

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

50 California Street • Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • www.bcdc.ca.gov

October 8, 2009

TO: Commissioners and Alternates

FROM: Will Travis, Executive Director (415/352-3653 travis@bcdc.ca.gov)
Max Delaney, Coastal Program Analyst (415/352-3668 maxd@bcdc.ca.gov)

SUBJECT: **Staff Recommendation on U.S. Fish and Wildlife Service's Material Amendment No. One to Consistency Determination No. CN 11-93 for the Lower Tubbs Island/Tolay Creek Marsh Enhancement Project**
(For Commission consideration on October 15, 2009)

Recommendation Summary

The staff recommends conditional concurrence with the U.S. Fish and Wildlife Service's (USFWS's) consistency determination for the Lower Tubbs Island/Tolay Creek Marsh Enhancement Project, which as conditioned, will result in the following:

1. Enhancement of approximately 65 acres of tidal marshlands within Lower Tubbs Island and Tolay Creek;
2. Breaching the Lower Tubbs Island levee at two locations to improve tidal connection within the site and installing two pre-fabricated bridges over these breaches to maintain the public access loop levee trail;
3. Modest repairs to the outboard levee along Lower Tubbs Island, as needed, to preserve public access until the Commission concurs with a public access plan for the Pablo Bay National Wildlife Refuge;
4. Public access use of an approximately 2,000-foot-long new public access trail along the Tubbs Island Setback Levee (Exhibit A) and the installation of one interpretive panel;
and



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5. Monitoring the tidal marsh enhancement areas for five years following the completion of construction to assess whether the anticipated enhancements are being achieved.

The proposed project will place approximately 2,200 cubic yards of fill over approximately 173,828 square feet (4.0 acres) of Bay tidal marsh to raise depressions and elevate the marsh plain in order to reduce ponding, improve tidal circulation and drainage, and improve habitat for special status species (such as the California clapper rail and the salt marsh harvest mouse) as well as other sensitive marsh species. Reducing ponding will also reduce mosquito production and help provide a long-term solution to controlling mosquitoes that reduces the need to apply chemical treatments to the marshes.

Table 1. Area of Tidal Marsh to be Enhanced (in acres)

Marsh	Habitat Type	Acres to Be Enhanced
Lower Tubbs Island	Tidal Marsh	35
Tolay Creek Marsh	Tidal Marsh	30
TOTAL		65

Table 2. Approximate Area and Length of Public Access To Be Created

Type of Public Access	Square Feet	Acres	Shoreline Length (miles)	Amount (US\$)	Yes/No
On-Site (new)	30,000	0.70	2,000		
Off-Site (new)	0	0	0		
Protected or Maintained					
Total	30,000	0.70	2,000		

NOTE: The trail area calculation in the public access table is based on a width of 15 feet.

Table 3. Approximate Fill Volumes and Area

Fill Purpose	Lower Tubbs Island Marsh		Tolay Creek Marsh		Upland (on Levee)		TOTAL (Square Feet)
	Cubic Yards	Square Feet	Cubic Yards	Square Feet	Cubic Yards	Square Feet	
Fill in The Bay (to fill depressions)	1,065	55,728	1,135	118,100	0	0	173,828
Fill in the Shoreline Band (to reinforce levees)	0	0	0	0	540	16,000	16,000

TOTAL	1,065	55,728	1,135	118,100	540	16,000	189,828 (4.39 Acres)
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Staff Note

Because the project involves a material amendment to an existing consistency determination, the format of the recommendation is different than recommendations for new consistency determinations. This recommendation includes the language of the existing consistency determination, as well as the changes proposed by the amendment. Language to be deleted from the consistency determination has been ~~struck through~~ and language to be added to the amended consistency determination has been underlined. Language that has neither been ~~struck through~~ nor underlined is language of the existing consistency determination that will remain unchanged with the adoption of Material Amendment No. One.

Staff Recommendation

I. Conditional Concurrence

A. The San Francisco Bay Conservation and Development Commission ~~agrees~~ concurs with the determination of the U.S. Fish and Wildlife Service (USFWS) that the following project is consistent with the Commission's Amended Management Program for the San Francisco Bay segment of the California coastal zone, subject to the USFWS's acceptance of the conditions contained in Section II below and the incorporation of those conditions into the project. If the USFWS fails to agree to the conditions and/or fails to incorporate the conditions into the project, the USFWS should treat this conditional concurrence as an objection and should notify the Commission immediately. If this conditional concurrence is converted into an objection, the provisions of Title 15 Code of Federal Regulations Sections 930.43, 930.44, and 930.45 shall apply.

B. Authorized Project

1. In the Bay and within the shoreline band:

a. Place approximately 10-20 cubic yards of dirt and approximately 140 cubic yards of 12-inch to 18-inch riprap along the shoreline to supplement existing riprap. Dirt will be taken from an upland area on-site and placed behind the existing wingwalls of two threatened water control structures. Erosion fabric will be used, and the top layer will consist of the new riprap.

