

DRAFT FOR PUBLIC REVIEW
Compatibility Determination for South San Francisco Bay Shoreline Phase I Study
Don Edwards San Francisco Bay NWR

Use: Issuance of a right-of-way to the Santa Clara Valley Water District (SCVWD) in order for the US Army Corps of Engineers (USACE) to construct and the SCVWD to subsequently operate and maintain an engineered flood risk management levee along the eastern border of Pond A12/13 and the southern border of Pond A16 on the Don Edwards San Francisco Bay National Wildlife Refuge, as part of the South San Francisco Bay Shoreline Study Phase 1 Project in Santa Clara County, California.

Refuge Name: Don Edwards San Francisco Bay National Wildlife Refuge, Alameda, Santa Clara and San Mateo Counties, California (see Figure 1).

Date Established: June 30, 1972

Establishing and Acquisition Authorities:

86 Stat. 399, dated June 30, 1972

An Act Authorizing the Transfer of Certain Real Property for Wildlife, or other purposes (16 U.S.C. 667b)

Endangered Species Act of 1973 (16 U.S.C. 1534)

Fish and Wildlife Act of 1956 (16 U.S.C. 742f)

Refuge Purpose(s):

“...for the preservation and enhancement of highly significant wildlife habitat...for the protection of migratory waterfowl and other wildlife, including species known to be threatened with extinction, and to provide an opportunity for wildlife-oriented recreation and nature study...” (86 Stat. 399, dated June 30, 1972).

“...particular value in carrying out the national migratory bird management program” 16 U.S.C. 667b (An Act Authorizing the Transfer of Certain Real Property for Wildlife, or other purposes).

“...to conserve (A) fish or wildlife which are listed as endangered species or threatened species....or (B) plants ...” 16 U.S.C. 1534 (Endangered Species Act of 1973).

“...for the development, advancement, management, conservation, and protection of fish and wildlife resources ...” 16 U.S.C. 742f(a)(4) “...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ...” 16 U.S.C. 742f (b)(1) (Fish and Wildlife Act of 1956).

National Wildlife Refuge System Mission: The mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation,

management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans” (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use: The proposed use is the issuance of a right-of-way to the SCVWD in order for the USACE to construct and the SCVWD to subsequently operate and maintain an engineered flood risk management levee along the eastern border of Pond A12/13 and the southern border of Pond A16 on the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge), as part of the South San Francisco Bay Shoreline Study Phase 1 Project (Study) in Santa Clara County, California. The Study is a multipurpose flood risk management and ecosystem restoration project, co-led by the USACE with the U.S. Fish and Wildlife Service (USFWS), in coordination with SCVWD, California State Coastal Conservancy (CSCC), and City of San Jose (Pond A18 owner).

The Recommended Plan/Locally Preferred Plan (as described under Alternative 3 in the Draft Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report, December 2014) includes an Alviso North levee alignment, San José–Santa Clara Regional Wastewater Facility (WPCP) South levee alignment, a 30:1 (1 foot of elevation rise for each 30 feet of horizontal distance) ecotone adjacent to Pond A12/13 and A18, restoration of ponds A9-15 and A18, and a tidal flood gate at Artesian Slough (Figure 2). The project will also include the construction of recreation features, including pedestrian bridges over the Union Pacific Railroad and the Artesian Sough, viewing platforms, benches, and interpretive signs. The Recommended Plan includes an engineered flood risk management levee, approximately 13.5 feet high, along existing salt pond berms—the eastern border of Pond A12 and southern borders of Ponds A16 and A18. This levee would provide protection against a 100-year storm event. The Locally Preferred Plan includes the addition of material to increase the levee height to 15.2 feet high as requested by the non-Federal sponsors (CSCC and SCVWD) to meet local requirements for flood risk management within Santa Clara County and allow for continued Federal Emergency Management Agency (FEMA) accreditation at the end of the study’s period of analysis (the year 2067).

Availability of Resources:

Adequacy of existing resources: Existing resources are adequate to administer this right-of-way. The primary staff responsible is the Refuge Manager (and other staff as appropriate) on the Don Edwards San Francisco Bay NWR, headquartered at Fremont, California.

