cultural resources in the Project area and mitigate the Project's impacts to cultural resources.

In cooperation with Reclamation, IID has entered into contracts with a cultural resources consultant to undertake the completion of Class I, II, and III cultural resource inventories¹⁰, develop reports of these studies, and assist with Native American field trips and consultations. Field trips and consultations are continuing with various Tribes. Consultation with SHPO on the results of the Class I literature search has been completed. Revised Class II and III inventory reports have been provided to Reclamation for distribution and comment from Tribes and SHPO. Consultation with SHPO on the eligibility of located properties for listing on the National Register of Historic Places, and the appropriate mitigation measures for eligible properties are the next steps in the consultation process as identified in the PA.

3.3.10.3 Conclusion

Implementation of the stipulations in the PA pursuant to the Section 106 regulations of the NHPA satisfies the cultural resources mitigation commitments identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS. No significant new circumstances or information relevant to cultural resource concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.11 Recreation

3.3.11.1 Information in the AAC Final EIS/EIR

Environmental Setting. Imperial County is a popular recreational area for both water and desert based activities. BLM manages recreation on an extensive area of Federal land and on Reclamation AAC Project lands under agreement with Reclamation. The area around the AAC is a popular camping and recreation area, and the AAC is also used for recreational fishing. Off-road vehicle operation is a major public attraction in the Sand Hills.

Impacts. The Parallel Canal Alternative would not adversely impact the pattern or general recreational activity along the canal or in the Project area. Construction along the canal would pose minor limitations to off-road recreationists in the Sand Hills area, and an

¹⁰ Cultural Resources Survey refers to the study of an area to identify the cultural resources that are, or may be, present. Reclamation utilizes three levels of survey: Class I, Class II, and Class III. The purpose of the Class I survey is to identify known cultural resources in an area and to assess the need for additional survey information. The Class I inventory is primarily a literature and archival search. It consists of identifying cultural resources that have been listed on or determined eligible for inclusion on the National Register. It also includes contacting appropriate Federal, State, and local agencies, Native American tribes, other interested persons, and records repositories. The purpose of the Class II survey is to identify and predict the type, density, and distribution of cultural resources in an area. It is designed to determine if significant cultural resources are present in the surveyed areas, or are likely to occur elsewhere in the study area. If significant resources are likely to occur in other portions of a study area, additional cultural resources work will be necessary. The Class II survey includes the requirements of a Class I survey and is an intensive on-the-ground examination of a sample, or portion, of the study area. A Class II survey may require test excavations or other specialized studies for the purpose of evaluating the significance of cultural resources. The purpose of the Class III survey is designed to locate all cultural resources in an area. As appropriate, a professional evaluation of their eligibility for the National Register will be undertaken. The Class III survey includes the requirements of a Class I survey and an intensive on-the-ground examination of the entire study area. A Class III survey may require test excavations or other specialized studies for the purpose of evaluating the significance of cultural resources and for determining the geographical extent of a site.

interim recreation management plan would be developed jointly with BLM to minimize public inconvenience during construction and ensure public safety.

The Project would adversely affect recreational fishing by reducing the numbers of gamefish in the lined canal. This would be mitigated by installing artificial reefs in the lined canal.

3.3.11.2 New Information

An Internal Review Draft of the Recreation and Transportation Management Plan for the Project has been prepared and is being reviewed by IID, Reclamation and BLM. The purpose of the Recreation and Transportation Management Plan is to identify the measures that will be taken to provide use of recreation resources and opportunities, ensure public safety, and minimize public inconvenience during construction of the Project. The Plan identifies specific measures to be undertaken, in conjunction with construction activities, to assure that local recreation and transportation uses and opportunities are safely maintained with minimum disruption to the visiting public and the construction work force. The Plan also describes provisions to be used to communicate with the interested public, advising them of access changes, temporary road closures, and alternate recreation areas that are available during construction activities.

As noted in Section 3.3.9.2, the commitment to install artificial reefs in the canal and replace the loss of game fish has been replaced with off-site mitigation.

3.3.11.3 Conclusion

The Recreation and Transportation Management Plan is being developed to implement the environmental commitments made in the AAC Final EIS/EIR. It does not represent new information that would require preparation of a supplemental EIS. No significant new circumstances or information relevant to recreational resource concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994. See Section 3.3.9 for a discussion of the canal fishery.

3.3.12 Land Ownership and Use

3.3.12.1 Information in the AAC Final EIS/EIR

Environmental Setting. The first 0.4 miles of the 29.9 mile section of canal under consideration, lie in the Fort Yuma Indian Reservation, along a 1,000 foot wide right-of-way for the canal. The remainder of the canal lies on Federal land previously withdrawn from the public domain for irrigation development in the Imperial Valley and for construction of the AAC.

Impacts. The Parallel Canal would begin downstream from the Fort Yuma Indian Reservation and the Pilot Knob ACEC. The Project would be located entirely within the area previously withdrawn from the public domain for construction of the canal and disposal of excavated materials. The Project may require acquisition of land for mitigation.

3.3.12.2 New Information

Land status and land use within the Project area is the same as described in the AAC Final EIS/EIR. The Project continues to be located entirely within the area previously withdrawn from the public domain for the operation, maintenance, and replacement of the AAC. This includes construction the new parallel canal and placement of excavated spoils materials.

However, construction access areas and the overall construction area are slightly different than described in the AAC Final EIS/EIR (see Section 3.2.2). The beginning point of the Project remains 1 mile west of Pilot Knob and outside of the Pilot Knob ACEC. No access through the Fort Yuma Indian Reservation will be needed for the Project, and thus no impacts on tribal resources will occur. The Project will require permits from the BLM for construction access.

3.3.12.3 Conclusion

Because the Project continues to be located entirely within the area previously withdrawn from public domain for the AAC, no significant new circumstances or information relevant to land ownership and use concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.13 Sand and Gravel Supplies

3.3.13.1 Information in the AAC Final EIS/EIR

Environmental Setting. Sources of sand and gravel suitable for manufacture of concrete are located near the foot of the Chocolate Mountain in the Chocolate Mountains Aerial Gunnery Range. Other scattered locations are located in Imperial Valley and the Fort Yuma Indian Reservation. The supply of sand and gravel available for use is limited because of the content of the deposits.

Impacts. The Parallel Canal Alternative would require approximately 185,000 cubic yards of sand and gravel. Gravel would come from established quarry areas in Imperial County, and may also come from a new source on the Fort Yuma Indian Reservation. All Federal, State, and county regulations would be followed.