2. In the Bay:

a. Within Lower Tubbs Island Marsh (Area 2)

(1) Excavate approximately 1,065 cubic yards of material over approximately 13,925 square feet (0.32 acres) to enlarge seven existing channels, create three new channels, and breach an interior levee in four locations to improve tidal circulation and drainage (Material Amendment No. One); and

(2) Place approximately 1,065 cubic yards of material over 55,728 square feet (1.28 acres) to fill in depressions (Material Amendment No. One).

b. Within Lower Tolay Creek Marsh (Areas 1 and 3)

- (1) Excavate approximately 1,000 cubic yards of material over approximately 10,890 square feet (0.25 acres) to enlarge one existing channel and create six new channels to improve tidal circulation and drainage (Material Amendment No. One);
- (2) Place approximately 1,135 cubic yards of material over approximately 118,100 square feet (2.71 acres) to fill in depressions (Material Amendment No. One); and
- (3) Excavate up to 250 cubic yards of material over approximately 6,705 square feet (0.15 acres) by lowering a 300-foot-long section of interior berm (Material Amendment No. One).

3. Within the shoreline band:

- a. Excavate approximately 290 cubic yards of material from the Lower Tubbs Island perimeter levee (within in Areas 1 and 3) over an area of approximately 1,650 square feet (0.04 acres) to create two 15-foot-wide breaches (Material Amendment No. One); and
 - b. Place up to 540 cubic yards of the material excavated from the interior berm lowering and Lower Tubbs Island levee breaches over an area of approximately 16,000 square feet (0.40 acres) on the outboard levee of Lower Tubbs Island adjacent to San Pablo Bay to repair and strengthen the levee (Material Amendment No. One).
 - c. **Along the Tubbs Island Setback Levee**
 - (1) Dedicate, use and maintain a new approximately 2,000-foot-long by 15-foot-wide (30,000 square feet) public access trail along the interior levee (the Tubbs Island Setback Levee), immediately east of the Lower Tubbs Island loop trailhead (Material Amendment No. One); and
 - (2) Install an interpretive panel at the east end of the Tubbs Island Setback levee trail (Material Amendment No. One).
- B. C. This amended conditional concurrence agreement is given based on the information submitted by or on behalf of the U.S. Fish and Wildlife Service, in its letter dated October 25, 1993, requesting a consistency determination for the original project, and in its application, dated April 8, 2009 and received in this office on April 16, 2009, requesting Material Amendment No. One, including all accompanying and subsequent correspondence and exhibits.
- D. The work authorized by this amended consistency determination must commence by November 1, 2010 and must be diligently pursued to completion by November 1, 2012, unless the terms of this amended consistency determination are changed by further amendment of this amended consistency determination (Material Amendment No. One).
- E. Material Amendment No. One will result in approximately 2,200 cubic yards of fill in the Bay over approximately 173,828 square feet (4.0 acres) to enhance tidal marshlands by improving tidal circulation. Most of the fill to be placed on the marsh plain would be excavated and dredged from within the project site. Approximately 540 cubic yards of material would be placed over an area of approximately 16,000 square feet (0.40 acres)

in the shoreline band to repair and reinforce the outboard levee along the southern edge of Lower Tubbs Island adjacent to San Pablo Bay at least until a public access plan for the Refuge has been completed and approved. The project will also maintain public access on the entire Lower Tubbs Island levee loop trail and will result in the addition of 2,000 linear feet of new public access on the Tubbs Island Setback levee immediately east of the project site (Material Amendment No. One).

II. Conditions

The authorization made herein shall be subject to the following special conditions, in addition to the standard conditions in Part IV:

A. Project Plans. The improvements authorized herein shall be built in general conformance with the document entitled, "Lower Tubbs Island and Tolay Creek Marsh Enhancement Plan" prepared by Wetlands and Water Resources, Inc. and dated March 9, 2009.

B. Marsh Restoration

1. Levee Breach Plan. Prior to the commencement of any enhancement activities at the Lower Tubbs Island marsh and the Tolay Creek marsh, pursuant to this amended authorization, the USFWS shall submit a plan for breaching the Lower Tubbs Island levee and constructing public access bridges across the breaches to be approved by or on behalf of the Commission. The plan shall contain the following: (1) calculations for determining the size of the levee breaches or pipe to be installed; (2) the amount of material removed to excavate the breaches; (3) an estimation of the amount of water entering the breaches at various tidal stages (Material Amendment No. One); and (4) details of the public access bridges.

C. Monitoring of Marsh Enhancement

1. Monitoring Schedule. Monitoring for all parameters shall be conducted prior to construction to establish baseline conditions and shall continue for five years following the completion of project construction to ensure that the project goals of improved tidal marsh habitat and decreased mosquito production are met. All biological and physical parameters, including hydrology, geomorphology, plant measurements and wildlife surveys will be monitored in years one, three and five following construction. Invasive species will be monitored in years three and five. Aerial photography of the project site and its interpretation for changes in hydrology and vegetation, mosquito monitoring, rail surveys, and ground-based photo-documentation shall take place every year for the five year monitoring period.

