June 3, 2015

Mr. Lawrence Goldzband, Executive Director
San Francisco Bay Conservation and Development Commission
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Via electronic mail to: lgoldzband@bcdc.ca.gov, steve.goldbeck@bcdc.ca.gov, brenda.goeden@bcdc.ca.gov, grace.gomez@bcdc.ca.gov

RE: Consistency Determination No. C2015.002.00, U.S. Army Corps of Engineers, San Francisco District, Maintenance Dredging 2015-2017

Dear Mr. Goldzband and Commissioners:

On behalf of San Francisco Baykeeper and The Bay Institute, and our over 3,000 members who use and enjoy the environmental, recreational, and aesthetic qualities of San Francisco Bay and its surrounding tributaries and ecosystems, we submit these comments regarding the Consistency Determination for the U.S. Army Corps of Engineers' ("Corps") proposed maintenance dredging operations in San Francisco Bay for the years 2015-2017 (the "Project"). Based on the best available science, the critical value of Bay sediment to shoreline vitality, and the need to protect critically endangered species, we urge BCDC to (1) condition the project to maximize beneficial reuse of dredged materials, as required by the Long Term Management Strategy for the Placement of Dredged Material in the Bay Region Management Plan ("LTMS"), and (2) require the immediate use of mechanical dredgers to prevent the illegal take of listed fish species.

I. The Project is Inconsistent with LTMS and Bay Plan Policies for Dredging.

Recent scientific studies led by the United States Geological Survey and others have found an overall sediment deficit throughout the San Francisco Bay, which has

resulted in significant environmental impacts related to shoreline erosion, wetland loss, sea level rise adaptation, and nutrient growth.[1] Dredging represents one of the major pathways for the removal of sediment from the estuary, particularly when dredged materials are placed at the San Francisco deep ocean disposal site ("DODS") and are no longer contributing to the coastal ecosystem. Given that the Corps is the principal dredger in San Francisco Bay, accounting for over 70% of the total dredging in 2013,[2] the impacts of this sediment removal must be properly considered.[3]

As described in the Consistency Determination,[4] the Corps is proposing to dredge and dispose of 6.075 million cubic yards of sediment from five federal channels over three years, and potentially place more than 50% of that sediment at the DODS. This proposal follows the LTMS 12-year review process, which indicated nominal rates of beneficial reuse in the future in favor of deep ocean disposal. *See* Figure 1. Such an approach is inconsistent with the goals of the LTMS to "[c]onduct dredged material disposal in the most environmentally sound manner," and to "[m]aximize the use of dredged material as a resource." The Project is also inconsistent with Bay Plan Policy 5, which provides that "dredging projects should maximize use of dredged material as a resource consistent with protecting and enhancing Bay natural resources, such as creating, enhancing, or restoring tidal and managed wetlands, creating and maintaining

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[1] *See, e.g.*, Dallas, K. L. & Barnard, P. L., "Linking human impacts within the estuary to ebb-tidal delta evolution," 56 Journal of Coastal Research, 713-716 (2009); Dallas, K. L. & Barnard, P. L., "Anthropogenic influences on shoreline and nearshore evolution in the San Francisco Bay coastal system," 92 Estuarine, Coastal and Shelf Science, 195-204 (2011); Barnard, P. L. et al., "Integration of bed characteristics, geochemical tracers, current measurement, and numerical modeling for assessing the provenance of beach sand in the San Francisco Bay Coastal System," 345 Marine Geology, 181-206 (2013); Barnard, P. L. et al., "Sand transport in the San Francisco Bay Coastal System: An overview," 345 Marine Geology, 3-17 (2013); San Francisco Estuary Institute, Pulse of the Estuary 2009, Bay Sediments: Past a Tipping Point, 3 (2009), *available at*: www.sfei.org/rmp/pulse.

[2] "Dredging and Placement of Dredged Material in San Francisco Bay January-December 2013 Report," Dredged Material Management Office, Appendix I (July 2014), *available at*: http://www.spn.usace.army.mil/Portals/68/docs/Dredging/Annual%20Reports/DMMO%202013%20Annual%20Report_Final%207-22-14.pdf.

[3] As discussed by Baykeeper in its comments on the Final Environmental Assessment/Environmental Impact Report ("Final EIR") for the Project, the Corps and the San Francisco Bay Regional Water Quality Control Board have failed to evaluate the significant environmental impacts related to sediment transport and depletion in San Francisco Bay that will result from these dredging activities. *See* Exhibit A at 4-7. As a responsible agency under the California Environmental Quality Act, the Commission should evaluate the need for a subsequent or supplemental EIR for this Project to address this deficiency. 14 Cal. Code Regs. §§ 15096; 15162-63.