3.3.13.2 New Information

Two sand and gravel sources have been proposed. One source is on Reclamation lands west of Sidewinder Road adjacent to the AAC Lining Project. Testing of this area for suitability is ongoing. If found suitable, then access to and the boundaries of the area may need to be adjusted to avoid sensitive resources located within the area. A second source is under evaluation in the American Girl Mine area northeast of Ogiby, California. This area is managed by the BLM, and Reclamation and IID are working with the BLM on the necessary permit requirements. Reclamation and IID will also consider the use of other sources that may be identified by a construction contractor. As identified in the AAC Final EIS/EIR, all Federal, State and county regulations will be followed. A new quarry site on the Fort Yuma Indian Reservation is no longer under consideration.

3.3.13.3 Conclusion

Additional information has become available on the suitability of different sand and gravel sources for the Project. As identified in the AAC Final EIS/EIR, sand and gravel for the Project would come from established quarry sites in Imperial County. Additional specificity on the sources does not constitute significant new circumstances or information relevant to sand and gravel supplies and bearing on the Project or its impacts.

3.3.14 Transportation

3.3.14.1 Information in the AAC Final EIS/EIR

Environmental Setting. The main east-west arterial highway in Imperial County is Interstate 8. Interstate 8 provides access to all the structures and various other points along the AAC. State Highway 86 provides a north-south connection service between Interstate 8 at El Centro and Interstate 10 at Indio via the western shore of the Salton Sea. Rail service is provided by Southern Pacific Railroad. Unpaved service roads along the canal are used for maintenance, recreational travel, and surveillance by the Border Patrol.

Impacts. Construction workers and construction materials would reach the jobsite via Interstate 8 and various local paved and unpaved roads between El Centro, California, and Yuma, Arizona. Traffic on Interstate 8 and most of the local roads is below capacity, and construction traffic would not significantly affect local transportation. Increased safety hazards due to the off-highway traffic hazards would be addressed in the recreation management plan.

3.3.14.2 New Information

Various improvements to Interstate 8 and State Highway 86 have occurred since completion of the AAC Final EIS/EIR, but the overall transportation network remains the same. An Internal Review Draft of the Recreation and Transportation Management Plan for the Project has been prepared and is being reviewed by IID, Reclamation and BLM. Refer to Section 3.3.11.2, Recreation, above for a full description of the Plan.

3.3.14.3 Conclusion

No significant new circumstances or information relevant to transportation concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.15 Hydroelectric Power

3.3.15.1 Information in the AAC Final EIS/EIR

Environmental Setting. There are hydroelectric power plants along the AAC and the Colorado River. IID operates hydroelectric plants at Drops 1, 2, 3 and 4 on the AAC. Electricity generation fluctuates with the amount of water flowing through the canal, and the canal is usually operated at the highest water level possible to maximize electricity generation. Along the Colorado River, water released for downstream deliveries generates energy at Parker, Davis, and Hoover dams. The power plants are owned and operated by Reclamation, and the energy is marketed by the Western Area Power Administration.

Impacts. Because the Project would result in reduced flows below Parker Dam and in the AAC to Drop 3 (i.e., conserved water would be transferred to water users in Southern California and diverted at Lake Havasu instead of being diverted at Imperial Dam), it would reduce hydroelectric power generation along the AAC by approximately 220,000 kilowatt hours per year. This reduction is less than 0.2 of a percent of the total power generated along the AAC. The Project would also reduce generation along the Colorado River at Parker, Davis, and Hoover dams by a combined amount of approximately 5 million

kilowatt hours per year or about a 0.9 percent reduction at Parker Dam, an insignificant increase at Davis Dam, and a 0.03 percent decrease at Hoover Dam.

3.3.15.2 New Information

There is no new information on hydroelectric power. As described in the AAC Final EIS/EIR, the amount of hydroelectric energy lost as a result of the Project would be minor.

3.3.15.3 Conclusion

No significant new circumstances or information relevant to concerns over hydroelectric energy generation along the AAC and the lower Colorado River and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.16 Project Operating Energy Requirements

3.3.16.1 Information in the AAC Final EIS/EIR

Environmental Setting and Impacts. The Parallel Canal Alternative does not require energy to operate, and therefore, no impacts as a result of Project operating energy requirements would occur.

3.3.16.2 New Information

There is no new information on Project operating and energy requirements. As described in the AAC Final EIS/EIR, the Project would not require electrical energy for operation.

3.3.16.3 Conclusion

No significant new circumstances or information relevant to Project operating energy requirements and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.17 Public Safety

3.3.17.1 Information in the AAC Final EIS/EIR

Environmental Setting. Public contact with the canal occurs through visitation, recreation, and illegal immigration. Posted signs warn against swimming in the canal, but numerous drownings have occurred.

Impacts. The Parallel Canal Alternative would make entering the canal more hazardous due to increased flow velocities in the canal. The concrete lining would become slippery at and below the water surface because of accumulated silt and aquatic vegetation, which would make climbing out of the canal difficult. This increased public safety hazards would be mitigated by placement of escape ridges on the canal lining, and signs would be posted on both sides of the canal to warn people. Field testing of the escape ridges would be conducted prior to construction to confirm the effectiveness of the ridges, and safety ladders would be added if the field testing indicates that the ridges are not effective.

3.3.17.2 New Information

Two refinements in the AAC Lining Project may require additional devices for public safety in the canal. First, large mammal escape ridges, which would also facilitate human escape, will not be constructed (see Section 3.3.8). Second, the side slopes of the newly lined section in Reaches 1A, 1B, and Reach 2 will be steeper than described in the AAC Final EIS/EIR (see Section 3.2.2.2.).

3.3.17.3 Conclusion

Refinements to the canal design do not result in significant new impacts and do not increase mitigation commitments. The planned spacing for safety ladders, 375 feet apart on alternating sides, was reviewed and found to meet Reclamation standards. New hazard signage in English and Spanish will be installed along the new concrete lined canal. The Project design refinements do not constitute significant new circumstances or information relevant to public safety concerns and bearing on the Project or its impacts.

3.3.18 Employment and Income During Construction

3.3.18.1 Information in the AAC Final EIS/EIR

Environmental Setting. The Imperial County unemployment rate has varied from 19.9 percent to over 30 percent in the last decade. Unemployment rates in Imperial Valley are complicated by (1) the large numbers of non-U.S. residents that commute daily across the border for employment and (2) non-U.S. residents filing unemployment claims in Imperial County. Unemployment rates in Imperial County therefore, may be overstated.

Impacts. Construction of the Project would provide employment for local citizens and for construction workers from outside of the area. For the Parallel Canal Alternative, contractor manpower requirements are estimated at 415 work years, of which 75 percent are expected to be filled locally.

3.3.18.2 New Information

As of 2004, the total estimated wage and salary employment in Imperial County increased to approximately 49,700 and unemployment stood at 17.1 percent (California Employment Development Department 2004). Overall, the farming and agricultural service sector continues to account for the largest percentage of overall employment; however, the percentage of employment in the industrial and service sectors is increasing.

