



Phase 2 Report

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Acronyms

ACOE	U.S. Army Corps of Engineers
BAU	business as usual
BCDC	San Francisco Bay Conservation and Development Commission.
BDCP	Bay Delta Conservation Plan
BNSF	Burlington National Santa Fe
BREACH	Sacramento/San Joaquin Delta Breached Levee Wetland Study
CALFED	California Bay-Delta Authority
CALSIM	California Water Resources Simulation Model
CALVIN	California Value Integrated Network Model
CCF	Clifton Court Forebay
CDFG	California Department of Fish and Game
CE	Conservation Easement
CESA	California State Endangered Species Act
cfs	cubic feet per second
CH ₄	methane
CNDDB	California Natural Diversity Database
CNLM	Center for Natural Lands Management
CNPS	California Native Plant Society
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalents
CSC	Candidate Species of Concern
CVJV	Central Valley Joint Venture
CVP	Central Valley Project
cy	cubic yard
DCC	Delta Cross Channel

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DICU	Delta Island Consumptive Use
DMC	Delta-Mendota Canal
DOC	dissolved organic carbon
DOM	dissolved organic material
DP	shrub container size
DPS	distinct population segment
DRMS	Delta Risk Management Strategy
DWR	California Department of Water Resources
DWSC	Sacramento River Deep-Water Ship Channel
ea	each
EBMUD	East Bay Municipal Utilities District
EC	electrical conductivity
ECAT	Environmental Coordination and Advisory Team
EFH	Essential Fish Habitat
EOP	Emergency Operation Plan
ERP	Ecosystem Restoration Program
ERPP	Ecosystem Restoration Program Plan
ER&R	Emergency Response and Repair
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Federal Insurance Rate Map
fps	feet per second
ft	foot (feet)
GHG	greenhouse gases
GIS	Geographic Information System
H:V	horizontal to vertical ratio
Hg	mercury
HMP	Hazard Mitigation Program
HRG	Habitat Restoration Group
I-5	Interstate 5
ICF	Isolated Conveyance Facility
IEP	Interagency Ecological Program

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IFSAR	Interferometric Synthetic Aperture Radar
JESFF	J. E. Skinner Fish Facility
JS	Jones and Stokes, Inc.
JSA	Jones and Stokes Associates, Inc.
kg	kilogram
kV	kilovolt
LiDAR	Light Detecting and Ranging
MAF	million acre-feet
Marsh	Suisun Marsh
MeHg	methylmercury
MHHW	mean higher high water
MLLW	mean lower low water
mm	millimeters
MWD	Metropolitan Water District of Southern California
NAVD88	North American Vertical Datum of 1988
NAWMP	North American Waterfowl Management Plan
NBA	North Bay Aqueduct
NDNWR	North Delta National Wildlife Refuge
NDO	Net Delta Outflow
NMFS	National Marine Fisheries Service
NO ₂	nitrous oxide
NOAA	National Oceanic and Atmospheric Administration
NPV	net present value
NRCS	Natural Resources Conservation Service (a division of the USDA)
O.C.	On Center – refers to distances along the length of the river.
OGSC	Office of the Governor of the State of California
O&M	operation and maintenance
PC/PS	pre-cast, pre-stressed
PEIR/EIS	Programmatic Environmental Impact Report/Environmental Impact Statement
PFC	Pacific Flyway Council
PG&E	Pacific Gas and Electric Company
PL	Public Law

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PRBO	Point Reyes Bird Observatory
PWA	Philip Williams and Associates, Ltd.
RMA	Resource Management Associates
SAV	submerged aquatic vegetation
SEMS	Standardized Emergency Response System
SLT	Solano Land Trust
SMPA	Suisun Marsh Preservation Agreement
SOD	south of Delta
SPT	Standard Penetration Test
SRA	Shaded Riverine Habitat
SRCD	Suisun Resource Conservation District
SRRQ	San Rafael Rock Quarry
SWP	State Water Project
SWRCB	State Water Resources Control Board
TFF	Tracy Fish Facility
TOC	total organic content
TPL	Trust for Public Lands
UCS	Uniform Classification System
umhos/cm	micro-mhos per centimeter
UPL	Urban Project Levees
URS	URS Corporation
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
XS	cross section
WAM	Water Analysis Module
WGI	Washington Group International
WRP	Wetland Reserve Program
WSE	water surface elevation
YBF	Yolo Basin Foundation
YBWG	Yolo Bypass Working Group

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Definitions

Listed Species

A species which is a species which is listed as Federally Endangered, Federally Threatened, Federal Candidate species, California State Endangered, California State Threatened, California State Rare, California Department of Fish and Game (DFG) Species of Concern, California Native Plant Society Species Rare/Endangered in CA or elsewhere, California Native Plant Society Species Rare/Endangered in California and more common elsewhere.

Federally Listed Species

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as endangered or threatened. FESA defines “endangered” species as any species in danger of extinction throughout all or a significant portion of its range. A “threatened” species is any species that is likely to become an “endangered” species within the foreseeable future throughout all or a significant portion of its range. Additional special-status species include “candidate” species and “species of concern.” “Candidate” species are those for which the U.S. Fish and Wildlife Service (USFWS) has enough information on file to propose listing as endangered or threatened. “Species of concern” are those for which listing is possibly appropriate but for which the USFWS lacks sufficient information to support a listing proposal. A species that has been “delisted” is one whose population has met its recovery goal target and is no longer in jeopardy of extinction.

California State Listed Species

Section 2080 of the California Endangered Species Act (CESA) prohibits the “take” of state-listed threatened and endangered species. The CESA defines take as any action or attempt to hunt, pursue, catch, capture, or kill any listed species. If a proposed project may result in “take” of a listed species, a permit pursuant to Section 2080 of CESA is required from the California Department of Fish and Game (DFG). Take of state-listed species is authorized through Section 2081 through a permit process. Take can also be authorized through Section 2835 with an approved Natural Community Conservation Plan.

DFG

The DFG also designates “fully protected” or “protected” species as those that may not be taken or possessed without a permit from the Fish and Game Commission and/or the DFG. Species designated as fully protected or protected may or may not be listed as endangered or threatened.

Additional Protection:

Migratory Birds

The federal Migratory Bird Treaty Act (16 USC §703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, bird nests, and eggs. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, and violate the Migratory Bird Treaty Act.

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Wetlands

Executive Order 11990 requires federal agencies to take action to minimize the destruction or modification of wetlands by considering both direct and indirect impacts to wetlands that may result from federally funded actions.

Invasive Species

Under Executive Order 13112, projects that occur on federal lands or are federally funded must “subject to the availability of appropriations, and within administration budgetary limits,” use relevant programs and authorities to (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to, and control, populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; and (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded.”