[4] We note that the Staff Recommendation on the Consistency Determination for this Project was not released until May 29, 2015, just six days before the scheduled public hearing, in violation of 14 Cal. Code Regs. § 10381(a) (requiring that all staff comments on a permit application be distributed "no less than ten (10) days prior to the scheduled public hearing").

levees and dikes, providing cover and sealing material for sanitary landfills, and filling at approved construction sites."

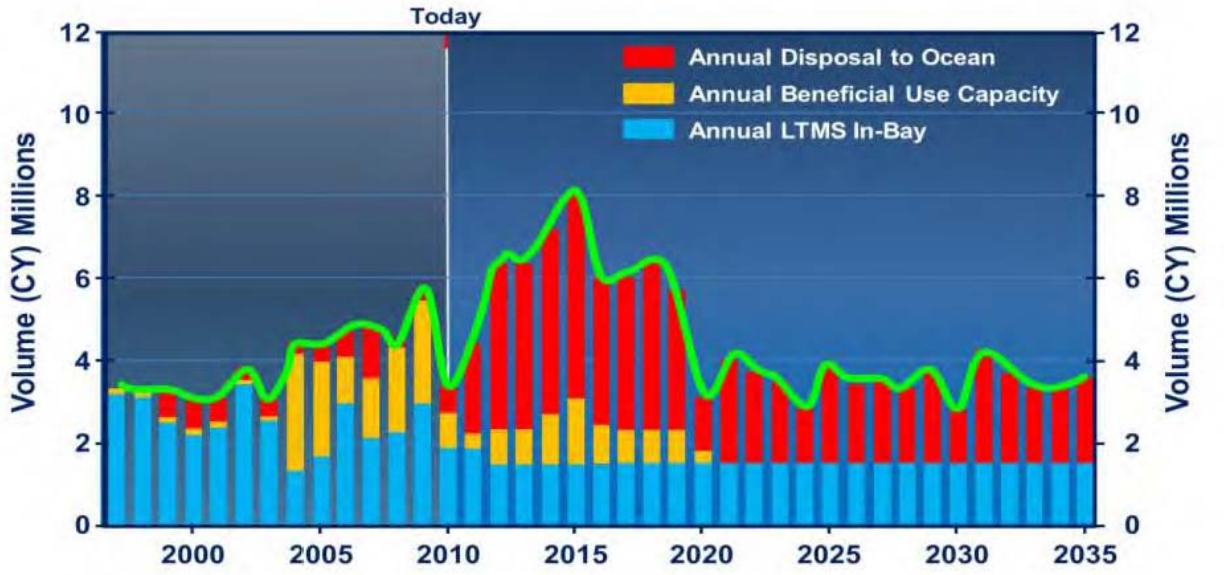

Figure 1. DMMP-Projected Ocean, Beneficial Reuse, and In-Bay Disposal Capacities[5]

In fact, Commission staff previously expressed concerns to the Corps and the San Francisco Bay Regional Water Quality Control Board ("Regional Water Board") regarding the consistency of the Project and LTMS policies:

> The Commission staff has concerns about the characterization of future maintenance dredging activities proposed by the USACE as being in compliance with the [LTMS] as well as being in compliance with the current and programmatic biological opinion. The DEA/EIR incorporates by reference the LTMS EIS/EIR whose stated goals include maximizing beneficial reuse of dredged sediment, minimizing in-Bay disposal and use of the San Francisco Deep Ocean Disposal Site (SFDODS) as an alternative to beneficial reuse when such reuse is infeasible... In the event that the USACE would not be in compliance as described, then the impacts of the proposed project would not be fully analyzed in [the] DEA/EIR. Therefore, staff believes it is important to include a complete discussion of the potential impacts and the actions the USACE would take if it is unable to comply with the LTMS Program or he current or proposed amendment to the biological opinion.

[5] LTMS 12-Year Review Meeting presentation (Mar. 29, 2012), *available at*: www.bcdc.ca.gov/dredging/LTMS12YR0329Pre.pdf.

Final EIR at C-17. In response to this comment, the Corps maintained its position that maximization of beneficial reuse would be pursued only when "costs are equivalent to the federal standard." *Id*.

The Corps' assertion that it is constrained in this regard by the "federal standard" is misleading. "Federal standard" is defined by regulation as "the dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the [Clean Water Act] 404(b)(1) evaluation process or ocean dumping criteria." 40 C.F.R. § 335.7. However, the Corps' own regulations require the consideration of factors other than cost in the selection of disposal sites. For example, the stated policy of the Corps for conducting dredging operations provides:

> The Corps of Engineers undertakes operations and maintenance activities where appropriate and *environmentally acceptable*. *All practicable and reasonable alternatives are fully considered on an equal basis*. This includes the discharge of dredged or fill material into waters of the U.S. or ocean waters in the least costly manner, at the least costly and most practicable location, and *consistent with engineering and environmental requirements*.