Needed resources: No additional fiscal resources are needed to manage this use. The USFWS will no longer be responsible for maintaining the levee along Ponds A12 and A16 as they will be placed under the right-of-way permit that is the subject of the CD for the USACE to construct and the SCVWD to subsequently operate and maintain once it is constructed to the proposed engineered flood risk management levee height of 15.2 feet. The ecosystem restoration components will be designed and implemented in a manner consistent with the South Bay Salt Pond Restoration Project, which the USFWS is already an active participant. The USFWS will be using regular base allocations for the long-term operations and maintenance of the ecosystem restoration features and associated recreational features on Refuge lands (Ponds A9-15).

Operations and maintenance costs will be reduced significantly once the Ponds A9-15 are restored to tidal marsh, negating the need to maintain the system of dikes and water control structures that currently exist.

Anticipated Impacts of the Use:

A summary of the anticipated impacts of each alternative are listed below, from Table S-15 in the Draft Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report, December 2014 (Integrated Document). All alternatives, except No Action, will require the issuance of a right-of-way permit on Service lands. The column heading outlined in red is Alternative 3, the Recommended Plan/Locally Preferred Plan.

Table S-15. Summary of Environmental Effects

Characteristic Alternative Description	Alt. 1 No Action	Alt. 2 Alviso North with 13.5 foot Levee and Bench	Alt. 3 Alviso North with 15.2 foot Levee and 30:1 Ecotone	Alt. 4 Alviso Railroad with 15.2 foot Levee and Bench	Alt. 5 Alviso South with 15.2 foot and Bench
Ecological Attributes (Physical and Biological Aspects of Ecosystem)					
Water Quality	No impact	Negative short-term impacts from temporary increase in salinity in sloughs and remobilization of mercury in ponds and sloughs. Potential positive long-term benefits to surface water and sediment quality. Restoration of the ponds would reduce turbidity of waters flowing into the bay, provide energy dissipation that will reduce erosion and flooding, provide higher levels of dissolved oxygen in some ponds in the short term, and sequester water pollutants in the Bay.			
Air Quality/Greenhouse Gases	No impact	Minor negative construction-related impacts	Moderate negative construction-related impacts	Same as Alternative 2	

Tidal Aquatic Habitat Value (subtidal and mudflats)	No impact	Minor negative construction-related impacts; potential positive long-term effects. None of the action alternatives would have a substantial adverse effect on or cause a substantial decrease in the abundance or distribution of steelhead, Chinook salmon, green sturgeon, longfin smelt, estuarine species, or bay shrimp populations. None of the action alternatives would result in the substantial loss or degradation of designated essential fish habitat. The action alternatives would not interfere substantially with the movement of any native or migratory fish or impede the use of aquatic nursery sites.			
Marsh Habitat Value	Loss and fragmentation of historical habitat continues to strain communities	Substantial positive long-term effects; establishment of marsh communities in ponds takes longer to develop than for Alt. 3	Substantial positive mid- and long-term effects; additional ecotone provides for early evolution of marsh communities in ponds	Moderate permanent negative impacts on NCM existing marsh; benefits to ponds same as Alt. 2	Minor permanent negative impacts on NCM existing marsh; benefits to ponds same as Alt. 2
Upland Habitat Value	No impact	Minor negative temporary construction-related impacts. Minor permanent increases from levee construction.			
Threatened and Endangered Species	Continued strain on species from limited habitat and refugia	Substantial positive effects over the long term; potential for minor and temporary negative effects during construction.	Substantial positive mid- and long-term effects; potential for minor and temporary negative effects during construction.	Same as Alternative 2 for most species; however, moderate permanent negative impacts for species found in NCM.	Same as Alternative 2
Cultural and Aesthetic Environment					
Cultural Resources	No impact	No documented sites in the project area. Potential disturbance to unknown sites			
Noise	No impact	Minor negative temporary construction-related impacts			
Aesthetics	No impact	Minor negative temporary construction-related impacts. The expanded ecotone would provide shallow slopes along certain			Substantial construction and