3.3.18.3 Conclusion

Although employment has increased and unemployment has decreased slightly in the Imperial Valley since 1994 and is projected to change in the future as a result of projects and actions by others¹¹ and market factors, these changes do not constitute significant new

¹¹ For example, the IID Water Conservation and Transfer Project is an independent undertaking that will result in some fallowing within IID, with resulting effects on farm-related employment. As described in the IID Water Conservation and Transfer Project EIR/EIS, up to 50,000 acres of farm land could be fallowed (under a worst-case scenario) if fallowing were selected as the exclusive method of conserving water for transfer (Reclamation and IID 2002). This acreage represents about 11 percent of the total net acreage in agricultural production in the IID water service area. Such fallowing could result in a net loss of about 1,400 jobs within Imperial County, mostly in the agricultural sector. Such a change would comprise just under 3

circumstances or information relevant to environmental concerns and bearing on the Project or its impacts. As discussed in the AAC Final EIS/EIR, the AAC Lining Project will create jobs and result in a net economic benefit to the local area.

3.3.19 Local Community Structure

3.3.19.1 Information in the AAC Final EIS/EIR

Environmental Setting. The seven incorporated cities in Imperial Valley are Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland. The cities comprise 74 percent of the population in Imperial County.

Impacts. The Parallel Canal Alternative would result in minor impacts to the local community structure in the Imperial Valley. Two hundred construction workers and family members are expected from outside the area. This is not expected to have a significant effect on the local community structure.

3.3.19.2 New Information

Local community structure has changed slightly, with overall population increases seen in Imperial County and the incorporated and non-incorporated cities within the county. However, the overall local community structure is essentially the same as was described in the AAC Final EIS/EIR.

3.3.19.3 Conclusion

No significant new circumstances or information relevant to the local community structure and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.3.20 Immigration From Mexico

3.3.20.1 Information in the AAC Final EIS/EIR

Environmental Setting. Many illegal aliens cross the AAC, and most cross in the Pilot Knob area. The canal itself is not fenced and many illegal aliens swim the canal and risk drowning. The Border Patrol monitors the section of the International Boundary in the Project area.

Impacts. The Parallel Canal Alternative would not have a significant effect on the Border Patrol's operations. The Border Patrol would need to increase its surveillance activities during the anticipated 28-month Project construction period. As described in the Final EIS/EIR, the Project may make it easier for illegal aliens to escape detection. Construction activities and the old canal would make it more difficult for the Border Patrol to conduct surveillance and these areas would need to be more intensively patrolled.

percent of the year 2000 county employment level, representing about 12 percent of the total county agricultural employment. The net decrease in the value of business output is estimated to be \$98 million. This amount represents approximately 2 percent of the estimated \$4.8 billion total value of business output for Imperial County. The IID Water Conservation and Transfer Project included mitigation measures for these socio-economic and employment impacts, and a "local entity" was established to administer the receipt and disbursement of mitigation funds.

3.3.20.2 New Information

There has been an increased focus on immigration and national security since the September 11, 2001 terrorist attacks. Illegal immigration from Mexico was of concern prior to this date. However, economic incentives in the U.S. are believed to play a large role in illegal border crossings (wages are approximately 15 times greater in the U.S. than in Mexico depending on the value of the Mexican peso). Between Sidewinder Road, the Project's beginning point, and Drop 3, the Project's end point, the monthly entries in this area over the last 12 months average 647 (U.S. Border Patrol communication, 8/23/2005). On July 12, 2005, the Border Patrol reported that the illegal immigration level along the California border was "elevated," as compared to "high" along the Texas border and "severe" around Arizona and New Mexico¹². Border Patrol figures show a marked decrease in illegal traffic since 2004 in the El Centro sector, with more illegal traffic occurring farther east, closer to Yuma, Arizona. The overall decrease in illegal traffic in the El Centro sector can be attributed to many things, including a new camera system and a local shift in immigrant traffic toward Arizona (Rogers 2005). Since the September 11, 2001 terrorist attacks, there is also an increased concern of the possibility of international terrorists entering the U.S. through the Mexico border.

The Project right-of-way and canal features are used by the Border Patrol for visual and other electronic surveillance purposes through an agreement with Reclamation and IID. The existing AAC is an effective physical feature for focusing surveillance activities. The Border Patrol notes that as long as the Project does not include covering the canal (which is not included in the Project design), there should be no major security issues associated with the Lining Project (U.S. Border Patrol communication, 8/23/2005). The Border Patrol is concerned that the present location of their Remote Video Surveillance System, located on the north bank of the present canal, could be disrupted by relocation of the parallel canal and would need to be relocated (Border Patrol communication, 8/23/2005). The Border Patrol is a cooperating agency and attends Project coordination meetings on the AAC Lining Project. Their surveillance needs will be accommodated during and after construction of the Project.

3.3.20.3 Conclusion

Illegal immigration along the Mexican border was an issue at the time of the AAC Final EIS/EIR, and these concerns remain. During construction of the Project the Border Patrol will continue its visual and electronic surveillance activities along the border. The Border Patrol has been attending the Project coordination meetings, as well as those of the recreation and access planning group, and will advise these groups of their needs during and after the construction phase. Their surveillance needs will be accommodated during and after construction of the Project.

¹² The Homeland Security Advisory System provides guidance on the current threat conditions and appropriate response to those conditions. The system includes five "alert levels", green, blue, yellow, orange, and red, with green representing the lowest potential for a terrorist attack and red representing the highest. Alert level yellow indicates an "elevated condition" with "significant risk of terrorist attacks." Alert level orange indicates a "high condition" with "high risk of terrorist attacks." Alert level red indicates a "severe condition" with "severe risk of terrorist attacks."

3.3.21 Growth Inducement and Land Use Planning

3.3.21.1 Information in the AAC Final EIS/EIR

Environmental Setting. Populations that could be affected by the Project are located in Imperial County, where Project construction would occur, and in the Southern California coastal region, where the conserved water would be used.

Impacts. The Project would not induce growth in the Imperial Valley or in the Southern California coastal area. In the Imperial Valley, water conserved by the Project would provide for higher than normal agricultural needs caused by weather or cropping patterns. In the Southern California coastal area, any water used from the Project would help offset projected water shortages.

3.3.21.2 New Information

California Legislative Actions. Portions of the California Water Code address the linkage between the availability of water for urban use and effective land use planning. In 1983, the California Legislature enacted the Urban Water Management Planning Act (California Water Code Sections 10610 - 10656). This Act states that large and moderate sized urban water suppliers should make every effort to ensure the appropriate level of reliability in their water service sufficient to meet the needs of their customers. The Act attempts to provide incentives to water agencies that develop Urban Water Management Plans (UWMPs) and describes the contents of these plans, as well as how urban water suppliers should adopt and implement the plans. UWMPs are intended to serve as important source documents for cities and counties as they prepare or update their General Plans that provide a long-term, comprehensive direction for future development. Conversely, existing General Plans are source documents for water suppliers as they develop and update their UWMPs.

