



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: Cargill Salt Ponds Operations and Maintenance

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1. **INTRODUCTION:** Cargill, Incorporated, (POC: Tim Oolman, Tim_Oolman@cargill.com), 7220 Central Ave, Newark, CA 94560, through its agent, Boudreau Associates, LLC (POC: Christine Boudreau, 415-296-1155, cboudreau@boudreaulc.com), 327 Jersey Street, San Francisco, CA 94114, has applied to the U.S. Army Corps of Engineers (USACE), San Francisco District, for a Department of the Army Regional General Permit (RGP) to authorize ongoing operations and maintenance of existing salt pond infrastructure used in Cargill's industrial salt production in the San Francisco Bay. 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 RGP would cover Cargill's South Bay salt pond facilities at the Redwood City Plant complex in San Mateo County, and Baumberg Pond B-3C (Union City), Newark Plant 1 (Newark and north Fremont), and Plant 2 (Newark and south Fremont) ponds along the east bay shoreline in Alameda County, California (figure 1).

Project Site Description: Cargill's South Bay facilities include approximately 12,100 acres of salt ponds contained by approximately 123 miles of earthen berms, of which approximately 62 miles are outboard berms separating the salt ponds from the bay and associated sloughs and tidal marsh (figures 2a-2e). Newark Plant 1 contains 15 evaporator ponds and occupies approximately 4,100 acres of bay shoreline within the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge). Newark Plant 2 includes 6 evaporator ponds and 38 processing

ponds and crystallizer beds used in the final stages of salt production, covering approximately 6,400 acres (approximately 3,380 acres within the Refuge and 3,020 acres owned by Cargill outside the Refuge). Baumberg Pond B-3C is a non-operating, 166-acre pond adjacent to Eden Landing Ecological Reserve. The Redwood City Plant contains 17 processing ponds and crystallizer beds and occupies approximately 1,433 acres.

Typical salt pond infrastructure includes the following:
Earthen berms: Outboard and internal berms that contain and separate the salt ponds and are used by Cargill personnel for access. Berms may also be used by others to access areas adjacent to the salt ponds for Refuge management, mosquito control, etc.

Intake structures: Tide gates, pumps, and associated intake channels to bring bay water into the system under controlled conditions.

Pumps: Multiple pumps are located throughout each Plant. They are typically located between ponds and salt plants and used to move brines within the system. The pumps used range in capacity from 2,000 to 30,000 gallons per minute.
Siphons: Siphons are used beneath waterways such as sloughs and flood control channels to connect salt ponds on either side of the waterways.

Pipes and brine channels: Brines are conveyed from one pond to another by pipes and brine channels located between salt ponds, and a transbay pipeline conveys brine between the Newark Plants and the Redwood City Plant.

Borrow channels: Located along the inboard sides of berms and utilized during berm maintenance to provide a source of sediment to maintain/repair/ strengthen sections of the berms where needed.

Platforms, walkways, and bridge structures: These structures provide safe overwater access to pumps and other infrastructure.

Locks: Small basins (≤ 1 acre) along salt pond berms that may be used by water-borne equipment to access the

interior of salt ponds from adjacent waterways. To enter a salt pond, a barge-mounted excavator cuts through the outboard berm of the lock, enters the lock, and then fills in the cut to reseal the lock from the adjacent waterway. The excavator then cuts through the inboard berm of the lock, enters the salt pond, and reseals the inboard berm.

Project Description: Proposed activities under the new RGP would be similar to ongoing maintenance performed under existing and past permits since 2008. Cargill would continue submitting annual workplans to USACE and other permitting agencies for annual approval of planned maintenance activities each year. Maintenance subject to USACE jurisdiction would typically involve the following categories of activities:

1. Repair, replacement, and servicing of existing infrastructure:

a) repair and replacement of existing water control structures and related facilities such as pumps, gates, pipelines, siphons, open channels and culverts, including removal of silt and algae from these structures. Excavated material would be placed on berm tops above the High Tide Line (HTL) or other identified upland areas unless otherwise authorized by USACE and other agencies.

b) Excavating, clearing, and re-trenching of existing intake channels and brine-conveying ditches so long as the existing configuration is not substantially altered. Excavated material would be placed along berm tops above HTL or hauled off-site to upland disposal areas.

c) Repair and replacement of existing bridges, bridge foundations, and abutments within the salt pond network.

d) Repair and replacement of other existing infrastructure such as fences or power lines in or over jurisdictional waters.

e) Repair of existing authorized reaches of riprap along berm slopes. The authorized riprap areas would be designed to have approximately 4:1 slope. Any proposed riprap exceeding existing reaches (areas currently or previously covered by riprap) by 10 linear feet or more would be considered new riprap (detailed separately in annual workplans and subject to the requirements of category 2h below).

f) Spot repairs and rehabilitation of crystallizer beds. This work would utilize land-based equipment.