2. Monitoring Reports. Monitoring reports shall be submitted annually to the Commission by December 1st of each year. Monitoring shall generally follow the monitoring program described in the document entitled "Lower Tubbs Island and Tolay Creek Marsh Enhancement Plan", prepared by Wetlands and Water Resources, Inc. and dated March 9, 2009, and the submittal received on June 8, 2009, revising the monitoring plan. Should adverse conditions be identified during the five year monitoring period, the monitoring reports should propose potential corrective actions, and the USFWS shall take corrective action as specified by or on behalf of the Commission. Monitoring shall provide information on:

a. Hydrology and Geomorphology. The enhancement areas shall be monitored for improved hydrology and geomorphology, including whether current problem areas (i.e. where ponding occurs) are draining adequately with tidal cycles and whether enlarged and newly created channels provide unrestricted connection to tidal sources.

b. Vegetation. In areas where the project has enhanced tidal circulation, the monitoring report shall evaluate vegetation establishment at the enhancement

site(s) using aerial photographs and ground-truthing, report on the percent cover and height and timing of flowering of plants, and estimate relative species composition. These aerial photos will be included in the monitoring report. In addition the USFWS shall evaluate the relative abundance of native plant species compared with non-native plant. Reasonable efforts shall be made to eradicate and/or control invasive species, such as perennial pepperweed, for the duration of the monitoring period where feasible. The monitoring report should also evaluate the success of filling in the depression areas in reducing late season plant die-off.

- c. **Wildlife Use.** The monitoring report shall describe the results of wildlife surveys measuring wildlife abundance and species diversity.
 - d. **Mosquitoes.** The monitoring report should evaluate the effectiveness of the project in reducing mosquito populations and pesticide use. The reports shall include data on mosquito larvae abundance and contrast the number of pre- and post-construction pesticide treatments applied to the marshes. The USFWS shall coordinate with the Marin Sonoma Mosquito & Vector Control District in the monitoring of mosquitoes.
3. **Erosion.** The monitoring report shall evaluate the condition of the Lower Tubbs Island levee and the activities performed to maintain the levee and loop trail within its existing footprint, including the amount of material imported to repair eroded areas and the cost of these repairs.

D. Public Access

- 1. **Public Access Improvements.** Prior to completing the enhancement activities authorized by Material Amendment No. One, the USFWS shall provide the following public access improvements:
 - a. **Tubbs Island Setback Levee.** The USFWS shall make available for public access use a new 2,000-foot-long by fifteen-foot-wide (30,000 square feet) trail on the Tubbs Island Setback Levee, immediately east of enhancement area.
 - b. **Installation of Bridges.** The USFWS shall install two approximately seven-foot-wide by 25-foot-long, pre-fabricated wood and steel bridges across the two breaches to maintain the continuous loop trail around Lower Tubbs Island.
 - c. **Interpretive Panel.** The USFWS shall install an interpretive panel at the east end of the trail.
- 2. **Maintenance**
 - a. **Tubbs Island Setback Levee Trail.** The new 2,000-foot-long public access trail along the Tubbs Island Setback Levee, immediately east of Lower Tubbs Island and authorized by this amended consistency determination, shall be permanently maintained by and at the expense of the USFWS. Such maintenance shall include, but is not limited to, repairs to the path surface, mowing the trail at least two times a year, making repairs or replacement as needed of any public access amenities (such as signs), periodic cleanup of litter and other materials deposited along the trail, removal of any encroachments into the trail area, assuring that the public access signs remain in place and visible, and repairs to the levee trail

and other public access improvements that are damaged by future flooding, including and subject to approval by or on behalf of the Commission, raising land elevations or redesigning public access features to protect and ensure the usability of the setback levee trail and public access improvements, where appropriate. Within 30 days after notification by staff, the USFWS shall correct any maintenance deficiency noted in a staff inspection of the site.

- b. **Lower Tubbs Island Levee Trail.** Until the Commission has concurred with a consistency determination for a long-term public access plan for the San Pablo Bay National Wildlife Refuge (the estimated timeframe for the completion of this plan is within two to five years), the USFWS shall perform modest maintenance on the Lower Tubbs Island loop trail. Maintenance shall include, but is not limited to patching potholes and ruts, filling trail gaps, raising small sections of levee, repairing eroded areas, maintaining the two bridges across the breaches, and mowing the trail at least two times a year in order to maintain a usable approximately eight-foot-wide public access trail along the entire length of the loop trail.
3. **Reasonable Rules and Restrictions.** The USFWS may impose reasonable rules and restrictions for the use of the public access facilities authorized herein to correct particular problems that may arise. Such limitations, rules, and restrictions shall have first been approved by or on behalf of the Commission upon a finding that the proposed rules would not significantly affect the public nature of the area, would not unduly interfere with reasonable public use of the public access areas, and would tend to correct a specific problem that the USFWS has both identified and substantiated. Rules may include restricting hours of use and delineating appropriate behavior (Material Amendment No. One).