33 C.F.R. § 335.4 (emphasis added). In evaluating the discharge of dredged materials into waters of the U.S., the Corps is specifically required to formulate and consider "environmentally acceptable alternatives" through compliance with the National Environmental Policy Act, comply with the "environmental protection provisions of the [Clean Water Act] and [Ocean Dumping Act]," "determine whether the proposed project is consistent with state coastal zone management program to the maximum extent practicable" under the Coastal Zone Management Act, and review "the potential impact on threatened or endangered species" pursuant to the Endangered Species Act, among other requirements. 33 C.F.R. § 336.1(c). The Clean Water Act section 404(b)(1) evaluation process referenced in the definition of "federal standard" also requires compliance with other federal and state environmental requirements. *See* 40 C.F.R. § 230.10(b).

Of particular importance here, the Coastal Zone Management Act requires the Corps' dredging projects to be "carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State

management programs," including the LTMS and the Bay Plan. 16 U.S.C. § 1456(c); *see* 33 C.F.R. § 337.2(a) ("District engineers should cooperate to the maximum extent practicable with state agencies to prevent violation of Federally approved state water quality standards and to achieve consistency to the maximum degree practicable with an approved coastal zone management program."). The phrase "consistent to the maximum extent practicable" is defined as "fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency." 15 C.F.R. § 930.32(a)(1). Moreover, "Federal agencies shall not use a general claim of a lack of funding or insufficient appropriated funds or failure to include the cost of being fully consistent in Federal budget and planning processes as a basis for being consistent to the maximum extent practicable with an enforceable policy of a management program." *Id*. § 930.32(a)(3).

Moreover, based on LTMS 12-year review documentation, it is not clear whether deep ocean disposal is in fact the least costly alternative. *See* Figure 2. The trend between 1999 and 2008 indicates deep ocean disposal costs have increased substantially, driven by fuel costs, to the point where beneficial reuse at Montezuma wetlands was considered "competitive with SFDODS."[6] Cost analyses have not been performed to assess the feasibility of beneficial reuse in the South Bay Salt Pond Restoration Project, though recent modeling suggests strategic in-Bay disposal at dispersive sites could deliver 20% of deposited dredged material to mudflats and the breached salt ponds, if dredged material was deposited in the vicinity of Dumbarton Bridge.[7] Existing environmental documentation has not evaluated the benefits of strategic in-bay disposal, nor the deleterious effects of deep ocean disposal.

[6] LTMS 12-Year Review Meeting presentation (Mar. 29, 2012), *available at*: www.bcdc.ca.gov/dredging/LTMS12YR0329Pre.pdf.

[7] Numerical Modeling of Sediment Dispersal Following Dredge Material Placements to Examine Possible Augmentation of the Sediment Supply to Marshes and Mudflats, San Francisco Bay, USA.

