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January 13, 2026

Harriet Ross, Director of Regulatory Affairs
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U.S. ARMY CORPS OF ENGINEERS, SAN FRANCISCO DISTRICT'S OPERATIONS AND MAINTENANCE DREDGING PROGRAM FOR 2026 THROUGH 2029 CONSISTENCY DETERMINATION REQUEST (Project)

Dear Harriet Ross:

The California Department of Fish and Wildlife (Department) would like to thank the San Francisco Bay Conservation and Development Commission (BCDC) for the coordination and request for input as it relates to Department managed fisheries and California Endangered Species Act (CESA) concerns. The Department is writing in support of the proposed Staff Recommendation and Letter of Agreement (LOA) for U.S. Army Corps of Engineers San Francisco Districts Operations and Maintenance Dredging Program for 2026 through 2029 Consistency Determination Request (Project). In addition, the Department has the following comments to further support the recommendations as proposed in the LOA.

Pacific Herring

The Department supports the specific conditions and recommendations as it relates to Pacific herring for the Project and recommends that the Commission approve without changes. In support of the LOA, the Department had previously provided technical input and recommendations for the species we oversee and manage, to avoid impacts by the Project. In particular, the Department has raised concern regarding the use of a hydraulic dredge outside of the approved in-water work windows, developed through the San Francisco Bay Long Term Management Strategy (LTMS).

Hydraulic dredging in San Francisco Bay has documented entrainment of aquatic species, including CESA listed species like the longfin smelt and Chinook salmon. Hydraulic dredging during the winter months would also have a substantial impact on Pacific herring. Pacific herring are a state managed commercial and recreational fishery that amass in large schools in San Francisco Bay from approximately November through March to spawn in waters along the shorelines of San Francisco Bay. Pacific herring use the deeper dredged channels of San Francisco Bay as they migrate through San Francisco Bay and stage in deeper water prior to spawning.

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The Department has been managing and regulating Pacific herring in San Francisco Bay since the 1970s. Through our management of the species, we have documented a general decline in the number of Pacific herring returning to San Francisco Bay since approximately the 1980s and a recent decrease in the early 2010s. In 2019, the Department completed the Pacific Herring Fishery Management Plan (FMP) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=184122&inline>). Within the FMP, we document our authority under the Marine Life Protection Act (MLMA) to ensure sustainable use of the State's marine resources (Fish and Game Code § 7050(b) with FMPs being the primary tool to accomplish the goals of the MLMA (Fish and Game Code § 7072). The FMP has a section that specifically details the known impacts from dredging on Pacific herring and the importance of environmental work windows and interagency consultation to limit dredging related impacts during the Pacific herring spawning season (See FMP section 5.10.2.1).

The Department, finds it unsustainable and inconsistent with the Pacific Herring FMP to allow a known source of entrainment of aquatic species in San Francisco Bay to occur at a time and location where large schools of Pacific herring can be present. Therefore, we are in full agreement with the current approach proposed by BCDC to limit hydraulic dredging to the work window established by the LTMS to avoid impacts to Pacific herring.

CESA Listed Species

The Department supports BCDC's approach to avoiding, minimizing, and mitigating impacts from the Project to CESA listed species. Adhering to the LTMS Work Windows for state managed Pacific Herring will also be beneficial for other species including the CESA listed Longfin smelt. The attached comment letter for the Project's 2024 California Environmental Quality Act Environmental Impact Report includes comments and recommendations related to avoiding, minimizing, and mitigating impacts from the Project to CESA listed species.

Conclusion

The Department appreciates the opportunity to comment on the Project and BCDC's consideration of the Department's concerns and recommendations related to CESA listed species and state managed Pacific herring.

Sincerely,



Craig Shuman, D. Env
Marine Regional Manager

Harriet Ross, Director of Regulatory
San Francisco Bay Conservation and Development Commission
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ATTACHMENT

CDFW Comment Letter dated December 30, 2024: San Francisco Bay Federal
Channels Operations and Maintenance Dredging and Sediment Placement Activities
Draft Environmental Assessment/Environmental Impact Report SCH# 2024020498



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December 30, 2024

Jazzy Graham-Davis
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San Francisco Bay Federal Channels Operations and Maintenance Dredging and Sediment Placement Activities (Project)
Draft Environmental Assessment/Environmental Impact Report (EA/EIR)
SCH# 2024020498

Dear Jazzy Graham-Davis:

The California Department of Fish and Wildlife (Department) received a Draft EA/EIR from the San Francisco Regional Water Quality Control Board for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that the Department, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

DEPARTMENT ROLE

The Department is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state. (Fish & G. Code, § 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) The Department, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly for purposes of CEQA, the Department is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act in coastal marine

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

waters of California, and ensuring fisheries are sustainably managed under the Marine Life Management Act. The Department is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) The Department may need to exercise regulatory authority as provided by the Fish and Game Code. To the extent implementation of the Project as proposed may result in take as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.), related authorization of take as provided by the Fish and Game Code will be recommended. Pursuant to our jurisdiction, the Department has the following comments and recommendations regarding the Project.