E. **Marsh Protection**

1. **Construction.** All construction operations shall be performed to prevent construction materials from falling into the Bay. In the event that such material escapes or is placed in an area subject to tidal action of the Bay, the USFWS shall immediately retrieve and remove such material at their expense.
2. **Water Quality.** As described in the Section 7 Consultation letter issued by the USFWS on May 20, 2009, the USFWS shall prepare a hazardous spill plan prior to construction that incorporates and describes Best Management Practices to be implemented to reduce potential impacts to water quality (Material Amendment No. One).
3. **Marsh and Upland Plant Protection During Construction.** The work authorized by this amended consistency determination shall be performed in a manner that will prevent, avoid, or minimize to the extent possible any significant adverse impact on any tidal marsh, other sensitive wetland resources, and existing native upland vegetation. If any unforeseen adverse impacts occur to any such areas as a result of the activities authorized herein, the USFWS shall restore the area to its previous condition, including returning the disturbed area to its original elevation and soil composition and, if the area does not revegetate to its former condition within one year, the USFWS shall seed all disturbed areas with appropriate vegetation consistent with plans approved by or on behalf of the Commission. The USFWS shall employ mitigation measures to minimize impacts to wetland areas, such as:

- (1) minimizing all traffic in marsh/mudflat areas; and (2) limiting traffic in wetland as much as possible to areas that will be excavated or filled (Material Amendment No. One).
4. **Removal of Excavated Material.** All dredged and excavated material must be used to fill depressions and raise the elevation of the marsh plain to enhance tidal circulation and reduce ponding, to stabilize the outboard and perimeter levee of Lower Tubbs Island, or removed from the project site for proper disposal outside of the Commission's jurisdiction (Material Amendment No. One).
 5. **Debris Removal.** All construction debris and any uncovered debris, such as concrete, asphalt, wood, plastics, etc., shall be removed from the project site for proper disposal outside of the Commission's jurisdiction. Excavated debris may be temporarily stored within the Commission's jurisdiction, provided measures are employed to assure that such material does not wash or erode into the surrounding marsh, waterways or ponds. In the event that any such material is placed in any area within the Commission's jurisdiction for an extended period (i.e. more than 60 days), the USFWS, its assigns, or successors in interest, or the owner of the improvements, shall remove such material, at its expense, within ten days after it has been notified by the Executive Director of such placement (Material Amendment No. One).
 6. **Protection of Special-Status Fish and Wildlife Species.** The USFWS shall take all precautions to avoid adverse impacts to special-status species such as the California clapper rail and the salt marsh harvest mouse. The USFWS shall implement all the conservation measures described in the Section 7 Consultation letter, issued by the USFWS on May 20, 2009, including having a biologist present during all construction activities and monitoring activities, inspecting construction footprint areas for salt marsh harvest mice prior to construction, removing pickleweed and other vegetation along equipment access routes, channel placement and enhancement locations, and at soil placement areas (where soil will be placed at a depth of greater than four inches), and training all personnel who access the site to identify and avoid direct and indirect disturbance to endangered species. A qualified biologist shall be present to monitor construction activities in and near areas known to be occupied by clapper rail, and shall have the authority to install or require additional wildlife protective measures such as fencing and noise buffers, as well as having stop work authority. Construction activities shall occur during the period of the year when the clapper rails are not known to be nesting, specifically between September 1 and February 1. If construction activities need to occur during the nesting period, a qualified biologist shall conduct pre-construction surveys up to 72 hours before construction begins, using survey methods approved by the USFWS. If individuals and/or nests are not located within 250 feet of the construction area, then construction may proceed. If individuals and or nests are located within 250 feet of the construction area, the USFWS shall be contacted and consultation shall be reinitiated (Material Amendment No. One).
- F. **Regional Water Quality Control Board - 401 Certification.** The USFWS shall comply with all the requirements of the Conditional Water Quality Certification for the Lower Tubbs Island and Tolay Creek Marsh Enhancement Project, issued on August 18, 2009, by the San Francisco Bay Regional Water Quality Control Board including minimizing disturbance and removal of vegetation, preventing debris, soil, silt, sand, cement, concrete,

wastes, oils, or other petroleum products from entering the Bay, and not operating equipment in channels or other waters where there is standing or flowing water (Material Amendment No. One).

- G. **Abandonment.** If, at any time, the Commission determines that the two public access bridges installed along the Lower Tubbs Island levee, as authorized by Material Amendment No. One, have been abandoned for a period of two years or more, or have deteriorated to the point that public health, safety or welfare is adversely affected, the Commission may require that the improvements be removed by the USFWS, its assignees or successors in interest, or by the owner of the improvements, within 60 days or such other reasonable time as the Commission may direct (Material Amendment No. One).
- H. **Certification of Contractor Review.** Prior to commencing any grading, demolition, or construction, the general contractor or contractors in charge of that portion of the work shall submit written certification that s/he has reviewed and understands the requirements of the amended consistency determination and the final BCDC-approved plans, particularly as they pertain to any public access or open space required herein, or environmentally sensitive areas (Material Amendment No. One).
- I. **Hold Harmless.** The USFWS shall hold harmless the Commission, all Commission members, Commission employees, and agents of the Commission from any and all claims, demands, losses, lawsuits, and judgments accruing or resulting to any person, firm, corporation, governmental entity, or other entity who alleges injuries or damages caused by work performed in accordance with the terms and conditions of this amended consistency determination. This condition shall also apply to any damage caused by flooding of or damage to property that is alleged to be caused as a result of some action or lack of action by the Commission growing out of the processing of and issuance of this amended consistency determination.