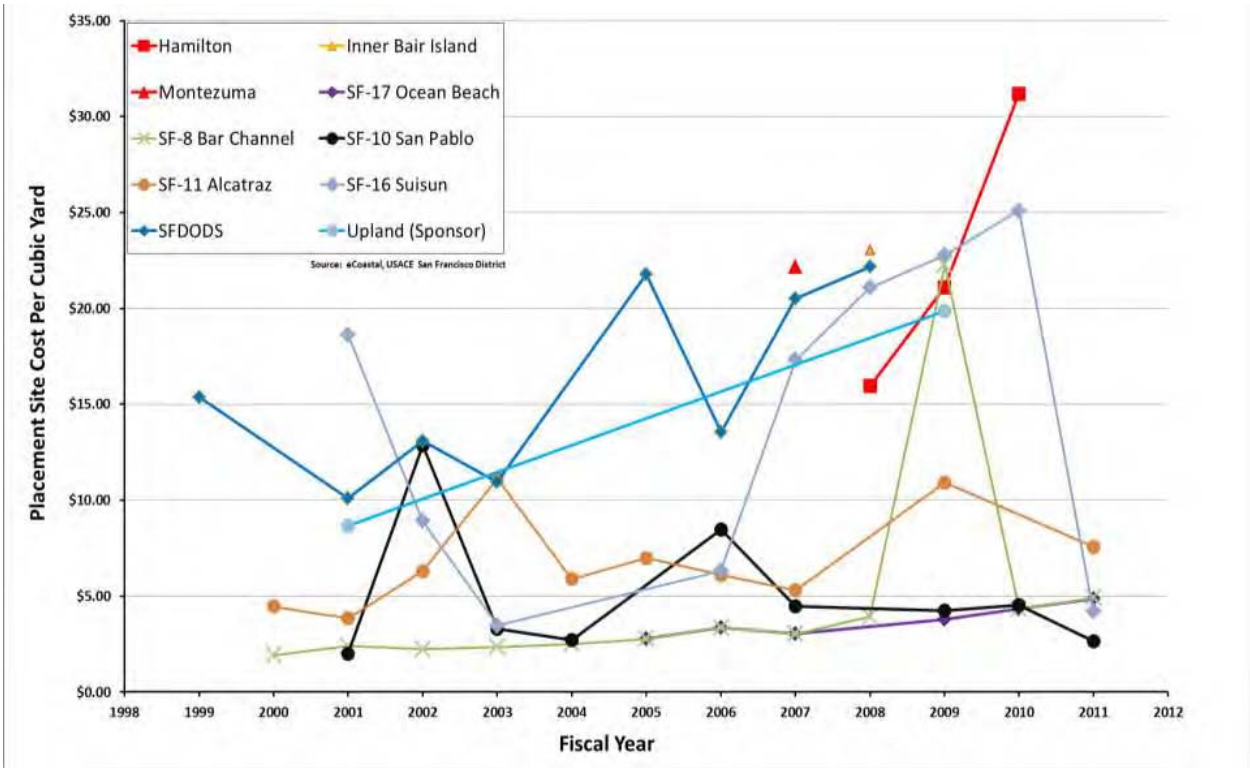

Figure 2. Placement Site Cost Per Cubic Yard for USACE Maintenance Dredging Projects

In sum, the Corps' proposal to continue to waste sediment by dumping up to half of the dredged material from the Project at the DODS fails to "maximize the use of dredged material as a resource" and is inconsistent with the LTMS or the Bay Plan policies on dredging. The Corps' contention that it must only consider cost, rather than applicable legal requirements, in its selection of disposal sites has no basis in law and must be rejected.

II. The Project is Inconsistent with Bay Plan Policies on Fish, Other Aquatic Organisms and Wildlife or Subtidal Areas.

Baykeeper and The Bay Institute are greatly concerned about the significant adverse impacts to special status species that will result from this Project, especially to critically imperiled fish such as Delta smelt and longfin smelt. As noted in the Consistency Determination, the Corps' has estimated that up to 29 percent of the medial annual population abundance of Delta smelt, and 8 percent of longfin smelt, are entrained by hydraulic dredging activities that are part of this Project. Recent

abundance numbers for these fish have been at historic lows, putting them on the brink of extinction.[8]

Under the Bay Plan, Fish, Other Aquatic Organisms and Wildlife Policy 2 provides that:

> Specific habitats that are needed to conserve, increase or prevent the extinction of any native species, species threatened or endangered, species that the California Department of Fish and Game has determined are candidates for listing as endangered or threatened under the California Endangered Species Act, or any species that provides substantial public benefits, should be protected, whether in the Bay or behind dikes.

In addition, Fish, Other Aquatic Organisms and Wildlife Policy 4.b states that the Commission should:

> Not authorize projects that would result in the "taking" of any plant, fish, other aquatic organism or wildlife species listed as endangered or threatened pursuant to the state or federal endangered species acts, or the federal Marine Mammal Protection Act, or species that are candidates for listing under the California Endangered Species Act, unless the project applicant has obtained the appropriate "take" authorization from the U.S. Fish and Wildlife Service, National Marine Fisheries Service or the California Department of Fish and Game.

Furthermore, Subtidal Area Policy 1 states that:

> Any proposed filling or dredging project in a subtidal area should be thoroughly evaluated to determine the local and Bay-wide effects of the project on: (a) the possible introduction or spread of invasive species; (b) tidal hydrology and sediment movement; (c) fish, other aquatic organisms and wildlife; (d) aquatic plants; and (e) the Bay's bathymetry. Projects in subtidal areas should be designed to minimize and, if feasible, avoid any harmful effects.

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[8] *See* "News worsens for rare Delta fish; Smelt's decline reflects health of estuary as a whole," Stockton Record (Apr. 18, 2015), *available at*: http://www.recordnet.com/article/20150418/NEWS/150419726/101095/A_NEWS; "California drought: Delta smelt survey finds a single fish, heightening debate over water supply," San Jose Mercury News (Apr. 15, 2015), *available at*: http://www.mercurynews.com/drought/ci_27918392/california-drought-delta-smelt-survey-tallies-one-fish.

Finally, Mitigation Policy 1 provides that:

> Projects should be designed to avoid adverse environmental impacts to Bay natural resources such as to water surface area, volume, or circulation and to plants, fish, other aquatic organisms and wildlife habitat, subtidal areas, or tidal marshes or tidal flats. Whenever adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable.

