

South Bay Salt Pond (SBSB) Restoration Project
FINAL Environmental Impact Statement/Environmental Impact Report

Lead Agencies: US Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG)

Cooperating/Responsible Agencies: California Coastal Conservancy (Conservancy), US Army Corps of Engineers (Corps), NASA Ames, Santa Clara Valley Water District (SCVWD), Alameda County Flood Control and Water Conservation District (ACFCWCD), San Francisco Bay Regional Water Quality Control Board (RWQCB), and San Francisco Bay Conservation and Development Commission (BCDC)

Project Abstract: The SBSB Restoration Project Area is located in South San Francisco Bay in northern California, in the counties of Alameda, Santa Clara, and San Mateo. The Project Area comprises 15,100 acres of salt ponds and adjacent habitats in South San Francisco Bay which USFWS and CDFG acquired from Cargill, Inc. in 2003.

This environmental document is both a Programmatic EIS/R covering the 50-year long-term plan as well as a Project-level EIS/R addressing the specific components and implementation of Phase 1. The EIS/R evaluates three program-level, long-term restoration alternatives as well as project-level Phase 1 actions. The three long-term restoration scenarios include the following: 1) Alternative A, the No Action Alternative; 2) Alternative B, the Managed Pond Emphasis Alternative (50:50 tidal habitat : managed ponds by area); and 3) Alternative C, the Tidal Emphasis Alternative (90:10 tidal habitat : managed ponds by area). These long-term restoration alternatives include habitat, flood management and recreation and public access components, and represent potential “end states” at Year 50 of the SBSB Restoration Project. Alternatives B and C are analyzed in this EIS/R as “bookends,” representing a range of outcomes from a 50:50 ratio to a 90:10 ratio of tidal habitat to managed pond. The two ends of the range are reasonable endpoints to potentially meet the Project Objectives and represent different trade-offs.

The SBSB Restoration Project would be implemented in a series of phases over many years, on the order of decades. Each phase would have its own project-level NEPA/CEQA documentation that would tier off of this programmatic EIS/R.

Adaptive management is an integral component of the SBSB Restoration Project and allows for lessons learned from earlier phases to be incorporated into subsequent phases as management plans and designs of future actions are updated. A key aspect of the adaptive management approach is to avoid adverse environmental impacts by triggering specific pre-planned intervention measures if monitoring reveals the ecosystem is evolving (responding to prior interventions) along an undesirable trajectory. Adaptive management is also used to maximize the ability to achieve the Project Objectives (benefits). *The ultimate mix and amount of tidal and managed pond habitats would likely lie between the two restoration bookends defined by Alternatives B and C.*

Final EIS/R Process: This Final EIS/R was prepared in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). This Final EIS/R includes revisions that were made in response to the comments received on the SBSB Restoration Project Draft EIS/R during the public review period as well as clarifications and minor corrections that were made by the lead agencies. Formal responses to the comments received on the Draft EIS/R are presented in Appendix O of this Final EIS/R.

The Council on Environmental Quality's (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations [CFR] 1503.1) states that after preparing a final EIS, the agency must obtain comments from federal agencies with jurisdiction over the project and request comments from state and local agencies, local tribes, and the public. USFWS will accept and consider comments on the Final EIS/R received within 30 days of publication of the Notice of Availability (NOA) in the Federal Register and will not proceed with implementation of the SBSB Restoration Project during this time period. USFWS expects to publish the NOA in the Federal Register in late December and issue a Record of Decision in the spring of 2008.

CEQA Guidelines 15089(b) states that “lead agencies may provide an opportunity for review of the final EIR by the public or by commenting agencies before approving the project. The review of a final EIR should focus on the responses to comments on the draft EIR.” Written responses will be provided to each public agency which commented on the Draft EIS/R at least 10 days prior to certifying the Final EIS/R in accordance with CEQA Guidelines Section 15088(b). It is anticipated that CDFG will issue a Notice of Determination in early 2008.

The Final EIS/R is available for public review on the SBSB Restoration Project website (<http://www.southbayrestoration.org>). Hard copies of the document are also available for public review by appointment at the Visitor Center, Don Edwards San Francisco Bay National Wildlife Refuge, 1 Marshlands Road, Fremont; at SCVWD’s administrative offices, 5750 Almaden Expressway, San Jose; at CDFG’s Region 3 office, 7329 Silverado Trail, Napa; and at the following libraries:

- Alviso Branch Library: 5050 North First Street, San Jose, CA 95002, (408) 263-3626;
- City of Mountain View Library: 585 Franklin Street, Mountain View, CA 94041, (650) 903-6337;
- Palo Alto Main Library: 1213 Newell Road, Palo Alto, CA 94303 (650) 329-2436;
- Menlo Park Library: 800 Alma Street, Menlo Park, CA 94025 (650) 330-2500;
- Sunnyvale Public Library: 665 West Olive Avenue, Sunnyvale, CA 94086, (408) 730-7300;
- Hayward Public Library: 835 C Street, Hayward, CA 94541, (510) 293-8685; and
- Fremont Main Library: 2400 Stevenson Boulevard, Fremont, CA 94538, (510) 745-1400.