The USFWS also agrees to cooperate, to the extent allowed by law, in the submission of claims pursuant to the Federal Tort Claims Act against the United States for personal injuries or property damage resulting from the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his/her employment, arising out of this agreement. Further, the U.S. Fish and Wildlife Service agrees to perform all work under this agreement with reasonable diligence and precaution (Material Amendment No. One).

III. Findings and Declarations

- A. **Priority Use Designation.** The proposed project will be located in a Wildlife Refuge priority use area on San Francisco Bay Plan (Bay Plan) Map No. One. The project is designed to enhance approximately 65 acres of tidal marsh to improve habitat for special status and other sensitive marsh species. The project is located within the San Pablo Bay National Wildlife Refuge and actively managed by the U.S. Fish and Wildlife Service. The Commission finds that the project, as conditioned herein, is consistent with the priority use designation for the site (Material Amendment No. One).
- B. **Fill.** The Commission may allow fill only when it meets certain fill requirements identified in Section 66605 of the McAteer-Petris Act, which states, in part, that: (a) the public benefits from fill must clearly exceed the public detriment from the loss of water areas, and fill should be limited to water-oriented uses, such as wildlife refuges; (b) no alterna-

tive upland location exists for the fill; (c) the fill authorized should be the minimum necessary to achieve the purpose of the fill; (d) the fill should minimize harmful effects to the Bay including water volume, circulation, and quality, fish and wildlife resources, and marsh fertility; (e) the fill should be authorized when the applicant has valid title to the properties in question. Further, the Bay Plan Tidal Marshes and Tidal Flats policies state, in part, that "a minor amount of fill may be authorized to enhance or restore fish, other aquatic organisms or wildlife habitat if the Commission finds that no other method of enhancement or restoration except filling is feasible."

The project will result in 173,828 square feet (4.0 acres) of fill in Bay tidal marshes. Low lying areas will be filled to reduce ponding and thereby improve marsh plant health. The filled areas would remain tidal and are expected to support healthier plants within a few years.

- a. **Public Benefit.** The proposed fill will be used to enhance approximately 65 acres of tidal wetlands within the San Pablo Bay National Wildlife Refuge, a water-oriented use. The project will improve habitat and water quality within the marshes, thereby, contributing to the overall health of San Francisco Bay, which benefits the public. In addition, enhancing marsh functions will improve the public's experience of walking the trails at the site by providing more attractive habitat supporting more wildlife, eliminating areas that currently die back each year, and reducing the number of mosquitoes.

- b. **Alternative Upland Location.** There is no alternative upland location for the project because the purpose of the project is wetland enhancement within an existing tidal marsh.
- c. **Minimum Amount Necessary.** The consistency determination states that “the configuration and nature of the enhancement activities proposed in the project area are based in large part on the existing topography and hydrology of the site, and what alterations would need to be made to improve tidal flow and water circulation. A variety of alternative, on-site configurations were assessed during project design to determine which would best meet the objectives of the proposed project. The volume and area of low elevation marsh plain that would be subject to fill is based on the site design that best meets those objectives.” A small amount of additional fill, up to approximately 540 cubic yards of solid fill, will be placed over an area of approximately 16,000 square feet (0.40 acres) along the outboard levee of Lower Tubbs Island to provide shoreline protection and protect a portion of the existing public access trail. The majority of fill will be generated from on-site activities, such as levee and berm lowering and channel excavation, and will be redistributed within the site.
- d. **Effects on Bay Resources.** The consistency determination states that, “the proposed fill will be used to enhance existing tidal marsh habitat by raising depressions within the marsh to improve circulation and drainage and reduce ponding.” The consistency determination also states that “the soil placement areas were carefully selected based on two criteria: (1) low elevation depressions that routinely produce shallow ponded conditions, and (2) location along pre-established equipment access routes so that additional marsh trampling by construction equipment is not needed to place the material.” The consistency determination further states “soil deposition within the project area will not result in a net loss of wetlands habitat in any focus area, and over the long term, will greatly improve habitat function.” Fill will also be placed to reinforce the outboard levee of Lower Tubbs Island, which will protect the existing tidal habitat within the island from erosion and flooding. Special Condition II-E is included in this amended consistency determination to ensure that the USFWS will employ best management practices and perform the proposed enhancement activities in such a manner as to avoid impacts to the marshes and to wildlife.