PROJECT DESCRIPTION SUMMARY

Proponent: United States Army Corps of Engineers (USACE)

Objective: The objective of the Project is to maintain navigability of federal navigation channels to authorized depths in San Francisco Bay.

Location: The Project is located within Pacific Ocean and San Francisco Bay in Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties.

Timeframe: The Project covers federal navigational dredging activities for a 10-year timeframe from 2025 to 2034.

MARINE BIOLOGICAL SIGNIFICANCE

The San Francisco Bay-Delta is the second largest estuary in the United States and supports numerous aquatic habitats and biological communities. It encompasses 479 square miles, including shallow mudflats. This ecologically significant ecosystem supports both state and federally threatened and endangered species and sustains important commercial and recreational fisheries.

STATE AND FEDERALLY LISTED AND MANAGED SPECIES

Protected species under the State and Federal Endangered Species Acts that could potentially be present near Project activities include:

- Longfin smelt (*Spirinchus thaleichthys*), state threatened, federally endangered,
- Delta smelt (*Hypomesus transpacificus*), state and federally endangered,
- Chinook salmon (*Oncorhynchus tshawytscha*), state and federally threatened (Central Valley Spring-run), state and federally endangered (Sacramento

- River Winter-run), state species of special concern (Central Valley Late Fall Run, Central Valley Fall Run),
- Steelhead (*Oncorhynchus mykiss*), federally threatened (Central California Coast and Central Valley evolutionary significant units),
 - Green sturgeon (*Acipenser medirostris*), federally threatened (Southern Distinct Population Segment),
 - White sturgeon (*Acipenser transmontanus*), state candidate threatened,
 - California least tern (*Sternula antillarum browni*), state and federally endangered, state fully protected,
 - Western snowy plover (*Charadrius nivosus*), federally threatened
 - California Ridgeway's rail (*Rallus obsoletus obsoletus*), state and federally endangered, state fully protected,
 - Salt marsh harvest mouse (*Reithrodontomys raviventris*), state and federally endangered, state fully protected,
 - Pacific lamprey (*Entosphenus tridentatus*), state species of special concern, and
 - Western river lamprey (*Lampetra ayresii*), state species of special concern.

Several species with important commercial/recreational fisheries value and habitat value for spawning and rearing could potentially be present near Project activities. These include:

- Dungeness crab (*Metacarcinus magister*),
- Pacific herring (*Clupea pallasii*),
- Rockfish (*Sebastes* spp.),
- California halibut (*Paralichthys californicus*)
- Surfperches (*Embiotocidae*), and
- Eelgrass (*Zostera marina*).

COMMENTS AND RECOMMENDATIONS

The Department offers the comments and recommendations below to assist the San Francisco Regional Water Quality Control Board in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

I. Marine Project Level Impacts and Other Considerations

Project Alternatives

Comment: The Department does not support an increase in suction dredging episodes in channels that have documented entrainment of state and federally listed species. However, the Department does support maximizing beneficial reuse of dredging material within San Francisco Bay. The Department has identified project alternatives that are not currently in the Draft EA/EIR that would further minimize and potentially avoid impacts to listed and managed species as well as address cost concerns with beneficially reusing more dredged material.

Oakland Inner and Outer Harbors would be a preferred channel to move the majority of suction dredging operations within San Francisco Bay to minimize impacts to listed and managed species. The volume of dredged material from Oakland in average dredging episodes is a higher volume than Richmond Inner/Outer and Pinole Shoals (San Pablo Bay) channels combined. If all suction dredging were to be transitioned to Oakland, while prioritizing mechanical dredging in Richmond and San Pablo Bay, the impacts to listed and managed species from suction dredging may be substantially reduced.

Additional consideration could include maintaining the current bi-yearly suction dredge schedule within Richmond Outer and San Pablo Bay channels but only with a commitment from USACE to remain within the Department recommended suction dredge work window of August 1 through November 30 to reduce impacts to listed species. If suction dredging is to continue in Richmond and San Pablo Bay, it is essential that suction dredging remain within the protective work window to ensure minimized impacts to listed and managed species. This option could further address the need for additional beneficial reuse of dredged material in San Francisco Bay and further reduce USACE cost concerns associated with maximizing beneficial reuse.

Recommendation: The Department recommends the preferred project alternative to minimize or potentially avoid impacts to listed and managed species is to transition all suction dredging to Oakland Inner and Outer Harbors.