Copies of the stand-alone Executive Summary on CD-ROM may be obtained by contacting Anna Schneider of the State Coastal Conservancy at (510) 286-1015 or e-mail at aschneider@scc.ca.gov.

Questions and comments on the SBSB Restoration Project may be directed to the following lead agency contacts:

- Mendel Stewart, USFWS, San Francisco Bay National Wildlife Refuge Complex, 9500 Thornton Avenue, Newark, CA 94560; or
- John Krause, California Department of Fish and Game, PO Box 47, Yountville, CA 94599.

South Bay Salt Pond Restoration Project

Final Environmental Impact Statement / Report

Volume 1

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Submitted to:



Prepared by:

EDAW
Philip Williams and Associates, Ltd.
H. T. Harvey and Associates
Brown and Caldwell
Geomatrix

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LIST OF ACRONYMS

ABAG	Association of Bay Area Governments
AC Transit	Alameda-Contra Costa Transit District
ACCWP	Alameda Countywide Clean Water Program
ACFCC	Alameda Creek Flood Control Channel
ACFCWCD	Alameda County Flood Control and Water Conservation District
ac-ft	acre-feet
ACWD	Alameda County Water District
AD	Anno Domini
ADA	Americans with Disabilities Act
ADF	Alternative Development Network
ADT	Average Daily Traffic
AF	Accumulation Factor
aka	also known as
AMM	Avoidance and minimization measures
AMP	Adaptive Management Plan
APC	Alviso Planned Community
APCO	Air Pollution Control Officer
APE	Area of Potential Effect
ATCM	Airborne Toxics Control Measure
B	Beneficial
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BART	Bay Area Rapid Transit
Bay	San Francisco Bay
Bay-Delta	San Francisco Bay / Sacramento – San Joaquin Delta
BC	Brown and Caldwell
BCDC	Bay Conservation and Development Commission
BFE	Base Flood Elevation
BC	Before Christ
bgs	below ground surface
BO	Biological Opinion
BP	Before Present
BPTCP	Bay Protection Toxic Cleanup Program
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARE	Community Air Risk Evaluation
CCAA	California Clean Air Act

CCTS	Central California Taxonomic System
CBC	California Building Code
CCMP	Comprehensive Conservation Management Plan
CDFG	California Department of Fish and Game
Central Bay	Central San Francisco Bay
CEQ	Council of Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHP	California Highway Patrol
CIP	Capital Improvement Plan
cm	Centimeters
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	Carbon Monoxide
Corps	U.S. Army Corps of Engineers
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CTR	California Toxics Rule
CWA	Clean Water Act
cy	cubic yard
CZMA	Coastal Zone Management Act
dB	decibels
dBA	A-weighted dB
Delta	San Francisco Bay Delta
DFIRM	Digital Flood Insurance Rate Map
DO	Dissolved oxygen
DOC	Dissolved Organic Carbon
DRERIP	Delta Regional Ecosystem Restoration Implementation Plan
DWR	Department of Water Resources
EBDA	East Bay Dischargers Authority
EBRPD	East Bay Regional Park District
EEC	Environmental Education Center
EHD	Environmental Health Department
EIR	Environmental Impact Report
EIR/EIS	Environmental Impact Report/Environmental Impact Statement
EIS	Environmental Impact Statement
EIS/R	Environmental Impact Statement/Report
ELER	Eden Landing Ecological Reserve
ELERRP	Eden Landing Ecological Reserve Restoration Project
ELG	Executive Leadership Group
EMT	Emergency Medical Technician

ENSO	El Niño Southern Oscillation
EO	Executive Order
EPAPD	East Palo Alto Police Department
ER-L	Effects Range-Low
ER-M	Effects Range-Median
ESL	Environmental Screening Level
far South Bay	portion of the South Bay south of the Dumbarton Bridge
FPPA	Farmland Protection Policy Act
FDEP	Florida Department of Environmental Protection
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Map
FIP	Federal Implementation Plan
FIS	Flood Insurance Study
ft	feet
FUSD	Fremont Unified School District
GMP	Groundwater Management Plan
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HALS	Historic American Landscapes Survey
HAP	Hazardous Air Pollutants
HUSD	Hayward Unified School District
Hz	hertz
I-	Interstate
IHg	inorganic mercury
IPCC	Intergovernmental Panel on Climate Change
ISP	Initial Stewardship Plan
km	kilometer
l	liter
LA&S	Light Air and Space Construction
Ldn	Day-Night Noise Level
Leq	Equivalent Noise Level
LEV	Low Emission Vehicle
LGRFPP	Lower Guadalupe River Flood Protection Project
LiDAR	Light Detection and Ranging
Lmax	Maximum Noise Level
Lmin	Minimum Noise Level
LOMR	Letter of Map Revision
LTMS	Long Term Management Strategy
LTS	Less than Significant
LTSM	Less than Significant with Mitigation
Lx	Statistical Descriptor
m	meter