To date, the mitigation measures and other steps that have been taken by the Corps and the Regional Water Board to address significant species impacts have failed to ensure consistency with these policies. First, the primary mitigation relied upon to address species impacts are the "work windows" established by the 1998 LTMS programmatic biological opinion. However, given subsequent species listings, critical habitat designations, the pelagic organism decline, and the advancement of science that have occurred during the past 17 years, that biological opinion is now greatly outdated. While the Consistency Determination notes that the 1998 biological opinion is being revised, it is entirely unclear how any reasonable and prudent alternatives or other mitigation measures that result from that process will be incorporated into the Project. In any event, the issuance of a programmatic biological opinion for the LTMS does not satisfy the Corps' duties under section 7(a)(2) of the Endangered Species Act to consult with the appropriate wildlife agencies regarding the specific maintenance dredging activities that constitute *this Project*. *See* 16 U.S.C. § 1536(a)(2) (requiring Federal agencies to ensure that "any action" authorized, funded, or carried out by such agency will not result in jeopardy to listed species or adverse modification of critical habitat).

Second, as noted by the California Department of Fish and Wildlife ("DFW"), the Corps has shown a "continuing need" for work window extensions in some areas of the Bay "year after year." Final EIR at C-10. As shown in Table 1, between 2000 and 2012, between 27% and 61% of all dredging projects occurring in the Bay took place outside work windows and the majority of the volume extracted during these times was associated with Corps projects.[9] Consequently, the impacts of conducting dredging operations outside of these work windows, as well as mitigation measures to address identified impacts, must be discussed and evaluated by the agencies.

In addition, the August 1st-November 30th work window condition established by the Regional Water Board and included by the Commission (Special Condition J.2.b.8.) for hydraulic dredging in the Central Bay will not result in the desired

[9] Based on dredge volume data received from BCDC.

protection for longfin smelt. In fact, as noted in comments by The Bay Institute to the Regional Water Board, hydraulic dredging during this time period may result in high levels of entrainment because pre-spawning adult longfin smelt aggregate in the Central Bay during spring and summer, including August and September, before moving into the northern estuary (Suisun Bay and the western Delta) from October through March. In addition, larval longfin smelt are uncommon in the Central Bay between December and February/March. Therefore, to avoid entrainment impacts to pre-spawning adult and young-of-year longfin smelt, dredging activities in the Central Bay should be completed between December and mid-February.

Table 1. Proportion of total dredged volume and projects occurring outside designated work windows

Year	% Total Projects Outside Work Window	% Total Volume Outside Work Window	% of Corps Volume Outside Work Windows	% Total Volume Outside Work Window from Corps Projects
2000	61%	32%	73%	52%
2001	58%	34%	33%	79%
2002	60%	41%	51%	78%
2003	51%	26%	26%	59%
2004	43%	27%	12%	21%
2005	42%	20%	31%	63%
2006	35%	10%	7%	33%
2007	27%	24%	28%	68%
2008	27%	23%	46%	65%
2009	50%	17%	17%	79%
2010	43%	33%	66%	72%
2011	30%	33%	45%	90%
2012	29%	46%	61%	90%

As further noted in comments by DFW, impacts on longfin smelt from the use of cutterhead, suction, and hopper dredging have not been addressed. Final EIR at C-10. Given that the issuance of an incidental take permit under CESA is subject to CEQA documentation, the Final EIR is flawed in that it fails to properly address impacts, mitigation measures, and a mitigation monitoring and reporting program for all state-listed species. Significantly, the Regional Water Board has failed to submit an application for an incidental take permit to DFW for this Project as required by Fish and Game Code section 2081(b). *See* Exhibit B.

Finally, both the Regional Water Board and the Commission have conditioned certification for the Project on limiting hydraulic suction hopper dredging inside San Francisco Bay "beginning in 2017" to reduce entrainment of Delta smelt and longfin smelt. However, this condition is inadequate for species that are literally on the brink of extinction, and we urge the Commission to require that mechanical dredging be required immediately. Any delay of this measure due to the Corps' three-year budget process program is irrelevant and inconsistent with the purposes of the federal Endangered Species Act. (*See TVA v. Hill*, 437 U.S. 153 (1978) ["[t]he plain intent of Congress in enacting [the ESA] was to halt and reverse the trend toward species extinction, whatever the cost"]; *San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d 581, 636-37 (9th Cir. 2014) (finding that Congress made "a conscious decision…to give endangered species priority over the 'primary missions' of federal agencies").

In sum, the maintenance dredging Project proposed by the Corps, which will result in the significant take of listed species without adequate mitigation or proper authorization from state and federal wildlife agencies, is inconsistent with the Bay Plan Policies for Fish, Other Aquatic Organisms and Wildlife or Subtidal Areas. The conditions proposed on the Project by the Commission are not sufficient to avoid, minimize, or mitigate for impacts to listed species, as required by the Coastal Zone Management Act and the Commission's policies.