In addition to Section 66605 of the McAteer-Petris Act regarding effects of fill on water volume and circulation, the Bay Plan policies on Water Surface Area and Volume state that, “[w]ater circulation in the Bay should be maintained, and improved as much as possible. Any proposed fills, dikes or piers should be thoroughly evaluated to determine their effects on water circulation and then modified as necessary to improve circulation or at least to minimize any harmful effects.” The proposed project will place fill to elevate depressions in the marsh plain which will result in better drainage and consequently increased tidal circulation throughout the project site, increasing plant health and improving habitat conditions for clapper rails, black rails, salt marsh harvest mice and other marsh-dependent species.

The USFWS will also monitor the enhancement areas for five years following the completion of construction to ensure that the proposed enhancement goals have

been met. Special Condition II-C is included in this amended consistency determination to ensure that appropriate monitoring occurs for the proposed project and that monitoring reports are submitted to the Commission.

- e. **Valid Title.** The USFWS acquired the Lower Tubbs Island Marsh from the Nature Conservancy in 1978. The Tolay Creek marsh is owned by the State Lands Commission and is managed by the USFWS under a 66-year lease that was issued in 1980.

The Commission finds that the project proposed in Material Amendment No. One, as conditioned herein, is consistent with the Commission's law and policies regarding fill in the Bay because the project will result in the minimum fill necessary to successfully enhance sections of the Lower Tubbs Island and Tolay Creek marshes, has been designed to minimize impacts to the Bay environment, will be constructed in a manner to protect persons and property against unstable soil and flooding conditions, and will occur at a site to which the project sponsor holds valid title.

- C. **Maximum Feasible Public Access.** Section 66602 of the McAteer-Petris Act states that "...existing public access to the shoreline and waters of the...[Bay] is inadequate and that maximum feasible public access, consistent with a proposed project, should be provided." Section 66602 of the McAteer-Petris Act states that "...existing public access to the shoreline and waters of the...[Bay] is inadequate and that maximum feasible public access, consistent with a proposed project, should be provided." Further, the Bay Plan Public Access Policy 1 states: "[a] proposed fill project should increase public access to the Bay to the maximum extent feasible, in accordance with the policies for Public Access to the Bay." The Bay Plan Public Access Policy 6 states, in part: "[p]ublic access improvements provided as a condition of any approval should be consistent with the project and the physical environment...and provide for the public's safety and convenience. The improvements should be designed and built to encourage diverse Bay-related activities and movement to and along the shoreline should permit barrier free access for the physically handicapped..., include an ongoing maintenance program, and should be identified with appropriate signs." The Bay Plan Public Access Policy 8 states, in part: "[a]ccess to and along the waterfront should be provided by walkways, trails, or other appropriate means to connect the nearest public thoroughfare where convenient parking or public transportation may be available." The Bay Plan Public Access Policy 12 states, in part: "public access should be integrated early into the planning and design of Bay habitat restoration projects to maximize public access opportunities and to avoid significant adverse effects to wildlife."

The project will breach the Lower Tubbs Island levee in two locations to provide increased tidal connectivity between the Lower Tubbs Island marsh and the Tolay Creek marsh and to generate fill material to place on the outboard levee. There is an existing 2.65-mile public access loop trail that runs atop this levee. In order to keep the loop trail intact, the USFWS will install two approximately seven-foot-wide by 25-foot-long, pre-fabricated wood and metal bridges to span the breaches. In addition, the USFWS will perform modest maintenance activities on the levee loop trail in the future as needed, to ensure that the trail remains usable, including patching potholes and ruts, filling trail gaps, and repairing eroded areas, along with maintaining the bridges. The USFWS has concerns about the long-term sustainability of the Lower Tubbs Island levee, and is currently developing a comprehensive public access plan for the San Pablo Bay National Wildlife Refuge. The USFWS will continue to maintain the loop trail until this public

access plan has been finalized and approved by the Commission. The future public access plan may call for the elimination of significant portions of this loop trail. While this loop trail has been used by the public for many years, it is not required by any Commission permit or consistency determination.

The project will also increase public access in the Lower Tubbs Island area by making available for public use a new 2,000-foot-long by 15-foot-wide trail along the Tubbs Island Setback levee, immediately east of the enhancement site, and providing a new interpretive panel at the end of the trail. Maintenance activities will include mowing at least twice a year (or as needed during the growing season), monthly checks and repair of any signage and interpretive panels, and *Lepidium latifolium* eradication (May through June). In addition, by providing access along the inland edge of an area recently returned to tidal action, the levee setback trail will provide a vital link to a potential future Bay Trail segment to the east along Sonoma Creek. This planned Bay Trail segment will originate at the Highway 37 crossing of Sonoma Creek and run atop the levee bordering the Vallejo Sanitation District Agricultural Fields and San Pablo Bay. Planning and coordination efforts for this connection are already underway. Special Condition II-D is included in this amended consistency determination to ensure that the public access improvements authorized herein are implemented and maintained for a specified amount of time.

Because the project that is the subject of Amendment No. One is a relatively small project (estimated project cost of \$478,000), USFWS is uncertain of how much levee loop trail it can afford to maintain consistent with enhancing wildlife habitat. However, because USFWS is committed to developing a public access plan for their northwest properties that may connect these lands and will maintain the levee loop trail until the Commission has approved the public access plan, the Commission finds that the project proposed by Material Amendment No. One, as conditioned herein, is consistent with its laws and policies on public access.

