Appendices

Introduction

The appendices to the Salton Sea Species Conservation Habitat Project (SCH Project) Environmental Impact Statement/Environmental Impact Report (EIS/EIR) include information directly needed to assist agencies and the general public in their review of the EIS/EIR. These appendices document that appropriate procedures were followed to develop the scope and contents of the EIS/EIR (Appendices A and B); provide technical information specifically used to support the Project description or provide additional detail regarding Project operations (Appendices C, D, E, and F); and provide substantial evidence that supports the conclusions reached in the EIS/EIR (Appendices G, H, I, J, and K). The list of appendices provided below is followed by a brief description of the purpose of each:

A Scoping Process

B Alternatives Development Process

C Geotechnical Investigations

D Project Operations

E Monitoring and Adaptive Management Framework

F Mosquito Control Plan

G Air Quality Documentation

H Special-Status Species Evaluated but not Affected by the SCH Project

I Selenium Management Strategies

J Summary of Special Studies Supporting the EIS/EIR Impact Analysis

K Corps Section 404 Permit Projects in the HUC 8 Watershed

L Tribal Consultation and Coordination

Appendix A Scoping Process

This appendix includes the Notice of Intent and Notice of Preparation prepared by the United States Army Corps of Engineers (Corps) and California Department of Natural Resources, respectively. These notices provided information regarding the SCH Project's nature and its anticipated impacts, and they informed interested agencies, Stakeholders, and members of the general public of the intent to prepare a joint EIS/EIR assessing the Project impacts. These notices also described the procedures to be followed to submit comments on the scope and contents of the EIS/EIR, either in writing or verbally at four public meetings. This appendix also includes a scoping report that summarizes the comments that were received.

Appendix B Alternatives Development Process

This appendix outlines the procedures that were followed in developing the alternatives that are analyzed in this EIS/EIR. It includes a description of the potential sites and Project components that originally were considered, as well as reasons that some of them were eliminated.

Appendix C Geotechnical Investigations

This report presents the results of the preliminary geotechnical investigation for the SCH Project. The preliminary investigation was intended to provide a general characterization of on-site soil conditions and to provide geotechnical engineering criteria for preliminary design, which is the basis for the Project description in the EIS/EIR. The findings and conclusions presented in this report are not intended for final design. A more detailed investigation would be conducted for the final berm alignment, berm configurations, borrow sources, and anticipated construction methodologies.

Appendix D Project Operations

The SCH ponds are intended to be operated in a manner that would both provide in-kind replacement for some of the near-term habitat losses at the Salton Sea and answer key questions regarding shallow water habitat development and management as part of a long-term Salton Sea restoration program. Operations would have to balance habitat requirements necessary to achieve desired objectives against environmental constraints (physical, water quality, and climatological conditions), potential impacts (e.g., toxicity, disease vectors), and compatibility with adjacent land uses, other habitat values, and applicable regulations. This appendix provides an overview of several operations scenarios that could be used to provide suitable habitat and to test different scenarios as part of the SCH Project's "proof-of-concept" aspect.

Appendix E Monitoring and Adaptive Management Framework

The two goals of the SCH Project are (1) to provide aquatic habitat to support fish and wildlife species dependent on the Salton Sea and (2) to develop and refine information needed to successfully manage the SCH Project. The SCH Project is intended to serve as a proof of concept for the long-term restoration envisioned for the Salton Sea and, therefore, would be developed and operated consistent with the principles of adaptive management. The purpose of this appendix is to present a monitoring and adaptive management framework to guide evaluation and improved management of the newly created habitat, as well as to inform future restoration. Because the SCH Project has not reached final design or construction, this document does not include the detailed protocols and site-specific sampling design necessary for actual implementation. A more detailed monitoring plan and decision-making process would be developed should the SCH Project be constructed.

Appendix G Air Quality/Greenhouse Gases Documentation

This appendix includes the Imperial County Air Pollution Control District, Regulation VIII, Fugitive Dust Control Measures, which are required to be implemented to minimize impacts from fugitive dust emissions. It also includes the emissions calculations used to support both the air quality and greenhouse gas emissions/climate change analyses.

Appendix H Special-Status Species Evaluated but not Affected by the SCH Project

This appendix explains why a number of special-status species that were evaluated would not be affected if the SCH Project were implemented.

Appendix I Selenium Management Strategies

Selenium, a naturally occurring element, is present in the water, sediments, and biota of the Salton Sea ecosystem. Selenium can cause adverse effects when present at elevated concentrations in the food web, especially on the reproduction of birds and fish. One uncertainty is whether the SCH Project could increase the probability and magnitude of selenium impacts relative to existing and expected future conditions. This appendix evaluates the potential selenium exposure and risks from the SCH Project on ecological receptors (primarily aquatic and benthic invertebrates, fish, and birds); identifies measures to avoid, reduce, and mitigate potential impacts; and outlines monitoring that would support adaptive management of selenium risk at the SCH Project.

Appendix J Special Studies Summary

The SCH Project is being designed to support wildlife dependent on the Salton Sea and to minimize negative impacts on wildlife or humans. The Sea's environmental conditions are often extreme and can be challenging for building habitat and maintaining fish and wildlife populations. The State of California contracted for specialized studies to address key uncertainties for the SCH Project's design, impact analysis, and operation. This appendix summarizes various studies including:

- Hydrologic modeling – explored how different potential pond depths and configurations, source waters, and water operations could affect saltwater balance in ponds and expected water quality conditions (temperature, dissolved oxygen).
- Fish tolerance study – A laboratory experiment exposed different tilapia species to various combinations of salinity and temperature to look at survival tolerances to inform design of operational scenarios and selection of fish species for stocking.
- Contaminants in water and sediments – Another issue is potential toxicity impacts from contaminants in sediments or water at the proposed SCH ponds. Sediment and water samples were collected from the alternative SCH sites and concentrations measured for selenium, arsenic, boron, and pesticides.
- Selenium ecorisk modeling – Selenium in the sediment and water could contribute to toxicity risks to the ecosystem and humans through accumulation in the sediment and cycling through the food web. Ecorisk modeling was conducted to evaluate the potential risk of transfer and bioaccumulation in the food web.
- Selenium treatment – Pilot studies are underway to evaluate the potential for using vegetation in constructed wetlands to help remove selenium from water that could supply the SCH ponds.

Appendix K Corps Section 404 Permit Projects in the HUC 8 Watershed

This appendix includes a list of section 404 permits issued by the Corps in the Salton Sea watershed where the SCH Project would be located.

Appendix L Tribal Consultation and Coordination

As part of its Section 106 consultation process, the Corps requested information regarding cultural and Native American resources in the SCH Project area from the Torres Martinez Desert Cahuilla Indians, Quechan Indian Nation, Manzanita Band of the Kumeyaay Nation, La Posta Band of Mission Indians, Kwaaymii Laguna Band of Mission Indians, Kumeyaay Cultural Heritage Preservation, Fort Yuma Quechan Nation, Ewiiaapyaap Tribal Office, Cocopah Museum, Campo Kumeyaay Nation, Augustine Band of Cahuilla Mission Indians, and the Ah-Mut-Pipa Foundation. Appendix L contains copies of the consultation letters sent by the Corps and responses from the tribes received to date.

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