Recommendation: The Department recommends that if a commitment can be made to remain within the August 1 through November 30 suction dredging work window, Richmond Outer Harbor and San Pablo Bay channels continue suction dredging bi-yearly to increase the total beneficial reuse of dredged material in San Francisco Bay.

Comment: The Draft EA/EIR identifies the CEQA determination for Impact BI-1: Potential Effects on Fish and Benthic Invertebrate Survival Caused by Entrainment under Alternative 1 and Alternative 2 as less than significant because dredged material will be placed at a beneficial reuse site. However, the placement of dredged material at a beneficial reuse site does not offset the impacts caused by entrainment

to listed species under CESA and the Draft EA/EIR did not include any other proposed mitigation for the entrainment impacts to listed species.

Recommendation: The Department recommends the Final EA/EIR be revised and include other mitigation options, such as compensatory mitigation from a mitigation bank or a USACE specific restoration project, to support the less than significance determination of BI-1.

Mitigation

Comment: Compensatory mitigation for listed species impacts should continue as a method to offset impacts from suction dredging occurring in San Francisco Bay and its tributaries. Given the continued level of take being documented and non-adherence to some minimization measures such as work windows, compensatory mitigation to fully offset the impacts of the Project is necessary.

The mitigation options described in the Draft EA/EIR include purchase of mitigation bank credits, providing funding to an in-lieu fee program, or taking dredging material to beneficial reuse. The Department agrees that these are three potential mitigation options currently available to offset impacts caused by suction dredging to listed species. However, some of these mitigation options also have considerable downsides that should be considered.

Beneficial reuse of dredged material is not something the Department finds an appropriate option to offset impacts to listed species. Not all beneficial reuse sites are equal in terms of benefits to listed species nor are the timelines in which the created habitat will be available to the impacted species. Though there are indications that listed species may be using habitats within wetlands created using beneficially reused dredged material, there would have to be more specificity in choosing where the dredged material is going to offset the known impacts to listed species caused by suction dredging.

The purchase of mitigation credits from a mitigation bank may also not be a viable long term mitigation option. Given the current shortage of mitigation credits at only one currently operating bank, the amount of species credits that would be needed over time may not consistently be available to purchase. This could leave USACE with a large sum of undelivered mitigation acreage at times when credits are not available, as we saw within the 2015-2024 time period.

A fourth option, that the Draft EA/EIR did not consider, is a permittee responsible mitigation project. Given the acreage that may be needed over time if suction dredging is to increase during the next ten years, a larger restoration project to provide specific habitat for listed species would be consistent with CDFW CESA

recommendations for non-federal projects seeking CESA authorization. A large scale, long term, restoration project, or USACE specific mitigation bank, should be considered as a mitigation option that can be implemented in the future.

Recommendation: The Department recommends that the Final EA/EIR consider permittee responsible mitigation or a USACE specific mitigation bank as another viable, long-term, and consistent mitigation option to offset impacts from USACE suction dredging operations in San Francisco Bay.

Comment: A citation referenced on p. 3.56 (pers. Comm., Arn Arberg, CDFW, 2024) incorrectly describes what was stated. There is currently one approved bank available, approved by the Department and other state and federal agencies, but credits are purchased quickly making availability limited. Currently, the one mitigation bank offering species credits, the North Delta Fish Conservation Bank, is operational and offers credit purchases or credit reservations as credits become available. Additionally, the reference has misspelled the CDFW staff person name in this citation.

Recommendation: The Department recommends the CDFW personal communication citation be revised and the CDFW staff person name be spelled as follows: Arn Aarreberg.

Monitoring

Comment: Entrainment monitoring, and some additional detection surveys, have continued during hopper dredging episodes since 2014 with only a brief interruption due to the COVID-19 pandemic. The Draft EA/EIR does not discuss whether entrainment monitoring will continue. Entrainment monitoring, in some form, should continue in order to assist with making informed decisions and to be the foundation of an actionable plan to reduce impacts to listed and managed species.

Entrainment monitoring will continue to be a valuable tool in determining potential for take and the amount of take associated with this Project. This monitoring will be especially important for locations in which suction dredging has not occurred previously. If channels like Oakland, San Bruno, and Redwood City were to implement suction dredging methods, these channels will also benefit from entrainment monitoring data to determine presence of species and further refine potential avoidance and minimization measures such as work windows.

