



US Army Corps
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San Francisco District

SAN FRANCISCO DISTRICT

Regulatory Division
450 Golden Gate Ave., 4th Floor
San Francisco, CA 94102-3406

PUBLIC NOTICE

PROJECT: Tiscornia Marsh Habitat Restoration and Sea Level Rise Adaptation Project

PUBLIC NOTICE NUMBER: 2021-00075S

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COMMENTS DUE DATE: February 4, 2023

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1. **INTRODUCTION:** The Marin Audubon Society (MAS), (POC: Barbara Salzman, 415-924-6057), 48 Ardmore Road, Larkspur, CA and the City of San Rafael (City) (POC: Theo Sanchez, 415-725-1003), 111 Mophew Street, San Rafael, CA, through their agent, Environmental Science Associates (ESA) (POC: Ann Borgonovo 415-896-5900), have applied to the U.S. Army Corps of Engineers (USACE), San Francisco District, for a Department of the Army Permit to excavate and discharge fill material into jurisdictional waters of the United States associated with the construction of the Tiscornia Marsh Habitat Restoration and Sea Level Rise Adaptation Project. This Department of the Army permit application is being processed pursuant to the provisions of Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq.*) and Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 *et seq.*).

2. PROPOSED PROJECT:

Project Site Location: The Project is located on a 28-acre site adjacent to San Rafael Creek, at 50 Canal Street, in the City of San Rafael, Marin County, California, APNs 009-142-01, 009-032-06, 009-032-08, and 009-032-09, (lat. 37.967983, long. -122.499040).

Project Site Description: The site contains Tiscornia Marsh, one of the few small areas of tidal marsh remaining in San Rafael Bay, and mud flats east of the marsh and a diked marsh west of the marsh. The site is bounded to the west by the Al Boro Community Center and Pickleweed Park, and a combined perimeter levee and trail that extends around the diked marsh and a City-owned pond and stormwater line. The mouth of San Rafael Creek borders the northern edge of the Project site. Tiscornia Marsh has experienced a significant amount of

erosion over the past 30 years, as much as 200 feet (a loss of approximately 3 acres). The adjacent Canal neighborhood is low-lying and currently at risk to coastal flooding.

Project Description: As shown in the attached drawings, the applicant proposes to restore Tiscornia Marsh by first constructing a gravel beach (man-made beach constructed of coarse-grained materials like gravel and cobbles) along the bayside edge of the former marsh extent. The gravel beach would allow for the reconstruction of the former tidal marsh using dredged material from local sources (i.e. beneficial reuse) and provide shoreline protection to the newly expanded tidal marsh. The Project would also restore tidal action to the City-owned diked marsh at the north end of Pickleweed Park by breaching and lowering the existing levee along the northern edge of the diked marsh, and constructing a new setback levee with an ecotone transition zone (ecotone slope) at the southern edge of the diked marsh. The Project would also improve approximately 1,100 feet of existing shoreline levee to achieve greater flood protection, public access, and habitat benefits. Altogether, the Project would reconstruct approximately 4 acres of eroded tidal marsh and gravel beach, preserve and protect the approximately 8 remaining acres of Tiscornia Marsh, and restore approximately 4 acres of diked marsh by reconnecting it to tidal inundation. The proposed activities are summarized here.

Gravel Beach Construction: When completed, the gravel beach would be approximately 50 to 60 feet wide, extending from the marsh's bayside mudflat to an approximate elevation of 9 feet North American Vertical Datum 1988 (NAVD88). The relatively narrow beach would have no direct land access and would be separated from the southern shoreline by a small tidal channel. The planned crest elevation is designed to protect the area

behind the beach from high tides, wave runup, and erosion during an average year's storm events. The crest of the beach would be planted with high marsh vegetation and would transition gradually to newly created tidal marsh on the landward side. This coarse-grained feature would emulate naturally occurring beaches in San Francisco Bay, consisting predominantly of gravel, with larger cobbles (e.g., 4- to 9-inch diameter) used for the beach subgrade. Coarser beach materials such as gravels and cobbles would be more durable against storm events and less likely to drift laterally into San Rafael Creek. The beach design would incorporate a series of retention groins, constructed of rock and/or wood, to restrict longshore drift and retain sufficient sand and gravel in the beach profile. In addition, a flexible (i.e., made of granular, porous material instead of concrete) jetty structure constructed of suitably sized cobble would be built at the north end of the new marsh and beach to reduce erosion and prevent the movement of beach sediment into the creek. The gravel beach would be constructed using imported materials in two major stages.