Metropolitan and SDCWA recently prepared updated UWMPs (Metropolitan 2005, SDCWA 2000). Federal land and water management agencies have no requirements and limited roles in the planning of urban land development and water supply planning in California.

Senate Bill 610 and Senate Bill 221 amended the California Water Code in 2002 to improve the link between information on water supply availability and certain land use decisions made by cities and counties. Senate Bill 610 and Senate Bill 221 are companion measures that seek to promote more collaborative planning efforts between local water suppliers and agencies controlling land uses – especially with regard to the approval of specified large development projects. These statutes also require this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by a city or county on such projects. Both measures leave local control and decision making regarding the availability of water for projects and the approval of projects at the local (city or county) level.

Execution of the Colorado River Water Delivery Agreement. At the time of the AAC Final EIS/EIR, it was anticipated that the conserved water would be used by Metropolitan in the Southern California coastal area, but no funding agreement to pay for the canal lining had been executed, and the authorization for the Project (Title II of Public Law 100-675) simply stated the conserved water would be made available to the California Colorado River contractors under established priorities. With the execution of the Colorado River Water

Delivery Agreement and related agreements on October 10, 2003, it was clearly established that the 67,700 AFY of conserved water will be divided as follows: 56,200 AFY to SDCWA (and/or Metropolitan or IID under certain circumstances) and 11,500 AFY for San Luis Rey Settlement Act parties (the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey Indian Water Authority, the City of Escondido, and the Vista Irrigation District) in accordance with the settlement agreement.

3.3.21.3 Conclusion

As required by NEPA, the Implementation Agreement EIS, which analyzed the impacts of implementing the Colorado River Water Delivery Agreement, devoted substantial treatment to growth inducement. The water transfers addressed in the Implementation Agreement EIS included the conserved water from the lining of the AAC. The Implementation Agreement EIS concludes that the Colorado River Water Delivery Agreement will not foster economic or population growth or remove obstacles to population growth within the IID, CVWD, Metropolitan, or SDCWA service areas (Reclamation 2002 and 2003a). As described in the Implementation Agreement EIS, the Colorado River Water Delivery Agreement (including the AAC Canal Lining Project) does not directly or indirectly provide new water supplies to Southern California. Rather, the Agreement provides the mechanism to better maintain historical deliveries of Colorado River water to the Southern California area and replaces historical deliveries of surplus water or water allocated to, but unused by Arizona or Nevada (Reclamation 2002 and 2003a). With regard to the SDCWA service area, the Project will replace water that would have otherwise been purchased from Metropolitan.

The findings of the more recent Implementation Agreement EIS analysis are consistent with the conclusions of the AAC Final EIS/EIR – that the water made available by lining the AAC will not induce population growth, either in the Imperial Valley or elsewhere in Southern California. Regardless of increased recognition of the linkage between water supply and population growth suggested by the California legislation cited, the results of a more recent analysis do not suggest any different impact than described in the AAC Final EIS/EIR. Therefore, there are no significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

3.3.22 Indian Trust Assets

3.3.22.1 Information in the AAC Final EIS/EIR

Environmental Setting. The first 0.4 mile of canal under consideration lies on the Fort Yuma Indian Reservation along a 1,000 foot wide right-of-way obtained for Project construction. During the EIS process, Reclamation representatives met and corresponded with the Quechan Indian Tribe regarding the Project. Two potentially affected assets were identified: (1) construction workers may need to cross reservation lands, and (2) the Tribe would like to sell gravel for use in Project construction. The Tribe was receptive to negotiating an agreement to allow workers to cross reservation lands. Reclamation is receptive to purchasing gravel from the Tribe (given suitability testing by the contractor).

Impacts. The Parallel Canal Alternative would provide an opportunity for the Tribe to market gravel for construction.

3.3.22.2 New Information

The preferred alternative for the Project is to construct a parallel canal from 1 mile west of Pilot Knob to Drop 3. The beginning point is about 1.5 miles west of the boundary of the Fort Yuma Indian Reservation of the Quechan Indian Tribe. Construction access to the beginning point will be afforded by use of the existing Sidewinder Road crossing BLM and Reclamation lands. Access across Tribal lands will not be needed for construction activities and no Tribal resources will be affected by the Project. The Quechan Indian Tribe has informed Reclamation that the Tribe is not presently interested in providing sand and gravel from Tribal lands for the AAC Lining Project.

3.3.22.3 Conclusion

The Project will not affect Indian trust assets, and no significant new circumstances or information relevant to Indian trust assets and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.4 Chapter IV: Cumulative Impacts

3.4.1 Information in the AAC Final EIS/EIR

In addition to the AAC Lining Project, the following other projects would affect flows between Parker and Imperial dams: the Coachella Canal Lining Project, Cliff Dam Water Replacement, Southern Arizona Water Rights Settlement Act, Imperial County Groundwater Storage and Recovery, and the San Luis Indian Rights Settlement Act. The aggregate amount of water involved is estimated to be 480,000 AFY. An analysis of the impacts from these projects concluded that cumulative impacts to resources between Parker and Imperials dams would be insignificant.

3.4.2 New Information

A number of regulatory changes in the operation of the Colorado River have occurred since the AAC Final EIS/EIR. These include the adoption of Interim Surplus Guidelines in January 2001, and the adoption of the Inadvertent Overrun and Payback Policy, and the execution of the Colorado River Water Delivery Agreement in October 2003.

As required by NEPA, Reclamation includes a cumulative impact analysis in all of its EISs. Recent EISs that have considered the AAC Lining Project in their cumulative impact analyses are listed below. A summary of the findings of the cumulative impact analysis in these EISs related to the AAC Lining Project is also provided below.

- Colorado River Interim Surplus Criteria Final EIS— The change in Colorado River flows that would occur with the AAC Lining Project was incorporated into the hydrologic modeling conducted for this EIS, and the Interim Surplus Criteria's impacts to river flows were considered in combination with the AAC Lining Project (Reclamation 2000, see Chapter 1.4 Related and Ongoing Actions, and Chapter 4.2 Cumulative Impacts).
- Coachella Canal Lining Final EIS/EIR— The change in Colorado River flows that would occur from implementation of the Colorado River Water Delivery Agreement (then termed the Implementation Agreement), which included the AAC Lining Project was

considered as a related project and a cumulative project in the Coachella Canal Lining EIS/EIR (Reclamation and CVWD 2001, see Chapter 1.8 Relationship to other Projects, and Chapter 4 Cumulative Impacts). The Coachella Canal Lining Final EIS/EIR's cumulative impact analysis described the then ongoing NEPA compliance for the Colorado River Water Delivery Agreement along with the ESA Section 7 consultation on the Agreement.