Comment: As described in the Draft EA/EIR, the proposed eDNA monitoring is an inappropriate approach for this monitoring technique and should not be used to replace traditional monitoring approaches at this time. The Draft EA/EIR describes a process in which eDNA samples would be collected from two potential dredging locations, the samples would then be processed that day, the results would be used

to determine the order of dredging based on the presence or absence of longfin smelt. eDNA monitoring could be conducted in conjunction with traditional entrainment monitoring to further refine detection of listed species during suction dredging episodes. However, positive or negative detection of longfin smelt through eDNA monitoring alone would not guarantee that longfin smelt have moved into or out of the dredge footprint and relying on eDNA data alone could result in a false positive or negative test.

Recommendation: The Department recommends the Final EA/EIR include traditional entrainment monitoring, in addition to the proposed eDNA and echosounder monitoring, for the next ten-year period of dredging for all channels dredged with a suction dredge. Using all methods available for monitoring listed species will assist in obtaining information on entrainment potential within channels that have not previously been dredged with a suction dredge. Additionally, having multiple methods of species detection will provide more certainty in the monitoring results.

Pacific herring

Comment: The Department has concerns with the amount of dredging that is occurring each year outside of the San Francisco Bay Long Term Management Strategy environmental work windows, and specifically during the winter Pacific herring spawning season. Dredging in Oakland Inner Harbor occurs yearly outside of the work window through the entirety of the spawning season each year. Whereas dredging channels such as Richmond Inner Harbor seems to occur on a frequent basis and often enough, that conflicts between dredging and spawning Pacific herring have occurred, causing dredging to be halted and delayed until after spawning events have concluded. These locations are within the core spawning areas of Pacific herring in San Francisco Bay, identified in the Departments Pacific Herring Fishery Management Plan, and dredging during the spawning season may be having impacts to fish each winter dredging occurs (CDFW 2019).

The Draft EA/EIR did not include any discussion on continued Pacific herring monitoring for dredging occurring outside of the March 16 through November 30 Pacific herring work window. The continued coordination between USACE and the Department on monitoring dredging episodes during the winter months to ensure impacts to spawning herring are avoided is vital. The Department anticipates that this coordination will continue for all channels that may be dredged outside of the Pacific herring work window.

Recommendation: The Department recommends that the Final EA/EIR include discussion on continued monitoring for herring during dredging episodes occurring outside of Pacific herring work window. The Final EA/EIR should also include a

mitigation measure that specifies if dredging occurs outside of the Pacific herring work window, monitoring for spawning herring and coordination with the Department will continue.

Richmond Inner Harbor Winter Dredging

Comment: Richmond Inner Harbor has shown that potential conflicts with spawning Pacific herring have occurred when mechanical dredging takes place during the winter spawning months. The addition of suction dredging as a dredging method, during this sensitive spawning season for herring, could have a substantial impact to any spawning event if it were to coincide with suction dredging. Although spawning is occurring on the fringes of the channel, Pacific herring are using the deeper channels to stage in very high densities prior to spawning, making the species susceptible to entrainment when dredging. Additionally, after hatching larval herring would be vulnerable to suction dredging as they do not have the swimming ability in this life stage to avoid being entrained. Suction dredging during the winter should not occur in areas known to have spawning habitat for herring. Other channels that are being considered to add suction dredging are far more appropriate options for winter dredging to avoid listed and managed species.

Recommendation: The Department recommends removing the alternative for suction dredging during the winter in Richmond Inner Harbor from the Final EA/EIR.

Species Avoidance Pilot Study

Comment: The proposed pilot study will test deterrent methods such as light, sound, and air on the drag head to trigger an avoidance response and move aquatic species away from dredging activities. The pilot study is proposed for two years. The Department fully supports the proposed pilot study and the initial deterrent methods chosen to test. The Department would appreciate the opportunity to be involved in the development of the study and discussion on the deterrent methods being considered.

Recommendation: The Department recommends USACE engage all of the state and federal permitting and wildlife agencies as the pilot study is being formed. Inclusion of the agencies can bring different expertise into the pilot study formulation and assist with creating measures that will maximize the potential for finding a successful deterrent method.

Recommendation: The Department recommends USACE consult with the Department regarding the potential need for a Scientific Collection Permit and related 2081(a) Memorandum of Understanding for the potential collection or unintentional take of aquatic species for research purposes during the pilot study.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/SubmittingData#44524420-pdf-field-survey-form>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by the Department. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

The Department appreciates the opportunity to comment on the Draft EA/EIR to assist the San Francisco Regional Water Quality Control Board in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed Arn Aarreberg, Environmental Scientist, at (707) 791-4195 or R7CEQA@wildlife.ca.gov.

Sincerely,

Craig Shuman, D. Env
Marine Regional Manager

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State Clearinghouse (SCH No. 2024020498)

REFERENCES

CDFW, 2019. California Pacific Herring Fishery Management Plan. Available from:
<https://wildlife.ca.gov/Fishing/Commercial/Herring/FMP>.