- D. **Safety of Fills / Sea Level Rise.** The Bay Plan policies on Safety of Fills state, in part, “[t]o prevent damage from flooding, structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by competent engineers.” Additionally, these policies state in part that, “[t]o minimize the potential hazard to Bay fill projects and bayside development from subsidence, all proposed development should be sufficiently high above the highest estimated tide level for the expected life of the project or sufficiently protected by levees...”

The proposed fill for this project will not be for the purpose of building structures or new development but rather for the enhancement of tidal wetlands. Tidal wetlands provide natural protection against coastal flooding along shorelines. The consistency determination states that “the proposed project lies within the 100-year floodplain of San Pablo Bay and is regularly inundated with water during tidal cycles... and increasing tidal exchange, restoring the natural tidal prism, and increasing the amount of native marsh vegetation would likely benefit floodplain function, which would be consistent with FEMA floodplain management requirements.” In addition, the USFWS will place approximately 540 cubic yards of material on the outboard southern levee of Lower Tubbs Island to repair a collapsed culvert and to extend the life of the levee, allow continued access on the levee, and allow USFWS to effectively manage the habitat

inside Lower Tubbs Island.

As climate change continues, the project site may become more vulnerable to accelerated sea level rise. The consistency determination states that the proposed project “is being conducted in anticipation of future climate change effects on weather patterns and water levels of the San Francisco Estuary and in particular, San Pablo Bay. Our actions will reduce water impoundments, improve tidal connectivity, and improve habitat conditions for estuarine-dependent species. These actions are expected to buffer current and future climate-related changes to tidal and subtidal environments of the Refuge.”

The Commission finds that the project proposed by Material Amendment No. One, as conditioned herein, is consistent with its policies on safety of fills and sea level rise.

E. Natural Resources Policies

- a. **Tidal Marshes and Tidal Flats.** The Bay Plan policies on tidal marshes and tidal flats state, “where and whenever possible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands or should be managed to provide important Bay habitat functions...” The policies also state, “[a]ny tidal restoration project should include clear and specific long-term and short-term biological and physical goals, and success criteria and a monitoring program to assess the sustainability of the project. Design and evaluation of the project should include an analysis of: (a) the effects of sea level rise; (b) the impact of the project on the Bay’s sediment budget; (c) localized sediment erosion and accretion; (d) the role of tidal flows; (e) potential invasive species introduction, spread and their control; (f) rates of colonization by vegetation, where applicable; (g) expected use of the site by fish, other aquatic organisms and wildlife; and (h) site characterization. If success criteria are not met, corrective measures should be taken...” The policies further state that “[b]ased on scientific ecological analysis and consultation with the relevant federal and state resource agencies, a minor amount of fill may be authorized to enhance or restore fish, other aquatic organisms or wildlife habitat....”

As described in the consistency determination, the project will “increase tidal flows and increase the amount of shallow channel habitat, promote improved vigor of marsh vegetation, and promote some increase in shallow, open water mudflats. The increased tidal prism resulting from enhancement activities may also widen and deepen existing channels to the benefit of fish and diving ducks. Improved vegetation conditions and tidal flushing within the tidal marsh would expand habitat for endangered estuarine marsh species such as the California clapper rail and the salt marsh harvest mouse. Expansion of marsh interior open water mudflats would provide important high tide roosting and foraging environments for migratory and wintering shorebirds and waterfowl.”

The USFWS has developed a monitoring program as part of the Enhancement Plan for the project. The project will be monitored for five years after construction has been completed. The Enhancement Plan and revised monitoring program describe the specific biological and physical parameters (such as plant measurements, invasive species control, hydrology, etc.,) to be monitored and incorporates project performance measures (positive or negative trends) towards the project goal of

improving tidal marsh conditions. The consistency determination further states that “if negative trends in the project area are detected, the Refuge will identify the physical conditions causing the trend and work to take corrective action.” Special Condition II-C is included in this amended consistency determination to ensure that the prescribed monitoring is conducted.

- b. **Fish, Other Aquatic Organisms and Wildlife.** The Bay Plan policies on Fish, Other Aquatic Organisms and Wildlife state: “[T]o assure the benefits of fish, other aquatic organisms and wildlife for future generations...the Bay’s tidal marshes, tidal flats, and subtidal habitat should be conserved, restored, and increased.” These policies also state that “[t]he Commission should consult with the California Department of Fish and Game and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service whenever a proposed project may adversely affect an endangered or threatened plant, fish, other aquatic organism or wildlife species...[(and)] give appropriate consideration of [(their)] recommendations in order to avoid possible adverse impacts of a proposed project on fish, other aquatic organisms and wildlife habitat.” The policies further state that “[t]he Commission may permit a minor amount of fill or dredging in wildlife refuges, shown on the Plan Maps, necessary to enhance fish, other aquatic organisms and wildlife habitat or to provide public facilities for wildlife observation, interpretation, and education.”