MACT	Maximum Available Control Technology
MCL	Maximum Contaminant Level
MeHg	Methylmercury
MEI	Maximally Exposed Individual
mg	milligrams
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mgd	million gallons per day
MHW	mean high water
MHHW	mean higher high water
MLW	mean low water
MLLW	mean lower low water
mm	millimeter
mm/yr	millimeters per year
MMRP	Mitigation Monitoring and Reporting Program
MPFPD	Menlo Park Fire Protection District
m/s	meters per second
MSL	Mean Sea Level
MTC	Metropolitan Transportation Commission
MTL	Mean Tide Level
MVLA	Mountain View Los Altos High School District
MVWSD	Mountain View-Whisman School District
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NAVD	North American Vertical Datum
NCAR	Nutrient and Contaminant Analysis Report
NEBIGSM	Niles Cone & South East Bay Plain Integrated Groundwater and Surface Water Model
NESHAP	National Emissions Standards For HAPS
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NGO	Non-governmental Organization
NGVD	National Geodetic Vertical Datum
NHPA	National Historic Preservation Act
NHUSD	New Haven Unified School District
NMFS	National Marine Fisheries Service
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places

NUSD	Newark Unified School District
NWIC	Northwest Information Center
O&M	Operations and Maintenance
OAC	Old Alameda Creek
OAQ	Ozone Attainment Plans
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
PA	Programmatic Agreement
PAFB	Palo Alto Flood Basin
PAHs	polycyclic aromatic hydrocarbons
PASCO	Palo Alto Sanitation Company
PAUSD	Palo Alto Unified School District
PBDE	polybrominated diphenyl ether
PCBs	polychlorinated biphenyls
PEL	Probable Effects Level
PG&E	Pacific Gas & Electric Company
PMT	Project Management Team
POC	Particulate Organic Carbon
ppb	parts per billion
ppm	parts per million
ppt	parts per thousand
PM _{2.5}	Particulate Matter
PM ₁₀	Particulate Matter
PRBO	Point Reyes Bird Observatory
PWA	Philip Williams & Associates, Ltd.
Refuge	Don Edwards San Francisco Bay National Wildlife Refuge
RHA	Rivers and Harbors Act
RI	remedial investigations
RMP	Regional Monitoring Program
ROD	Record of Decision
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SamTrans	San Mateo County Transit
SBSP	South Bay Salt Pond
SCCFD	Santa Clara County Fire Department
SCCPRD	Santa Clara County Parks and Recreation Department
SCP	Spartina Control Program
SCVWD	Santa Clara Valley Water District
SEL	Single-Event [Impulsive] Noise Level
SFBAAB	San Francisco Bay Area Air Basin
SFBBO	San Francisco Bay Bird Observatory
SFBJV	San Francisco Bay Joint Venture
SFBNWR	San Francisco Bay National Wildlife Refuge

SFCCRMP	San Francisquito Creek Coordinated Resource Management and Planning
SFCJPA	San Francisquito Creek Joint Powers Authority
SFEI	San Francisco Estuary Institute
SFEP	San Francisco Estuary Project
SFPU	Sunnyvale Fire Protection Unit
SFRWQCB	San Francisco Bay Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJFD	San Jose Fire Department
SJUSD	San Jose Unified School District
SO ₂	Sulfur Dioxide
South Bay	South San Francisco Bay
SPF	Standard Project Flood
SPRR	Southern Pacific Railroad
sq-km	square kilometer
SR	State Route
SSC	Suspended sediment concentration
SSD	Sunnyvale School District
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TEL	Threshold Effects Level
THg	total mercury
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TPY	tons per year
UPRR	Union Pacific Railroad
US 101	U.S. Highway 101
USD	Union Sanitary District
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VTA	Santa Clara Valley Transportation Authority
WDR	Waste Discharge Requirement
WMI	Santa Clara Valley Watershed Management Initiative
WPCP	Water Pollution Control Plant
WRDA	Water Resources Development Act
WQO	water quality objectives
WWTP	Waste Water Treatment Plant
µg/kg	micrograms per kilogram