2. Ongoing and New Work:

a) Berm maintenance - placement of imported fill material using land-based equipment on the top and inboard (pond) side of salt pond berms below the Ordinary High Water Mark (OHWM) for the purpose of raising and

fortifying berms to prevent degradation (figure 3). Work along the tops of berms would generally not be subject to USACE jurisdiction.

b) If category 2a work is not feasible, berm maintenance may also use material dredged from adjacent waters using land or water-based equipment. Material may be dredged from new or existing borrow ditches within salt ponds, or slough mud generated from category 1a or 1b work outside the ponds may be used if the dredge has sufficient reach.

c) Dredging in salt ponds to allow water-based equipment to cross a pond, with dredged material placed on the pond bottom along the side of the dredged channel. To reduce aquatic impacts Cargill intends to move away from using water-based equipment, so category 2b and 2c maintenance would only occur infrequently.

d) Dredging and placement of dredged material at 14 existing locks, to allow water-based equipment to access the salt ponds. Annual workplans would include specific quantities of material to be dredged and placed, and drawings indicating pre-staked, designated areas for stockpiling, side casting and borrowing material (figure 4). Breached berm material, stockpiled atop the main berm from the last time the lock was accessed, would be used to dam the breach following entry. Upon dredge exit, breaching and plugging berms would be done in reverse. Salt marsh muds that were excavated and sidecast along the access cut on the outboard side of dredge locks would be retrieved and placed back into the access cut and channel to restore surrounding tidal marsh elevations. A small culvert would be inserted into the lock at an elevation that would allow appropriate circulation of high tides into the lock basin to prevent sediment accumulation.

e) Dredging within shallow sloughs to allow water-based equipment to access locks. Dredged material that cannot be placed on salt pond levees may be placed on bar mud flats or sidecast following agency approval. Some slough dredging may also be performed near dredge locks for the purpose of obtaining additional mud to bring the access cut fills to the desired elevation following the dredge access.

f) Installation of new intake and brine control structures, new pumps, siphons, culverts, power transmission lines channels/ditches, crossing of channels and streams, in conjunction with new work, or relocation of existing structures.

g) Construction of new pumping donuts, internal coffer dams, and internal salt pond berms.

h) Placement of new riprap along outboard and inboard berms as needed to fortify the slopes and repair/prevent

erosion, so long as Cargill has adequately demonstrated in the annual workplan that the proposed new riprap is the least environmentally damaging, practicable alternative available to prevent berm erosion. Riprap would be placed below HTL on the outboard sides or OHHM on the inboard sides at a slope of about 4:1 where needed, taking care to minimize the number of voids between rocks that might be utilized by predators (red fox, skunk, etc.) of native birds. Riprap placed on top of non-eroding salt marsh would not be authorized under this RGP.

i) Repair and replacement of siphons that cross salt marsh, sloughs, and channels that would require extensive trenching and side-casting of mud.

g) Dredging and placement of bay muds into eroded areas along selected outboard berms to encourage the expansion of tidal marsh vegetation to diffuse wave energy and prevent levee erosion. The quantities of dredging material to be moved would depend on site specific conditions and would be included in annual workplans. The height of the constructed mounds would approximate high-tide elevations.

h) Dredging a “sump” approximately 75 feet by 75 feet by 2 ½ feet deep in the mud flat of a slough in the immediate vicinity of a staked access cut to a lock, placing the dredged mud on an adjacent berm (within reach of the dredge). The “sump” would serve as a receptacle for accessing dredged material from cutting the access channel.

Cargill proposes some changes to the quantity/frequency and type of past maintenance practices to address sea level rise (SLR), changing maintenance requirements, and increased vehicle access on berms to reduce the need for water-based equipment and associated impacts on adjacent sloughs and waterways:

- Berm core compaction: Reduction from approximately 4 miles over a 10-year period to 2 miles over a 10-year period.
- Lock access: Increase from approximately one event per year to up to four events per year in the short term. However, lock entry/exit events are expected to decline over time as more of the berms are made drivable and use of water-based equipment is reduced.
- Maintenance of drivable berms: As more berms are made drivable, increased maintenance of drivable berms is required. The average amount of maintenance is anticipated to increase from an average of 33 miles per year to an average of 38.5 miles per year over a 10-year period.
- Filling gaps in internal berms to install culverts/bridges for increased vehicle access: up to 5 gaps filled per

year; up to 50 gaps total over the proposed 10-year permit term.

