

BIOLOGICAL ASSESSMENT

for California WaterFix

[Cover / Title Page / Table of Contents](#)

[Chapter 1: Introduction](#)

[Chapter 2: Consultation History](#)

UPDATED [Chapter 3: Description of the Proposed Action](#)

UPDATED [Chapter 4: Action Area and Environmental Baseline](#)

UPDATED [Chapter 5: Effects Analysis for Chinook Salmon, Central Valley Steelhead, Green Sturgeon, and Killer Whale](#)

UPDATED [Chapter 6: Effects Analysis for Delta Smelt and Terrestrial Species](#)

[Chapter 7: Effects Determination](#)

APPENDICES:

[Appendix 1.A: Species Lists—U.S. Fish and Wildlife Service & Appendix 1.B: Species Lists—National Marine Fisheries Service](#)

[Appendix 3.A: Map Book for the Proposed Action](#)

[Appendix 3.B: Conceptual Engineering Report, Volume 1](#)

[Appendix 3.C: Conceptual Engineering Report, Volume 2](#)

[Appendix 3.D: Construction Schedule for the Proposed Action](#)

[Appendix 3.E: Pile Driving Assumptions for the Proposed Action](#)

UPDATED [Appendix 3.F: General Avoidance and Minimization Measures](#)

[Appendix 3.G: Geotechnical Exploration Plan – Phase 2](#)

[Appendix 4.A: Status of the Species and Critical Habitat Accounts](#)

[Appendix 4.A, Attachment 1: Riparian Brush Rabbit Habitat Assessment Photo Log](#)

[Appendix 4.B: 2009 to 2011 Bay Delta Conservation Plan EIR/EIS Environmental Data Report, December 2011](#)

[Appendix 5.A: CalSim II Modeling and Results](#)

[Appendix 5.B: DSM2 Modeling and Results](#)

[Appendix 5.B, Attachment 1: DSM2 Recalibration for Bay-Delta Conservation Plan](#)

[Appendix 5.B, Attachment 2: UnTRIM San Francisco Bay-Delta Model Sea Level Rise Scenario Modeling Report](#)

[Appendix 5.B, Attachment 3: DSM2 Sea Level Rise Corroboration](#)

[Appendix 5.B, Attachment 4: DSM2 Temperature Modeling](#)

[Appendix 5.B, Attachment 5 Incorporation of Daily Variability in the CalSim II and DSM2 Modeling](#)

[Appendix 5.C: Upstream Water Temperature Methods and Results](#)

[Appendix 5.D: Quantitative Methods and Detailed](#)

[Results for Effects Analysis of Chinook Salmon, Central Valley Steelhead, Green Sturgeon, and Killer Whale](#)

[Appendix 5.D, Attachment 1: Reclamation Salmon Mortality Model](#)

[Appendix 5.D, Attachment 2: SALMOD Model](#)

[Appendix 5.E: Essential Fish Habitat Assessment](#)

[Appendix 5.E, Attachment 1: Fall-/Late Fall-Run Chinook Salmon Water Temperature Threshold Analysis Results](#)

[Appendix 5.F: Selenium Analysis](#)

[Appendix 5.F, Attachment 1: Water and Bioaccumulation Modeling Supplemental Information](#)

[Appendix 5.G: Projects to Be Included in Cumulative Effects Analysis for the Conveyance Section 7 Biological Assessment](#)

[Appendix 6.A: Quantitative Methods for Biological Assessment of Delta Smelt](#)

[Appendix 6.B: Terrestrial Effects Analysis Methods](#)

[Appendix 6.C: Suisun Marsh Species](#)

FIGURES:

[Figure 6.2: Impacts to Riparian Brush Rabbit Modeled Habitat](#)

[Figure 6.3: Impacts to San Joaquin Kit Fox Modeled Habitat](#)

[Figure 6.4: Impacts to California Least Tern Modeled Habitat](#)

[Figure 6.5: Impacts to Western Yellow-Billed Cuckoo Modeled Habitat](#)

[Figure 6.6: Impacts to Giant Garter Snake Modeled Habitat](#)

[Figure 6.7: Impacts to California Red-Legged Frog Modeled Habitat](#)

[Figure 6.8: Impacts to California Tiger Salamander Modeled Habitat](#)

[Figure 6.9 Impacts to Valley Elderberry Longhorn Beetle Modeled Habitat](#)

[Figure 6.10: Impacts to Vernal Pool Crustacean Modeled Habitat](#)

[Figure 6.11: Impacts to Least Bell's Vireo Modeled Habitat](#)

ADAPTIVE MANAGEMENT PROGRAM:

UPDATED [Adaptive Management Program for the California Water Fix and Current Biological Opinions on the Coordinated Operations of the Central Valley and State Water Projects \(formerly Appendix 3.H\)](#)

NEW [Agreement for Implementation of an Adaptive Management Program for Project Operations](#)

NEW [Appendix 8: Implementation Schedule for the Adaptive Management Program](#)