Eroded Tidal Marsh Reconstruction: The Project would place sediments within an approximately four-acre area of the site to reconstruct tidal marsh. The marsh would be created by placing locally obtained dredged sediments (beneficial reuse) compatible with the existing marsh, along with soils excavated on site for other Project elements, into the mudflat. Imported sediments would be dredged mechanically, transported to the site via barge, and placed in the existing mudflat. Prior to placement of material, a containment berm (that would later be further built out as the gravel beach) would be constructed along the water's edge of the new marsh area, the crest of which would be high enough to contain dredged material and isolate the work area from open waters. The existing shoreline levee and protection measures such as hay bales and/or coir logs would be placed to contain the south and west sides of the fill placement area, respectively. Following fill placement, a tidal channel would be excavated along the existing marsh edge to connect to the existing marsh channel system that drains to the creek.

Diked Marsh Restoration: The diked marsh bordering Pickleweed Park is at mid-marsh elevation and dominated by pickleweed, but it is isolated from the tidal action of the Bay by the shoreline levee. The Project would restore tidal action to this area by lowering and breaching the shoreline levee and excavating a tidal channel network of one to three branching channels, connecting the diked marsh to the Bay through the breached levee. Portions of the levee around the diked marsh would be lowered and revegetated to create high marsh and upland transitional habitat, and would be

disconnected by the breached areas from consistent land access to deter terrestrial predators (e.g., house cats). Up to 150 linear feet of riprap armoring along the banks of the creek would also be removed. A new setback levee, with an ecotone slope, would be constructed on the south side of the diked marsh, adjacent to the existing soccer field, before the outboard levee is breached. The new levee would be approximately 12 feet wide at the crest, and the total levee footprint would be approximately 80 feet wide, including the ecotone slope. Finally, lowering the existing levee would remove current pedestrian access to the two PG&E towers and associated boardwalks. PG&E would construct new access as part of a separate project prior to the diked marsh restoration portion of this Project.

Shoreline Levee Improvements: The Project would improve shoreline levees to have a crest elevation of 13 feet NAVD88, providing three feet of freeboard above the current FEMA 100-year base flood elevation (BFE). The existing levee on the south side of the Project site would be raised by 4 feet, while the levee on the east side of the soccer field would be raised by 1 foot, and the width of the levees at the crest would be approximately 12 feet. The west end of this new levee would tie in to the shoreline in one of two optional ways, to be determined in coordination with the City of San Rafael, so as to protect the City's existing buried storm drain. Under the first option the new levee would connect to the existing trail on the west side of the diked marsh and soccer field, requiring approximately 250 feet of the existing shoreline levee west of the trail to be raised between 1 to 4 feet to transition to the design elevation of the proposed new levee. Under the second option, the new levee would extend approximately 150 feet directly west to the northwest corner of Pickleweed Park, crossing over the existing buried stormwater line. Both options would place fill within an existing pond and the remaining area of the pond would be graded and planted to function as a wetland (either freshwater wetland under first option, or as tidal wetland under second option). The remainder of the existing levee (approximately 1,100 feet on the west and south sides of the existing Tiscornia Marsh) would be raised and/or widened in place (requiring a setback) to provide habitat benefits and uniform flood protection that would meet regional standards. The existing levee between Pickleweed Park and the west side of Tiscornia Marsh would be raised 1 to 2 feet, creating a more defined crest, approximately 12 feet wide. No grading is proposed in the vegetated marsh in this segment. The levee along the south end of Tiscornia Marsh would be set back landward, partially onto City property, to accommodate levee raising and the proposed ecotone slope. The levee crest would be approximately 12 feet wide and the total

levee footprint, accounting for the ecotone slope, would be approximately 80 feet wide. The toe of the ecotone would be at the edge of the existing marsh, which is closer to the levee at the west end, and farther away at the east end.