III. Conclusion

A healthy San Francisco Bay which is resilient to sea level rise and other phenomenon related to climate change requires the Corps to utilize beneficial reuse to the greatest extent possible. While the proposed limitations on hopper dredging are a step in the right direction to protect Delta and longfin smelt, these conditions must be strengthened to make sure that these fragile species survive. We urge the Commission to condition this Project to fulfill these objectives and ensure consistency with the Bay Plan and other applicable requirements.

Sincerely,

George Torgun
Managing Attorney
San Francisco Baykeeper

Gary Bobker
Program Director
The Bay Institute

Exhibit A

SAN FRANCISCO BAYKEEPER®

May 8, 2015

Elizabeth Christian
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U.S. Army Corps of Engineers and
San Francisco Bay Regional Water Quality Control Board
c/o Linda Peters, Project Manager
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Transmitted via Electronic Mail

Re: Final Environmental Assessment/Environmental Impact Report for Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015 – 2024 (SCH #2013022056)

Dear Ms. Christian and Ms. Peters:

On behalf of San Francisco Baykeeper ("Baykeeper") and our over 3,000 members who use and enjoy the environmental, recreational, and aesthetic qualities of San Francisco Bay and its surrounding tributaries and ecosystems, I respectfully submit these comments for consideration by the San Francisco Regional Water Quality Control Board ("Regional Board") and the U.S. Army Corps of Engineers ("Corps") with regard to the Final Environmental Assessment/Environmental Impact Report ("Final EIR") for Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015 – 2024 (hereinafter, the "Project").[1] Prior to certification by the Regional Board, Baykeeper respectfully requests that the Final EIR be revised to: (1) properly define the "no project alterative" and evaluate the impacts of not approving the Project; (2) consider the impacts of the Project on sediment transport and depletion; and (3) adequately address and mitigate significant impacts on special status species.

On April 20, 2015, Baykeeper submitted comments to the Regional Board in opposition to the proposed Tentative Order and Application for Reissued Waste Discharge Requirements and

[1] Baykeeper previously submitted comments to the Regional Board and the Corps regarding the Draft EIR for this project on January 20, 2015. (*See* Final EIR at C-49 – C-57.) As discussed below, the Final EIR does not adequately respond to Baykeeper's comments. In its denial of a request for an extension of the Draft EIR comment period, the Regional Board stated that the public would "have an opportunity to comment on the final EA/EIR and draft permit when it is circulated." (Final EIR at C-75.)

Clean Water Act Section 401 Water Quality Certification for U.S. Army Corps of Engineers San Francisco District 2015-2019 Maintenance Dredging Program. Those comments are attached for your convenience as Exhibit 1 and are hereby incorporated by reference.

I. The Final EIR Improperly Defines the "No Project Alternative."

With the goal of "foster[ing] informed decisionmaking and public participation," the California Environmental Quality Act ("CEQA") mandates that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." (CEQA Guidelines § 15126.6(a).) In addition, the EIR must separately evaluate the "specific alternative of 'no project'" and the environmental impacts of not approving the proposed project. (*Id*. § 15126.6(e)(1).) The no-project analysis should reflect "what would reasonably be expected to occur in the foreseeable future if the project were not approved." (*Id*. § 15126.6(e)(2).)

Here, the Final EIR defines the "No Project Alternative" as the continuation of "current maintenance dredging practices for the projects it maintains in San Francisco Bay." (Final EIR at 2-13.) The Final EIR states that this determination is based on CEQA Guidelines section 15126.6(e)(3)(A), which provides that "when the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the no project alternative will be the continuation of the existing plan, policy or operation into the future." (*Id*.) However, this provision of the Guidelines is not applicable to this Project.

As the CEQA Guidelines provide, "[t]he purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project *with the impacts of not approving the proposed project*." (Guidelines § 15126.6(e)(1) [emphasis added].) Here, a decision to reject the Corps' proposed maintenance dredging project for years 2015 through 2024 would not allow for the continuation of current maintenance dredging operations, because the Corps would not have the required permits or approvals to conduct such activities. (*See, e.g.*, Final EIR at ES-1 ["This document is also intended to fulfill the Regional Water Board's CEQA compliance requirements for issuance of a 10-year WQC to USACE"].) The "No Project Alternative" must be revised to reflect such realities.