- Repair of structures: Increase from approximately one major repair per year to a total of up to 12 major and minor repairs per year.
- Raising select berms (typically by up to 12 inches or less) in anticipation of SLR, requiring an estimated 9,600 CY of imported material per year.
- Conducting a vinyl sheet pile pilot test for possible future SLR adaptation efforts.
- Installing up to about 1,000 linear feet of vinyl sheet pile per year, should the pilot test prove successful.
- Using a hydraulic suction hose positioned by divers to remove up to 1,000 cubic yards of sediment annually from in front of intakes. This method may be used in lieu of barge-mounted or amphibious excavators for category 1a or 1b maintenance.

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 purpose of the program is to maintain Cargill’s existing salt pond infrastructure in the San Francisco Bay.

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 streamline the permitting process for Cargill’s routine, minimal-impact maintenance activities for existing salt pond infrastructure in the San Francisco Bay.

Project Impacts: The proposed covered activities would have only minimal individual and cumulative impacts to waters of the U.S. The majority of impacts to waters would be limited to areas already impacted by existing infrastructure, and would not result in any additional permanent loss or other adverse effects to aquatic resources. Based on past and projected maintenance needs it is anticipated that annual work subject to USACE jurisdiction would include approximately 8,300 linear feet of berm maintenance (including up to 8,300 linear feet of associated borrow ditch dredging), 750 linear feet of riprap maintenance, four lock entry/exit episodes totaling 2.4 acres of dredging/stockpile impacts, and 12 structure repair/replacement episodes totaling 1.2 acre of impacts.

Because impacts from Cargill's maintenance activities have occurred repeatedly within the same areas for many decades, future impacts authorized by the proposed RGP would not be expected to change the baseline environmental conditions within the program area.

Proposed Mitigation: Cargill would avoid and minimize impacts to waters of the U.S. to the maximum extent practicable. Programmatically, Cargill is working to increase the use of land-based equipment by improving existing berms for vehicle access, thus reducing impacts to adjacent sloughs and waterways resulting from transporting water-based equipment throughout the salt pond complex. Best management practices for construction activities in waters of the U.S. would be implemented to minimize adverse effects to aquatic resources. Cargill has previously mitigated for long term unavoidable impacts to approximately 25 acres of tidal marsh areas adjacent to dredge locks and water control infrastructure, and subject to repeated disturbance by periodic maintenance activities. Mitigation consisted of successful restoration of 49-acres of tidal marsh within a former salt pond adjacent to Whale's Tail Marsh on the south side of Old Alameda Creek. To the extent that ongoing future maintenance activities continue to impact these same areas already mitigated for, additional mitigation would not be required. However, new impacts to tidal marsh resulting from new riprap or other new infrastructure may require additional mitigation.

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 9461, 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 would occur in the coastal zone or may affect coastal zone resources, the applicant has applied for a Consistency Determination 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, 50 California Street, Suite 2600, San Francisco, California 94111, by the close of the comment period.

Other Local Approvals: The applicant has applied for the following additional governmental authorizations for the project: California Endangered Species Act take coverage and a Routine Maintenance Agreement from the California Department of Fish and Wildlife.

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 in the program area and may be affected by project implementation:

- salt marsh harvest mouse (*Reithrodontomys raviventris*)
- Ridgway's/California clapper rail (*Rallus longirostris obsoletus*)
- western snowy plover (*Charadrius nivosus nivosus*)
- California least tern (*Sterna antillarum browni*)
- central California coast steelhead (*Oncorhynchus mykiss*) and Critical Habitat
- green sturgeon (*Acipenser medirostris*) and critical habitat

To address project related impacts to these species and designated critical habitat, USACE has initiated 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. The program area contains EFH for species managed under the *Pacific Groundfish FMP*, the *Coastal Pelagics FMP*, and the *Pacific Coast Salmon FMP*. 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.

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 (SHPO) 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 NHPA 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 made a *preliminary* determination that historic or archaeological resources are present in or near some parts of the program area, but that such resources would not be affected by the project. To address potential impacts to historic or archaeological resources, USACE will initiate consultation with the SHPO for any maintenance activities with the potential to affect historic properties, pursuant to Section 106 of the NHPA. Any required consultation must be concluded before an activity is authorized under the proposed RGP. 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 SHPO 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 impact 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 EVALUATION: 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 Greg Brown, 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>.