The proposed project would enhance approximately 65 acres of tidal habitat and likely result in an increase in shallow channel habitat, tidal marsh, and shallow open water mudflats, which would provide increased habitat for a broad range of species. On May 14, 2009, NOAA National Marine Fisheries Service (NMFS) issued a consultation letter, pursuant to Section 7 of the Endangered Species Act, for the project. The letter made a determination that the proposed project “is not likely to adversely affect ESA-listed species or designated critical habitat” and is likely to provide “overall beneficial effects to EFH (Essential Fish Habitat).” On May 20, 2009, the U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion that states that the proposed project “is not likely to adversely affect the California clapper rail or threatened Delta smelt” and “not likely to jeopardize the continued existence of the [salt marsh harvest mouse].” Both of these documents recommended specific conservation measures to be employed during construction to avoid impacts to the marshes and Bay.

For these reasons, the Commission finds that the project proposed by Material Amendment No. One, as conditioned herein, is consistent with its policies on natural resources.

- F. **Dredging.** Bay Plan policies on dredging state in part, that “[d]redging and dredged material disposal should be conducted in an environmentally and economically sound manner. Dredgers should reduce disposal in the Bay and certain waterways over time...” According to Dredging Policy 2, the Commission should authorize dredging when it can find that: (a) it serves a water-oriented use or other important public purpose; (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board; (c) important fisheries and Bay natural resources would be protected through seasonal restrictions; (d) the project will result in the minimum dredging volume necessary; and (e) the materials would be disposed of in accordance with Policy 3.” Dredging Policy 3 states in part, that dredged materials should, if feasible, be reused or disposed outside the Bay and certain water-

ways. Except when reused in an approved fill project, dredged material should not be disposed in the Bay...."

As part of the proposed project, sediment will be dredged from the Commission's Bay jurisdiction to create and enlarge tidal channels. This material will then be beneficially reused to raise depressions within the marsh and strengthen the outboard levee of Lower Tubbs Island. The proposed dredging will be for a water-oriented use, namely the enhancement of tidal wetlands within a designated wildlife refuge. In addition, the dredged material will be beneficially reused on-site and would provide habitat benefits for marsh-dependent wildlife and special status species.

The consistency determination states that "no specific investigations of the excavated materials are proposed" and that there are no known pollutants or toxic contamination sites within the project area." The California Regional Water Quality Control Board (RWQCB) has issued a conditional Water Quality Certification (WQC), on August 18, 2009, which does not require the USFWS to perform testing of the sediment proposed for dredging and finds the proposed dredging activities consistent with the provisions of the Clean Water Act.

For these reasons, the Commission finds that the project proposed by Material Amendment No. One, as conditioned herein, is consistent with its policies on dredging.

- B. G. **Environmental Review.** The ~~proposed original~~ project ~~is~~ was found to be categorically exempt from the requirement to prepare an environmental impact report, pursuant to Regulation Section 11501, because the project ~~is~~ was found to be equivalent to a "minor repair or improvement," as defined in Regulation Sections 10601(a)(2)(A) and 10601(a)(2)(B) ~~10601(a)(5) and (b)(1)~~ in that the project involves the installation of new protective works and repairs to existing protective works that meet the following criteria (1) the size of the new works or the repairs to the existing works constitute the minimum amount necessary to stabilize existing dikes and banks or to provide improved fish and wildlife habitat and (2) the new work or repairs to existing works would cover less than 10,000 square feet of the horizontal projection of the work below the line of highest tidal action. For the project that is the subject of Material Amendment No. One, the California Regional Water Quality Control Board (RWQCB) issued a conditional Water Quality Certification (WQC) on August 18, 2009. As part of the WQC, acting as the lead environmental agency, the RWQCB determined that the project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA).
- C. H. **Coastal Zone Management Act.** The Commission, pursuant to the Coastal Zone Management Act of 1972, as amended (16 USC Section 1451), and the implementing Federal Regulations in 15 CFR Part 930, is required to review Federal projects within San Francisco Bay and agree or disagree with the Federal agency's determination that the project is consistent with the Commission's Amended Coastal Zone Management Program for San Francisco Bay. This amended letter constitutes such review and comment.
- D. I. **Commission Meetings.** The original This project was listed with the Commission on November 19, 1993, at which time no Commissioner or other party objected to the project. A public hearing for the project that is the subject of Material Amendment No. One was held at the Commission meeting in San Francisco on September 3, 2009.

- A. I. **Consistency Determination History.** On October 25, 1993, U.S. Fish and Wildlife submitted a description of the project and requested that the Commission concur that the ~~proposed~~ original project ~~is~~ was consistent with its Amended Coastal Zone Management Program for San Francisco Bay. Based on the information contained in those materials, the ~~proposed~~ original project ~~is hereby~~ was found to be consistent with the provisions of the McAteer-Petris Act and the policies of the San Francisco Bay Plan in that levee maintenance would contribute to the preservation of diked marshes along the Bay, and that further diminution of diked marshes would result in a reduction in the amount of Bay-related wildlife the Bay system can support.