As discussed in Baykeeper's comments on the Draft EIR, this faulty approach has resulted in a "severely circumscribed" analysis of environmental impacts because comparing two very similar projects (*i.e*., the continuation of the current dredging program and the proposed Project) guarantees a conclusion that there are "no environmental impacts" from the proposed Project. (Final EIR at C-56.) The Final EIR does not directly respond to this comment, but refers to another set of responses (CSD-14 and CSD-18). (*Id*.) In those responses, the Final EIR attempts to rely on the recent court decision in *Center for Biological Diversity v. Dept. of Fish and Wildlife* (2015) 234 Cal. App. 4th 214, to justify its claim that "the appropriate no project alternative is USACE's ongoing maintenance dredging activities." (*See* Final EIR at C-33.) In that case, which involved the Department of Fish and Wildlife's fish hatchery and stocking program, the court stated that:

> Under CEQA, where the EIR is reviewing an existing operation or changes to that operation, the no project alternative is the existing operation. Moreover, where a statutory mandate leaves a state agency no discretion to cease or discontinue an existing operation, the no project alternative is the statutorily mandated project.

(*Center for Biological Diversity*, *supra*, 234 Cal. App. 4th at 253.)

Based on this statement, the Final EIR contends that "the Basin Plan required that the Regional Water Board consider the beneficial use of navigation for the project area." (Final EIR at C-33.) However, navigation is just one of several beneficial uses that the Regional Board must "consider" under the Basin Plan, including cold freshwater habitat, commercial and sport fishing, estuarine habitat, fish migration, preservation of rare and endangered species, fish spawning, and wildlife habitat. There is nothing in the Basin Plan that compels approval of this Project, and the Regional Board can point to no other statutory mandate leaving it with "no discretion to cease or discontinue" the existing maintenance dredging operations. To the contrary, the Regional Board retains substantial discretion to "grant[] or den[y] certification" for the project under Section 401 of the Clean Water Act, 33 U.S.C. § 1341, to issue waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act, and to require changes to the project to avoid or substantially lessen significant environmental impacts. (Final EIR at 2-24, 3.4-2.)

The Regional Board next claims that "[a] 'no maintenance dredging' alternative was rejected because 'it would not meet the purpose and need of the project to maintain safe navigation of all the federal navigation channels, and would be expected to have significant economic and safety impacts.'" (Final EIR at C-33.) However, the requirement of a potential alterative to meet the purpose and need or feasibly attain the objectives of a project does not apply to the separate no-project analysis. (CEQA Guidelines § 15126.6(a); *see Planning & Conservation League v. Fish & Game Comm'n* (1997) 16 Cal.4th 892, 917-18 [an EIR must discuss a "no project" alternative regardless of whether such an alternative is considered feasible].) By definition, the circumstance where the project does not proceed will not meet the purpose and need or objectives of any project. Rather, the no-project alternative serves an important and independent role in informing the public and decisionmakers of the environmental effects of the project as compared to "doing nothing." (*Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal. App. 4th 892, 911; *see* Guidelines § 15126.6(e).)

The significant deficiencies in the Final EIR's analysis of environmental impacts as a result of this approach are readily apparent. For example, the Final EIR claims that there will be no significant impacts related to sediment transport because maintenance dredging "has occurred on a regular basis for several decades" and "the project does not represent a new source of sediment removal." (Final EIR at C-50.) This statement makes no sense given the fundamental purposes of an EIR to identify the significant environmental effects of a proposed project and evaluate ways of avoiding or minimizing those effects. (Pub. Res. Code §§ 21002.1(a), 21061.) The removal of millions of cubic yards of sediment per year for the next ten years as a result of the proposed Project will have significant impacts on shoreline erosion, wetland loss, sea level rise adaptation, and nutrient growth that must be addressed. The Final EIR's repeated treatment of the "No Project Alterative" and the "Proposed Project" as the same for purposes of analyzing environmental impacts

renders the entire CEQA process meaningless. Unless this deficiency is fixed, the Final EIR is fundamentally flawed and does not meet the basic purposes of CEQA "to inform the public and decision makers of the consequences of environmental decisions before those decisions are made." (*Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 691.)

II. The Final EIR Fails to Evaluate Numerous Impacts Related to Sediment Transport and Depletion.

The Final EIR fails to adequately respond to Baykeeper's discussion of the significant environmental impacts related to sediment transport and depletion in San Francisco Bay that will result from the Project. (*See* Final EIR at C-49 – C-52.) Rather than conducting a full analysis regarding these issues, the Response to Comments merely states:

> Sediment depletion was noted on page 3.4-8 of the Draft Environmental Assessment (EA)/Environmental Impact Report (EIR): "Over the last half-century, sediment loss trends have been documented in San Pablo Bay, Suisun Bay, and Central Bay, while the South Bay has shown net accretion (Barnard et al., 2013)."

(Final EIR at C-49.) Neither the statement that sediment depletion was "noted" nor this single reference from the Final EIR constitute the analysis required by CEQA. (*See* CEQA Guidelines § 15126.2.)