- Implementation Agreement Final EIS— The AAC Lining Project was one of the projects included in the overall Colorado River Water Delivery Agreement (then termed the Implementation Agreement). The Implementation Agreement EIS included the impacts of the change in Colorado River flows that would occur from the AAC Lining Project in the Implementation Agreement Final EIS's hydrology, water quality and water supply analysis (Reclamation 2002, see Chapter 1.5 Relationship to Other Planned Projects and Section 3.1). The impacts of the AAC Lining Project to other resource areas were considered in the cumulative impacts analysis (see Chapter 4.2 Cumulative Impacts of the Implementation Agreement EIS). No significant cumulative impacts of the Implementation Agreement in combination with the AAC Lining Project were identified.
- IID Water Conservation and Transfer Project Final EIS/EIR— Less than significant cumulative impacts of the IID Water Conservation and Transfer Project in combination with the AAC Lining Project were identified for hydrology and water quality and biological resources (Reclamation and IID 2002, see Chapter 1.5 Projects and CEQA/NEPA Documentation Related to the Proposed Project, and Chapter 5.1 Cumulative Impacts).
- Lower Colorado River Multi-Species Conservation Program EIS/EIR— Only a small segment of the AAC Lining Project would occur in the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) planning area. However, potentially significant cumulative air quality impacts were identified for the LCR MSCP in combination with the AAC Lining Project because the construction activities associated with the LCR MSCP have the potential to result in significant, potentially unavoidable impacts from increased PM10 emissions (Reclamation, Service, and Metropolitan 2004, see Chapter 4, Cumulative Impacts). As described in the LCR MSCP EIS/EIR, significant cumulative impacts would occur only if construction activities associated with the LCR MSCP and the AAC Lining Project occur at the same general time and in the same general location. However, because no construction activities associated with the LCR MSCP are planned in the next three years in the proximity of the construction of the AAC Lining Project, cumulative impacts will be less than significant.
- Salton Sea Restoration Project Draft EIS/EIR— The Salton Sea Restoration Project Draft EIS/EIR addressed cumulative surface water and groundwater impacts at a broad level and assumed a cumulative reduction in inflow to the Salton Sea in the future from all of the cumulative projects (i.e., the reduction from each individual project was not quantified) (Reclamation and Salton Sea Authority 2000, see Section 2.7, Projects included in the Cumulative Impact Analysis, Sections 4.1, Surface Water Resources, and 4.2, Groundwater Resources). No significant cumulative impacts of the Salton Sea

Restoration Project in combination with the AAC Lining Project were identified for surface water, groundwater or other resource areas.

In addition, the AAC Lining Project was included in the cumulative impact analysis for the Coachella Valley Water Management Plan and State Water Project Entitlement Transfer Final Program EIR (CVWD 2002, see Section 9, Related Projects and Cumulative Impacts). Because a Finding of No Significant Impact (FONSI) was prepared for the Rule for Offstream Storage of Colorado River Water, a cumulative analysis was not conducted for that project. However, as described in the FONSI, the Rule would not result in significant impacts, and therefore, no cumulative impacts would occur (Reclamation 1999a).

This approach is appropriate to ensure the continued consideration of cumulative impacts as new projects and actions are considered.

3.4.3 Conclusion

None of the documents identified significant new cumulative impacts in association with the Project. Overall, there are no significant new cumulative impact circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

3.5 Chapter V: Short-term Use of Man's Environment Versus Maintenance of Long-term Productivity

3.5.1 Information in the AAC Final EIS/EIR

Cultural Values. The Project could unearth some Native American burial or cremation sites. In the event that cultural resources are discovered during construction, work would be suspended until evaluation and mitigation is complete.

The noise and visual presence of heavy construction activity within several hundred feet of an area sacred to the Quechan Indian Tribe would be short-term and would not unduly disturb the Tribe.

Native Vegetation. Construction of the new canal would involve disturbance of vegetation for equipment travel and access. Because vegetation would re-establish this is impact considered short-term.

3.5.2 New Information

Cultural Values. As described in Section 3.3.10 of this document, in cooperation with Reclamation, IID has entered into contracts with a cultural resources consultant to complete Class I, II, and III cultural resource inventories, develop reports of these studies, and assist with Native American field trips and consultations. Field trips and consultations are continuing with various Tribes. Revised Class II and III inventory reports have been provided to Reclamation for distribution and comment with interested Tribes, including the Quechan Indian Tribe pursuant to the PA.

Native Vegetation. As described in Section 3.3.5, IID has awarded a contract to Ecosystems Restoration Associates for wetlands mitigation. The work is underway at this time. New information for terrestrial habitats is described in Section 3.3.6.2. Permanently lost habitat

has been reduced from the original estimates in the AAC Final EIS/EIR. Excavated spoils will revegetate over time as will the original AAC when it is taken out of service. The new lined AAC represents a long-term loss of habitat, but it would be balanced by revegetation of the spoils and out of service canal reaches.

3.5.3 Conclusion

Cultural Values. Implementation of the cultural resources mitigation measures follows the commitments identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS. No significant new circumstances or information relevant to cultural resource concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

Native Vegetation. The preconstruction work on wetlands mitigation follows the commitments identified in the AAC Final EIS/EIR and Section 7 consultation process. This mitigation work is in advance of the Project's implementing legislation requirement for mitigation activities "concurrent with construction." No significant new circumstances or information relevant to wetland concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

No significant new circumstances or information relevant to terrestrial habitat concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.6 Chapter VI: Irreversible and Irretrievable Commitment of Resources

3.6.1 Information in the AAC Final EIS/EIR

Lining the AAC is expected to cause at least minor irreversible and irretrievable commitments of environmental resources.

Cultural Resources. Cultural resources could be adversely affected. If any cultural resources are found along the new canal they would be professionally recovered, documented, and preserved as appropriate.

Land Ownership and Use. The Parallel Canal Alternative would irretrievably occupy approximately 530 acres of land presently in a natural or previously disturbed condition.

Sand and Gravel. Gravel for manufacture of concrete is not plentiful in the Project area. Gravel needed for the Project (approximately 185,000 cubic yards) would reduce the local supply available for future projects in the area.

Hydroelectric Power. If the conserved water is not used by IID, CVWD, or Palo Verde Water District, the reduction in flow from the Colorado River would reduce the amount of hydroelectric power generated at Parker and Hoover dams by approximately 5 million kilowatt hours per year or about a 0.9 percent reduction at Parker Dam, an insignificant increase at Davis Dam, and a 0.03 percent decrease at Hoover Dam. If the conserved water is not used by IID, the reduction in flow of the AAC would reduce the amount of hydroelectric

power generated there by approximately 220,000 kilowatt hours per year which is less than 0.2 of a percent of the total power generated along the AAC.