The proposed ecotone slopes within the diked marsh and along the setback levee along the south end of Tiscornia Marsh would both be approximately 500 linear feet long, and sloped at approximately 10:1 (horizontal to vertical), so that they would be approximately 30 feet wide.

Basic Project Purpose: The basic project purpose comprises the fundamental, essential, or irreducible purpose of the project, and is used by USACE to determine whether the project is water dependent. The basic project purpose is to restore and enhance tidal habitats and provide flood protection.

Overall Project Purpose: The overall project purpose serves as the basis for the Section 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project while allowing a reasonable range of alternatives to be analyzed. The overall project purpose is to reconstruct the former extent of the tidal marsh habitat at Tiscornia Marsh, enhance ecological function and aquatic habitat, and provide improved flood protection to the aquatic habitats and adjacent neighborhoods.

Project Impacts: The Project would have temporary and permanent direct effects. Temporary impacts include the placement of fill to provide equipment access and the temporary excavation/dredging for barge access, and in some cases, the fill may be in place for multiple years of construction, but would be restored post-construction. The permanent impacts include permanent fill discharge within wetlands and waters of the U.S., and the permanent type conversion of waters of the U.S. In summary, the total temporary impacts include approximately 3,110 cubic yards excavated within 0.33 acre of waters of the U.S., and discharge of approximately 4,400 cubic yards of fill within 0.40 acre of wetlands and 0.22 acre of other waters of the U.S. (mudflat). The total permanent impacts include 9,000 cubic yards of excavation within 1.36 acre of wetlands, and discharge of 90,810 cubic yards of fill within 0.93 acre of wetlands, and 3.9 acres of other waters of the U.S. (mudflat).

Proposed Mitigation: The proposed Project would restore and enhance waters of the U.S. On balance,

approximately 0.36 acre of aquatic resources would be created, and there would be permanent type conversion of aquatic resources, including diked saline wetland to tidal wetland, and mudflat habitat to tidal wetland. The Project does not propose compensatory mitigation. The Project would minimize impacts to aquatic resources and to aquatic species through the implementation of water quality and construction best management practices (BMPs) for minimizing turbidity and accidental discharges that are aligned with the State Water Resource Control Board's Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Restoration Projects Statewide (Statewide Restoration General Order). The Project would also incorporate species-specific protection measures for avoiding and minimizing harm, including, among other measures, preconstruction surveys, biological monitoring, work windows, work buffers, and environmental awareness training.

3. STATE AND LOCAL APPROVALS:

Water Quality Certification: State water quality certification or a waiver thereof is a prerequisite for the issuance of a Department of the Army Permit to conduct any activity which may result in a fill or pollutant discharge into waters of the United States, pursuant to Section 401 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1341 *et seq.*). The applicant has recently submitted an application to the California Regional Water Quality Control Board (RWQCB) to obtain water quality certification for the project. No Department of the Army Permit will be issued until the applicant obtains the required certification or a waiver of certification. A waiver can be explicit, or it may be presumed if the RWQCB fails or refuses to act on a complete application for water quality certification within 60 days of receipt, unless the District Engineer determines a shorter or longer period is a reasonable time for the RWQCB to act.

Water quality issues should be directed to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, by the close of the comment period.

Coastal Zone Management: Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) *et seq.*), requires a non-Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a Consistency Certification that indicates the activity

conforms with the state's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate state agency has issued a Consistency Certification or has waived its right to do so. Since the project occurs in the coastal zone or may affect coastal zone resources, the applicant has applied for a Consistency Certification from the San Francisco Bay Conservation and Development Commission to comply with this requirement.

Coastal zone management issues should be directed to the Executive Director, San Francisco Bay Conservation and Development Commission, 375 Beale St., Suite 510, San Francisco, CA 94105 by the close of the comment period.

Other Local Approvals: The applicant has applied for the following additional governmental authorizations for the project: A General Lease Agreement to be issued by the California State Lands Commission, a Lake and Streambed Alteration Agreement to be issued by the California Department of Fish and Wildlife, and a Use Permit to be issued by the City of San Rafael.

4. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act (NEPA): Upon review of the Department of the Army permit application and other supporting documentation, USACE has made a *preliminary* determination that the project neither qualifies for a Categorical Exclusion nor requires the preparation of an Environmental Impact Statement for the purposes of NEPA. At the conclusion of the public comment period, USACE will assess the environmental impacts of the project in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347), the Council on Environmental Quality's regulations at 40 C.F.R. § 1500-1508, and USACE regulations at 33 C.F.R. § 325. The final NEPA analysis will normally address the direct, indirect, and cumulative impacts that result from regulated activities within the jurisdiction of USACE and other non-regulated activities USACE determines to be within its purview of Federal control and responsibility to justify an expanded scope of analysis for NEPA purposes. The final NEPA analysis will be incorporated in the decision documentation that provides the rationale for issuing or denying a Department of the Army Permit for the project. The final NEPA analysis and supporting documentation will be on file with the San Francisco District, Regulatory Division.

Endangered Species Act (ESA): Section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. § 1531 *et seq.*), requires Federal agencies to consult with either the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to ensure actions authorized, funded, or undertaken by the agency are not likely to jeopardize the continued existence of any Federally-listed species or result in the adverse modification of designated critical habitat. As the Federal lead agency for this project, USACE has conducted a review of the California Natural Diversity Data Base, digital maps prepared by USFWS and NMFS depicting critical habitat, and other information provided by the applicant to determine the presence or absence of such species and critical habitat in the project area. Based on this review, USACE has made a preliminary determination that the following Federally-listed species and designated critical habitat are present at the project location or in its vicinity and may be affected by project implementation. North American green sturgeon Southern DPS (*Acipenser medirostris*), and designated critical habitat; Chinook salmon, winter-run, spring-run ESU (*Oncorhynchus tshawytscha*), and central California coast and central valley steelhead (*O. mykiss*), and designated critical habitat for these species; salt marsh harvest mouse (*Reithrodontomys raviventris*), and Ridgway's rail (*Rallus longirostris obsoletus*).

To address project related impacts to these species and designated critical habitat, USACE will initiate formal consultation with USFWS and NMFS, pursuant to Section 7(a) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA): Section 305(b)(2) of the MSFCMA of 1966, as amended (16 U.S.C. § 1801 *et seq.*), requires Federal agencies to consult with the NMFS on all proposed actions authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH). EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is designated only for those species managed under a Federal Fisheries Management Plan (FMP), such as the *Pacific Groundfish FMP*, the *Coastal Pelagics FMP*, or the *Pacific Coast Salmon FMP*. As the Federal lead agency for this project, USACE has conducted a review of digital maps prepared by NMFS depicting EFH to determine the presence or absence of EFH in the project area. Based on this review, USACE has made a *preliminary* determination that EFH is

present at the project location or in its vicinity and that the critical elements of EFH may be adversely affected by project implementation. Pacific Groundfish, Coastal Pelagics and Pacific Coast Salmon FMPs may be adversely affected by construction-related short-term water quality degradation, the loss of foraging habitat while the containment berm is in place, and the permanent loss of mud flat habitat converted to the coarse beach and tidal marsh. To address project related impacts to EFH, USACE will initiate consultation with NMFS, pursuant to Section 305(5)(b)(2) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

Marine Protection, Research, and Sanctuaries Act (MPRSA): Section 302 of the MPRSA of 1972, as amended (16 U.S.C. § 1432 *et seq.*), authorizes the Secretary of Commerce, in part, to designate areas of ocean waters, such as the Cordell Bank, Gulf of the Farallones, and Monterey Bay, as National Marine Sanctuaries for the purpose of preserving or restoring such areas for their conservation, recreational, ecological, or aesthetic values. After such designation, activities in sanctuary waters authorized under other authorities are valid only if the Secretary of Commerce certifies that the activities are consistent with Title III of the Act. No Department of the Army Permit will be issued until the applicant obtains any required certification or permit. The project does not occur in sanctuary waters, and a *preliminary* review by USACE indicates the project is not likely to affect sanctuary resources. This presumption of effect, however, remains subject to a final determination by the Secretary of Commerce or his designee. Since the project occurs in sanctuary waters or may affect sanctuary resources, the applicant is hereby advised to apply for the applicant has applied for the applicant has obtained certification or a permit from the Secretary of Commerce or his designee to comply with this requirement.