		segments bayside of the levee, would include vegetation on these slopes, and would soften the contrast in form in contrast to a more traditional sharp-sloped sterile engineered levee. The project would also result in long-term impacts to the viewshed from the EEC; but those impacts would be minor because the levee is further away and the addition of new trails leading up to and along the crest of the levee will provide new opportunities for views.	permanent negative effects caused by levee proximity to Alviso community
Land Use	Low-lying areas adjacent to the bay would continue to be at significant risk to coastal flooding due to combined high tide and storm events, and sea level rise.	Project would benefit adjacent land use by providing high level of flood risk management. There is potential for temporary construction nuisance impacts—such as noise, dust, and visual impacts—on Refuge visitors, Alviso residents, and the use of the Alviso Marina.	Same as Alternative 2
Recreation	No impact	The ecosystem restoration component will result in a net loss of approximately 2.2 miles of trail once levees are breached to facilitate tidal marsh restoration, but would still support a useful Refuge trail system and a connection to other regional trails such as the Bay Trail system. The project would result in long-term enhancements for Refuge visitors by providing new pedestrian crossings of Artesian Slough and the Union Pacific Railroad tracks and providing benches, interpretive displays, and observation platforms.	Same as Alt 2

Alt.=Alternative; NCM = New Chicago Marsh; EEC = Environmental Education Center

Public Review and Comment:

Public review and comment are being solicited on this draft CD for 30 days. This CD will be available to the public for review by being posted on the Refuge website and at the Refuge

headquarters on 1 Marshlands Road, Fremont, California. Extensive public comment has already been received on the overall project scope and proposed alternatives, as follows:

The USACE and USFWS are acting as the co-lead agencies under the National Environmental Policy Act (NEPA), and the SCVWD is acting as the lead agency under the California Environmental Quality Act (CEQA). Additionally, the CSCC serves as a non-Federal cost-share partner and CEQA responsible agency for this project. The interagency project team commenced the South San Francisco Bay Shoreline Study's Phase 1 Interim Feasibility Study and Environmental Impact Statement/Environmental Impact process in January 2006. The public involvement program for the project has included a formal public scoping meeting on January 25, 2006 in Milpitas, CA, as well as ongoing stakeholder coordination and opportunities to comment on the scope and content of the proposed project through a stakeholder forum originally convened for the South Bay Salt Pond Restoration Project (SBSRP). Forum meetings occur once a year and are open to the public. The Draft Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report (Integrated Document) was released for public review and comment from December 19, 2014 through February 2, 2015. A public meeting on the Draft Integrated Document was held on January 14, 2015 in Alviso, CA. The comment period was subsequently extended until February 23, 2015. A total of 40 comment letters were received, including 9 letters requesting a time extension for the public comment period. The comments represented a variety of stakeholder groups as follows: Fed/State/County/City Agencies – 17, for-profit business – 2 (PG&E, Cargill), non-profit business – 12, private citizens - 9. A full description of the previous public review and comment process is found in Chapter 6.0, Public Involvement, Review, and Consultation in the Draft Integrated Document.

Determination (Check One Below):

Use is Not Compatible

Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The general conservation measures that will be implemented during proposed project activities to avoid and minimize adverse effects on sensitive species and habitats are listed in the South San Francisco Bay Shoreline Study's Draft Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report (December 2014) and Intra-Service Section 7 Endangered Species Act Final Biological Opinion/Conference Opinion (April 2015, and incorporated herein by reference. Those measures address the short-term and long-term anticipated impacts from the construction, operations, and maintenance of the levee, ecosystem restoration, and associated recreation features on listed species and other resources, refuge visitors, and refuge programs. Additional site- and time-specific measures will be further refined once the project is authorized by Congress (2016) and the levee design is finalized (2017).