3.6.2 New Information

Cultural Resources. As described in Section 3.3.10, Reclamation, BLM, IID, and the California State Historic Preservation Office executed a Programmatic Agreement on June 26, 2003 regarding the construction of the AAC Lining Project. IID is implementing the cultural resources mitigation measures identified in the AAC Final EIS/EIR, including Class I, II, and III cultural resource inventories, developing reports of these studies, and assisting with Native American field trips and consultations. Cultural resources are being addressed following the procedures in the Programmatic Agreement.

Land Ownership and Use. The Parallel Canal Alternative would irretrievably occupy approximately 650 acres of land presently in a natural or previously disturbed condition. See Section 3.3.12 for additional information.

Sand and Gravel. As was described in the AAC Final EIS/EIR, gravel for manufacture of concrete is not plentiful in the Project area. However, two sources have been proposed. Reclamation and IID will continue to monitor the potential for use of other sources that may be identified by a construction contractor.

Hydroelectric Power. There is no new information on hydroelectric power or hydroelectric energy generation.

3.6.3 Conclusion

Cultural Resources. Implementation of the cultural resources stipulations identified in the AAC Final EIS/EIR and Programmatic Agreement is not new information that would require preparation of a supplemental EIS. No significant new circumstances or information relevant to cultural resource concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR.

Land Ownership and Use. The increase in the amount of land irretrievably occupied by the Project is not significant new circumstances or information relevant to land ownership and use concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR because the overall mitigation commitments in the Final EIS/EIR remain unchanged.

Sand and Gravel. As described in the AAC Final EIS/EIR, sand and gravel for the Project would continue to come from established quarry sites in Imperial County. Additional specificity on the sources does not constitute significant new circumstances or information relevant to sand and gravel supplies and bearing on the Project or its impacts.

Hydroelectric Power. No significant new circumstances or information relevant to concerns about hydroelectric energy generation along the AAC and the lower Colorado River and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR.

3.7 Chapter VII: Environmental Commitments

3.7.1 Information in the AAC Final EIS/EIR

Chapter 7 of the AAC Final EIS/EIR delineates the environmental commitments for the Project.

3.7.2 New Information

An Environmental Commitment Plan (ECP) for the Project was approved on July 8, 2003 (see Attachment F). This plan summarizes the environmental commitments in the AAC Final EIS/EIR and ROD in a tabular format and allows for modifications of commitments or new commitments to be added by amendment. Modifications of commitments or new commitments are discussed in the various resources sections above. An amended ECP has not been produced because discussions are continuing over amending a number of commitments.

3.7.3 Conclusion

Although some commitments are in the process of being modified and new commitments will be added, the overall commitment to mitigate impacts that would result from the AAC Lining Project remains. The modified and new commitments do not constitute significant new circumstances or information relevant to public safety concerns and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR.

3.8 Chapter VIII: Consultation and Coordination

3.8.1 Information in the AAC Final EIS/EIR

Development of the Project alternatives and mitigation measures has been coordinated with the California water agencies, Federal and State agencies having responsibility for natural resources, the Quechan Indian Tribe, and the general public.

Numerous working sessions and meetings occurred among interested agencies and public meeting in the Project area. The U.S. also has held consultations with Mexico regarding the Project as stipulated in Commission Minute No. 242, Point 6, pursuant to the 1944 Water Treaty.

3.8.2 New Information

As described in this reexamination, various coordination and consultation meetings have occurred since completion of the AAC Final EIS/EIR. These include consultation and coordination meetings as part of the Recreation, Transportation, Access, Border Monitoring Planning process, international coordination meeting, and consulting to fulfill the cultural and biological resource commitments.

3.8.3 Conclusion

No additional public meetings or hearings are planned because the preferred alternative is still the Parallel Canal Alternative as identified in AAC Final EIS/EIR. Ongoing

coordination and consultation follows the commitment identified in the AAC Final EIS/EIR and is not new information that would require preparation of a supplemental EIS. The ongoing consultation and coordination has not resulted in significant new circumstances or information relevant to environmental concerns and bearing on the Project or its impacts.

3.9 Additional Resource Areas Addressed in the 1999 Reexamination

As described in Section 1.1, in light of renewed interest in the Project in 1999, Reclamation's Yuma Area Office prepared a reexamination and analysis of the AAC Final EIS/EIR. This reexamination included a discussion of two resource areas that were not addressed in the AAC Final EIS/EIR, Indian sacred sites and environmental justice. The results of the current reexamination and analysis are provided for these two additional resource areas.

3.9.1 Indian Sacred Sites

3.9.1.1 Information in the 1999 Reexamination

On May 24, 1996, President Clinton issued Executive Order 13007 on Indian Sacred Sites, which directs Federal land managers to promote accommodation of access to, and protect the physical integrity of Indian sacred sites. Access is currently provided to several known sacred sites located at Pilot Knob, and the Project would not affect the existing access.

3.9.1.2 New Information

There is no new information on Indian sacred sites. The Tribes have not identified any new sacred sites that meet the criteria in Executive Order 13007 in the Project area.

3.9.1.3 Conclusion

No significant new circumstances or information relevant to Indian sacred sites and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

3.9.2 Environmental Justice

3.9.2.1 Information in the 1999 Reexamination

On February 11, 1994, President Clinton issued Executive Order 12898 on Environmental Justice. The Executive Order applies to Federal actions and activities on minority and low-income populations within the U.S. and its territories and possessions. However, the Project is located in an isolated desert area with no U.S. minority or low-income communities located near or adjacent to the canal.

3.9.2.2 New Information

There is no new information on environmental justice. As was described in the 1999 reexamination, the Project is located in an isolated desert area with no U.S. minority or low-income communities located near or adjacent to the canal.

3.9.2.3 Conclusion

No significant new circumstances or information relevant to environmental justice and bearing on the Project or its impacts have occurred since completion of the AAC Final EIS/EIR in 1994.