National Historic Preservation Act (NHPA): Section 106 of the NHPA of 1966, as amended (16 U.S.C. § 470 *et seq.*), requires Federal agencies to consult with the appropriate State Historic Preservation Officer to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the *National Register of Historic Places*. Section 106 of the Act further requires Federal agencies to consult with the appropriate Tribal Historic Preservation Officer or any Indian tribe to take into account the effects of their undertakings on historic properties, including traditional cultural properties, trust resources, and sacred sites, to which Indian tribes attach historic, religious, and cultural

significance. As the Federal lead agency for this undertaking, USACE has conducted a review of the latest published version of the *National Register of Historic Places*, survey information on file with various city and county municipalities, and other information provided by the applicant to determine the presence or absence of historic and archaeological resources within the permit area. Based on this review, USACE has made a *preliminary* determination that historic or archaeological resources are not likely to be present in the permit area and that the project either has no potential to cause effects to these resources or has no effect to these resources. USACE will render a final determination on the need for consultation at the close of the comment period, taking into account any comments provided by the State Historic Preservation Officer, the Tribal Historic Preservation Officer, the Advisory Council on Historic Preservation, and Native American Nations or other tribal governments. If unrecorded archaeological resources are discovered during project implementation, those operations affecting such resources will be temporarily suspended until USACE concludes Section 106 consultation with the State Historic Preservation Officer or the Tribal Historic Preservation Officer to take into account any project related impacts to those resources.

5. COMPLIANCE WITH THE SECTION 404(b)(1) GUIDELINES: Projects resulting in discharges of dredged or fill material into waters of the United States must comply with the Guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. § 1344(b)). An evaluation pursuant to the Guidelines indicates the project is dependent on location in or proximity to waters of the United States to achieve the basic project purpose. This conclusion raises the (rebuttable) presumption of the availability of a practicable alternative to the project that would result in less adverse impacts to the aquatic ecosystem while not causing other major adverse environmental consequences. The applicant has been informed to submit an analysis of project alternatives to be reviewed for compliance with the Guidelines.

6. PUBLIC INTEREST EVALUTION: The decision on whether to issue a Department of the Army Permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the project and its intended use on the public interest. Evaluation of the probable impacts requires a careful weighing of the public interest factors relevant in each particular case. The benefits that may accrue from the project must be

balanced against any reasonably foreseeable detriments of project implementation. The decision on permit issuance will, therefore, reflect the national concern for both protection and utilization of important resources. Public interest factors which may be relevant to the decision process include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. CONSIDERATION OF COMMENTS: USACE is soliciting comments from the public; Federal, State, and local agencies and officials; Native American Nations or other tribal governments; and other interested parties in order to consider and evaluate the impacts of the project. All comments received by USACE will be considered in the decision on whether to issue, modify, condition, or deny a Department of the Army Permit for the project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, and other environmental or public interest factors addressed in a final environmental assessment or environmental impact statement. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the project.

8. SUBMITTING COMMENTS: During the specified comment period, interested parties may submit written comments to Frances Malamud-Roam, San Francisco District, Regulatory Division, 450 Golden Gate Avenue, 4th Floor, San Francisco, California 94102-3404; comment letters should cite the project name, applicant name, and public notice number to facilitate review by the Regulatory Permit Manager. Comments may include a request for a public hearing on the project prior to a determination on the Department of the Army permit application; such requests shall state, with particularity, the reasons for holding a public hearing. All substantive comments will be forwarded to the applicant for resolution or rebuttal. Additional project information or details on any subsequent project modifications of a minor nature may be obtained from the applicant and/or agent or by contacting the Regulatory Permit Manager by telephone or e-mail (cited in the public notice letterhead). An electronic version of this public notice may be viewed under the *Public Notices* tab on the USACE website: <https://www.spn.usace.army.mil/Missions/Regulatory>.