Justification:

With the addition of some 11,000 acres acquired from Cargill, Inc. in 2003, the Don Edwards San Francisco Bay NWR gained responsibility for more than 70 miles of degraded non-engineered dikes and associated water control structures that were originally designed and constructed for commercial salt ponds. The dikes, which were created as early as the 1920s, were generally maintained to protect the salt pond production from tidal flooding, but were not meant to prevent flooding of adjacent communities. To date, the USFWS has received insufficient

funds to adequately maintain the non-engineered dike system, resulting in only periodic spot-repairs as needed. Currently, much of the land south of the ponds is urbanized, including much of Silicon Valley, residential communities, business parks, transportation corridors, landfills, the City of San Jose's wastewater treatment plant, and other critical infrastructure. Much of this area has subsided as much as 13 feet below sea level due to extensive groundwater withdrawal for agricultural uses. There is considerable risk for tidal flooding caused by having large areas of low-lying terrain that are bordered by severely degraded non-engineered dikes, which are inadequate to provide reliable flood risk management for the urbanized areas south of the ponds. Sea level rise will further exacerbate risks from tidal flooding caused by higher waters stressing the dikes.

Addressing flood risk in the Alviso area would also allow for potential restoration of close to 3,000 acres of former salt-production ponds to tidal habitats along with associated ecological functions and habitat for threatened and endangered species. Flood benefits (damages reduced) from the project will be fully realized simply as a function of levee height and engineered design features, replacing the non-engineered dikes that currently exist. The proposed use on the Don Edwards San Francisco Bay National Wildlife Refuge includes the construction of a 15.2 foot high engineered flood risk management levee along an existing dike alignment, a 30:1 ecotone adjacent to Pond A12, restoration of Ponds A9-15 to tidal marsh, and enhanced recreational features as part of the South San Francisco Bay Shoreline Study Phase 1 Project in Santa Clara County, CA. San Francisco Bay is one of the most extensive wetland ecosystems along the Pacific Coast, providing habitat for millions of migratory waterfowl and shorebirds along the Pacific Flyway as well as resident fish and wildlife. Since the area was settled in the 1880s, more than 85% of the tidal marshes have been filled, diked, or drained to support development, agricultural, and commercial salt-making. Since the 1960s, the trend shifted towards protection and restoration of the estuary, including the establishment of the Don Edwards SFBNWR, for the purposes of conserving and restoring tidal marsh habitats and supporting the recovery of endangered species, including the salt marsh harvest mouse (*Reithrodontomys r. raviventris*) and California Ridgway's rail (*Rallus obsoletus*, formerly *Rallus longirostris obsoletus*). The USFWS is consequently an active partner in the South Bay Salt Pond Restoration Project, the largest wetland restoration program on the West Coast. The project goals are to restore and enhance a mix of wetland habitats, provide wildlife-oriented public access and recreation, and provide for flood risk management in the South Bay. The proposed use meets all of these goals by addressing flood risk in the Alviso area which would also allow for potential restoration of close to 3,000 acres of former salt-production ponds, and the addition of recreation access and associated features to enhance wildlife-oriented activities.

Reevaluation Date: In accordance with Compatibility Policy (603 FW 2.11 H) we will reevaluate compatibility when the conditions under which the right-of-way is permitted change significantly, if there is significant new information regarding the effects of the use, and/or upon extension or termination of the rights-of-way permit. In addition, we will periodically monitor and review for compliance with permit terms and conditions.

NEPA Compliance for Refuge Use Decision:

_____ Categorical Exclusion without Environmental Action Statement

- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

References:

HDR Engineering, Inc. 2014. Draft South San Francisco Bay Shoreline Phase I Study Integrated Document: Shoreline Phase I Study, Draft Integrated Interim Feasibility Study, and Environmental Impact Statement/Report. Report to the U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service.