SECTION 4

References

- California Employment Development Department. 2004. Annual Average Employment by County.
- Center for Biological Diversity. 2004. Letter from Center for Biological Diversity and Public Employees for Environmental Responsibility and the Sierra Club to Ms. Gale Norton, Secretary of the Interior and Mr. Jim Bartel, Field Supervisor Carlsbad Fish and Wildlife Office, Carlsbad, CA. July 19, 2004. Subject: Petition to list 16 insect species endemic to the Algodones Dunes, Imperial County, California as threatened or endangered pursuant to the Endangered Species Act.
- Coachella Valley Water District (CVWD). 2002. Coachella Valley Water Management Plan and State Water Project Entitlement Transfer Final Program EIR.
- Dimmit, Kirk. 2005. Meeting notes of Personal Communication between Kim Maloney, Ron Curiel, and Kirk Dimmit of Imperial Irrigation District. Imperial, CA. August 1, 2005.
- Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. Flat-tailed horned lizard Rangewide Management Strategy, 2003 revision.
- Harshbarger, J.W. 1977. Overview Report of the Hydrology and Water Development, Colorado Delta, United States and Mexico. Prepared for International Boundary and Water Commission, United States Section.
- Imperial County Air Pollution Control District (ICAPCD). 2005a. Imperial County Air Pollution Control District, Rules and Regulations. El Centro, CA. Revised November 8, 2005.
- _____. 2005b. CEQA Air Quality Handbook, Guidelines for Implementation of the California Environmental Quality Act of 1970, as amended. Prepared by Imperial County Air Pollution Control District. El Centro, CA. February 2005.
- Imperial Irrigation District (IID). 2006. Letter from Joseph B. Summers, Chairman, All-American Canal Lining Coordinating Committee to Russell W. Reichelt, Director, Technical Support Office, U.S. Bureau of Reclamation. Subject: All-American Canal Lining Project. January 4, 2006.
- International Boundary and Water Commission, United States Section. 1989. Letter from Narendra N. Gunaji, USIBWC Commissioner, to Edward Hallenbeck, Reclamation Regional Director. February 22, 1989. Subject: To Clarify the Position of the U.S. Section, International Boundary and Water Commission in Regard to Proposed Seepage Recovery Facilities along the All-American Canal Involving Pumping in lieu of Canal Lining.

- Mexican Delegation to the All American Canal Meeting (Mexican Delegation). 2005. Presentation entitled "Effects in Mexico of the Lining of the All American Canal (AAC)," at the Department of the Interior, Washington, D.C. April 19.
- The Metropolitan Water District of Southern California (Metropolitan). 2000. Letter to Mr. Tom Kirk, Executive Director, Salton Sea Authority. April 28, 2000. Subject: July 9, 1999 Final Report Entitled A Study on Seepage and Subsurface Inflows to Salton Sea and Adjacent Wetlands.
- _____. 2005. Regional Urban Water Management Plan.
- Nicol, Kim and Betsy Bolster. 2003. Personal Communication with Kim Nicol and Betsy Bolster, California Department of Fish and Game. In: Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. Flat-tailed horned lizard Rangewide Management Strategy, 2003 revision.
- National Water Commission of Mexico. 1991. Effects in Mexican Territory of Lining of the All American Canal. General Subdirectorate for Water Administration, General Groundwaters Office, Mexico City. Included as Attachment D of the 1994 AAC Final EIS/EIR Geohydrology Appendix. January.
- _____. 2005a. Hydrologic Effects Provoked in Mexican Territory by the Recovery of Infiltrated Water in the All American Canal in California, United States of America. Office of the Assistant Director, Groundwater Management, Mexico City. April.
- _____. 2005b. Red De Monitoreo Disenada Para Registrar Los Efectos Que Provoquen Las Obras Del Canal Todo Americano En Territorio Mexicano, En El Acuifero Del Valle De Mexicali, Baja California. Subdireccion General Tecnica, Gerencia De Aguas Subterranas. June.
- QSA Co-lead Agencies (Coachella Valley Water District, Imperial Irrigation District, The Metropolitan Water District of Southern California, and San Diego County Water Authority). 2002. Implementation of the Colorado River Quantification Settlement Agreement Final Program Environmental Impact Report.
- _____. 2003. Addendum to the Final Environmental Impact Report for Implementation of the Colorado River Quantification Settlement Agreement.
- RECON Environmental, Inc. 2005a. Letter of Transmittal to James Green, Environmental Officer, Lower Colorado Region, Bureau of Reclamation, Boulder, City, NV. July 20, 2005. Subject: Draft Pre-Construction Sensitive Plant Species Survey for the All-American Canal Lining Project, Imperial Irrigation District, Imperial, California, with graphics on CD.
- _____. 2005b. Letter to Mr. Michel Remington, Imperial Irrigation District, Imperial, CA. August 25, 2005. Subject: Draft Final Results of the Habitat Assessment for Sixteen Target Bird Species for the All-American Canal Project, Imperial County, California (RECON Environmental, Inc. Number 4140B).

- Rogers, Benjamin. 2005. Medill News Service, Northwestern University. Posted July 13, 2005. Slowing at Imperial Border.
- Romero, Reyes. 2005. Personal Communication between Ron Curiel and Reyes Romero of Imperial County Air Pollution Control District. August 3, 2005.
- San Diego County Water Authority (SDCWA). 2005. Urban Water Management Plan. San Diego, California.
- Tetra Tech, Inc. 1999. A Study on Seepage and Subsurface Inflows to Salton Sea and Adjacent Wetlands. Prepared for the Salton Sea Authority. July 9, 1999.
- U.S. Bureau of Reclamation (Reclamation). 1994a. All-American Canal Lining Project, Final Environmental Impact Statement/Environmental Impact Report. March 1994.
- _____ 1994b. All-American Canal Lining Project, Record of Decision. July 1994.
- _____ 1999a. Finding of No Significant Impact for Rulemaking for Offstream Storage of Colorado River Water and Development and Release of Intentionally Created Unused Apportionment in the Lower Division States (43 CFR Part 414). October.
- _____ 1999b. Reexamination and Analysis of the 1994 Final Environmental Impact Statement/Environmental Impact Report and Record of Decision for the All-American Canal Lining Project. Memorandum from Gary L. Bryant, Acting Area Manager to Regional Director, Bureau of Reclamation, Boulder City. July 1999.
- _____ 2000. Colorado River Interim Surplus Criteria Final EIS/EIR.
- _____ 2002. Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions Final EIS.
- _____ 2003a. 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 EIS.
- _____ 2003b. Memorandum from Deanna J. Miller, Director, Resources Management Office, Lower Colorado Regional Office, to Field Supervisor, Carlsbad Fish and Wildlife Office, Carlsbad, CA. October 6, 2003. Subject: Proposed Designation of Critical Habitat for *Astragalus magdalenae* var. *peirsonii* (Peirson's milk-vetch) Straddling the All-American Canal (50 CFR Part 17, RIN 1018-A177).
- _____ 2004. Letter from Robert W. Johnson, Regional Director, Lower Colorado Regional Office, to Field Supervisor, U.S. Fish and Wildlife Service, Attention: Ms. Carol Roberts, Carlsbad Fish and Wildlife Office, Carlsbad, CA. September 9, 2004. Subject: Request Confirmation of Conference Opinion as a Biological Opinion (CFO# 1-6-96-F-12) for Peirson's Milk-Vetch (PMV) (*Astragalus magdalenae* var. *piersonii*) for the All-American Canal Lining Project (Project), Imperial County, California.