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Refuge Determination

Project Leader

Prepared/Approved by:

(Signature)

(Date)

Concurrence

Refuge Supervisor:

(Signature)

(Date)

**Assistant Regional
Director, Refuges:**

(Signature)

(Date)

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Figure 1. Don Edwards San Francisco Bay National Wildlife Refuge

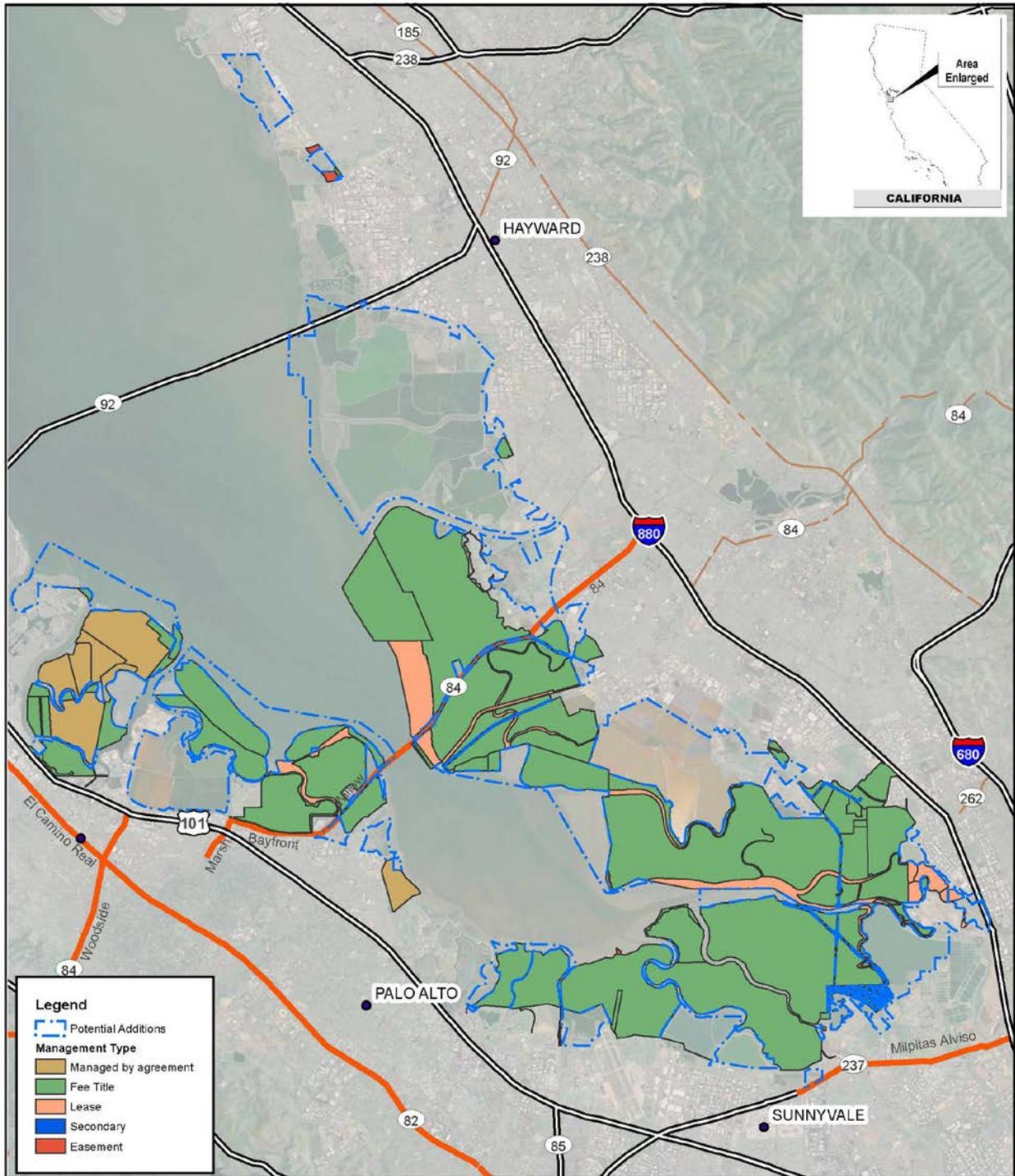


Figure 2. Proposed alignment for engineered flood risk management levee and associated ecosystem restoration features (Tentatively Selected Plan/Locally Preferred Plan for South San Francisco Bay Shoreline Study). The levee alignment and associated ecotone along Ponds A12-13 and A-16 are on Service property and will be the subject of the right-of-way permit. The remaining levee alignment and ecotone along Pond A-18 is on city property.