- _____ 2005a. Letter from Deanna J. Miller, Director, Resources Management Office, Lower Colorado Regional Office, to Mr. Jim Bartel, Field Supervisor, Carlsbad Fish and Wildlife Office, Carlsbad, CA. January 25, 2005. Subject: Request for Confirmation of Conference Opinion (1-6-96-F-12) as a Biological Opinion for Peirson's Milk-Vetch (*Astragalus magdalenae* var. *peirsonii*) for the All-American Canal Lining Project, Imperial County, California (Your Office Letter Dated November 15th, 2004).
- _____ 2005b. Annual Operating Plan for Colorado River Reservoirs, 2006.
- _____ 2005c. Letter from Deanna J. Miller, Director, Resources Management Office, Lower Colorado Regional Office, to Mr. Jim Bartel, Field Supervisor, U.S. Fish and Wildlife Service, Region 1, Carlsbad Fish and Wildlife Office, Attention: Ms. Carol Roberts, Carlsbad, CA. December 22, 2005. Subject: Request Confirmation of Conference Opinion (CFO#1-6-9-96-F-12) as a Biological Opinion (BO) for Peirson's Milk-vetch (PMV) (*Astragalus Magdalenae* var. *peirsonii*) for the All-American Canal Lining Project (Project), Imperial County, California (Your Letter Dated November 15, 2004 and the Bureau of Reclamation Response letter Dated January 25, 2005).
- _____ 2006. Clean Air Act Conformity Analysis and Record of Non-Applicability (RONA) for Construction of the All American Canal Lining Project. January 9.
- U.S. Bureau of Reclamation and the Coachella Valley Water District (Reclamation and CVWD). 2001. Coachella Canal Lining Final EIS/EIR.
- U.S. Bureau of Reclamation and the Imperial Irrigation District (Reclamation and IID). 2002. Imperial Irrigation District Water Conservation and Transfer Project Final EIS/EIR.
- U.S. Bureau of Reclamation and the Salton Sea Authority (Reclamation and the Salton Sea Authority). 2000. Draft Salton Sea Restoration Project Environmental Impact Statement/Environmental Impact Report. January.
- U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and The Metropolitan Water District of Southern California (Reclamation, Service and Metropolitan). 2004. Lower Colorado River Multi-Species Conservation Program Final EIS/EIR.
- U.S. Fish and Wildlife Service (Service). 1988. Fish and Wildlife Coordination Act Report, All-American Canal Feasibility Study (Supplement). January.
- _____ 1993. Final Fish and Wildlife Coordination Act Report, All-American Canal Lining Project. September.
- _____ 1996. Memorandum from Acting Field Supervisor, Ecological services - Carlsbad Field Office, Carlsbad, CA. to Manager, Environmental Compliance Group, Bureau of Reclamation, Lower Colorado Regional Office, Boulder city, NV. February 8, 1996. Subject: Biological and Conference Opinion for the All American Canal Lining Project, Imperial County, California (CFO# 1-6-96-F-12/VFO#1-8-94-F-44)

- _____ 2002a. Birds of Conservation Concern 2002 List (Species within the Jurisdiction of the Carlsbad Fish and Wildlife Office). Carlsbad Fish and Wildlife Office, CA.
- _____ 2002b. Final Recovery Plan for the Southwestern Willow Flycatcher. Southwest Region, Albuquerque, NM.
- _____ 2003. Availability of Birds of Conservation Concern 2002; Notice of availability. Federal Register 68(25):6179.
- _____ 2004. Memorandum from Assistant Field Supervisor, Carlsbad Fish and Wildlife Office, Fish and Wildlife Service, Carlsbad, CA, to Regional Director, Lower Colorado Region, Bureau of Reclamation, Boulder City, NV, (Attn: Environmental Compliance Group Manager). November 15, 2004. Subject: Request for Confirmation of Conference Opinion (1-6-96-F-12) as a Biological Opinion for Peirson's Milk-Vetch (*Astragalus magdalenae* var. *peirsonii*) for the All-American Canal Lining Project, Imperial County California.
- _____ 2005a. Email from Mike Green, Regional Landbird Biologist and Tami Tate-Hall Migratory Bird Treaty Act Coordinator, USFWS Pacific Region, Portland, OR, to James Green, Regional Environmental Officer, Lower Colorado Region, Boulder City, NV. August 4, 2005.
- _____ 2005b. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*); Final Rule. 50 CFR Part 17. October 19. Federal Register Vol. 70, No. 201, Wednesday, October 19, 2005, Rules and Regulations Page 60886-61009.
- _____ 2006a. Memorandum from Assistant Field Supervisor, Carlsbad Fish and Wildlife Office, Fish and Wildlife Service, Carlsbad, CA, to Regional Director, Lower Colorado Region, Bureau of Reclamation, Boulder City, NV (Attn: Environmental Compliance Group Manager). January 10, 2006. Subject: Request for Confirmation of Conference Opinion (1-6-96-F-12) as a Biological Opinion regarding the Effects of the All-American Canal Lining Project on the Threatened Peirson's Milk-vetch (*Astragalus magdalenae* var. *peirsonii*).
- _____ 2006b. Memorandum from Acting Manager, California-Nevada, Operations Office, Fish and Wildlife Service, Sacramento, CA, to Regional Director, Lower Colorado Region, Bureau of Reclamation, Boulder City, NV. January 11, 2006. Subject: Endangered Species Act Considerations in Mexico for the All-American Canal Lining Project.
- U.S. Fish and Wildlife Service. Division of Migratory Bird Management. 2001. Executive Order for the Conservation of Migratory Birds: Questions and Answers.
- U.S. Secretary of the Interior (Secretary). 2003a. Allocation Agreement Among the United States of America, The Metropolitan Water District of Southern California, Coachella Valley Water District, Imperial Irrigation District, San Diego County Water Authority, the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission

- Indians, the San Luis Rey River Indian Water Authority, the City of Escondido and Vista Irrigation District. Dated October 10, 2003.
- _____ 2003b. Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for purposes of Section 5(B) of Interim Surplus Guidelines. Dated October 10, 2003.
- _____ 2004. Letter from Gale A. Norton, Secretary of the Interior to Honorable Alberto Cardenas Jimenez, The Secretary of Environment and Natural Resources of Mexico, Mexico City, Mexico. November 19, 2004. Subject: Response to letter of September 1, 2004, concerning the lining of a portion of the All American Canal located in the Imperial County of Southern California, United States of America. 3 pages and courtesy translation of Mexican letter dated September 1, 2004.
- Wright, G.R. 1993. Flat-tailed horned lizard status report - September 1993. BLM Report, El Centro Resource Area, California. In: Flat-tailed Horned Lizard Interagency Coordinating Committee. 2003. Flat-tailed horned lizard Rangelwide Management Strategy, 2003 revision.