In fact, Baykeeper's comments identified several highly relevant, recent scientific studies regarding sediment transport in San Francisco Bay,[2, 3, 4, 5, 6, 7, 8, 9, 10, 11] which the Final EIR fails to

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[2] Dallas, K. L. & Barnard, P. L., "Linking human impacts within the estuary to ebb-tidal delta evolution," 56 Journal of Coastal Research, 713-716 (2009).

[3] Dallas, K. L. & Barnard, P. L., "Anthropogenic influences on shoreline and nearshore evolution in the San Francisco Bay coastal system," 92 Estuarine, Coastal and Shelf Science, 195-204 (2011).

[4] Barnard, P. L. *et al*., "Integration of bed characteristics, geochemical tracers, current measurement, and numerical modeling for assessing the provenance of beach sand in the San Francisco Bay Coastal System," 345 Marine Geology, 181-206 (2013).

[5] Barnard, P. L. *et al*., "Sand transport in the San Francisco Bay Coastal System: An overview," 345 Marine Geology, 3-17 (2013).

[6] San Francisco Estuary Institute, Pulse of the Estuary 2009, Bay Sediments: Past a Tipping Point, 3 (2009), *available at* www.sfei.org/rmp/pulse.

[7] Erikson, L.H., Wright, S.A., Elias, E., Hanes, D.H., Schoellhamer, D.H., Largier, J., "The use of modeling and suspended sediment concentration measurements for quantifying net suspended sediment transport through a large tidally dominated inlet," 345 Marine Geology, 98–114 (2013).

[8] McGann, M., Erikson, L., Wan, E., Powell II, C., Maddocks, R.F., "Distribution of biologic, anthropogenic, and volcanic constituents as a proxy for sediment transport in the San Francisco Bay Coastal System," 345 Marine Geology, 115–144 (2013).

[9] Rosenbauer, R.J., Foxgrover, A.C., Hein, J.R., Swarzenski, P.W., "A Sr–Nd isotopic study of sand-sized sediment provenance and transport for the San Francisco Bay Coastal System," 345 Marine Geology, 145–153 (2013).

[10] Wong, F.L., Woodrow, D.L., McGann, M., "Heavy mineral analysis for assessing the provenance of sandy sediment in the San Francisco Bay Coastal System," 345 Marine Geology, 172–182 (2013).

[11] Hein, J., Mizella, K., Barnard, P., "Sand sources and transport pathways for the San Francisco Bay coastal system based on X-ray diffraction mineralogy," 345 Marine Geology, 154-169 (2013).

consider. (*See* Final EIR at C-50 – C-51.) Instead, the Corps and Regional Board claim that they "are not aware of any study or studies that have concluded that USACE's maintenance dredging program significantly 'causes or contributes to the growing sediment deficit in the Bay'" (Final EIR at C-50.) This response is inadequate and highlights the agencies' failure to consider the relevant information presented. First, the statement that the Corps and Regional Board are "not aware" of any study concluding that the Corps' maintenance dredging project impacts sediment transport in San Francisco Bay borders on absurdity. Presumably, the specific analysis and conclusions that the Corps and the Regional Board are seeking should be contained within the Final EIR for *this Project*.

Second, given that the Corps is responsible for the majority of dredging that occurs in San Francisco Bay, the scientific studies cited by Baykeeper identifying dredging as a significant contributor to San Francisco Bay's increasing sediment deficit clearly apply to this Project. For example, the Dredged Material Management Office's ("DMMO") latest annual report, "Dredging and Placement of Dredged Material in San Francisco Bay January-December 2013 Report," calculated that the Corp's dredging projects amounted to approximately 70% of the total dredging in the Bay in 2013.[12] Since the Corps is the principal dredger in San Francisco Bay, the Final EIR must include a thorough analysis of the impacts of dredging on sediment transport in San Francisco Bay, as discussed in the cited literature.

Baykeeper would like to draw the Corps' and Regional Board's attention to the following excerpts from the cited scientific studies, which pertain directly to the impacts of dredging on sediment transport in San Francisco Bay.

(1) Dallas, K. L. & Barnard, P. L., "Linking human impacts within the estuary to ebb-tidal delta evolution," 56 Journal of Coastal Research, 713-716 (2009):

- San Francisco Bay is one [of] the largest estuaries in the United States and has been continuously altered by a range of activities, including influx by hydraulic mining debris, mining of fill for bay development, *dredging of harbors and waterways*, and mining of sand and gravel for use as construction aggregate. (*Id*. at 713 [emphasis added].)
- Since 1900 a minimum of 130 million m^3 (Mcm) of sediment has been permanently removed from the San Francisco Bay and adjacent coastal ocean through borrow pit mining (27 Mcm), aggregate mining (26 Mcm), *and dredging (77 Mcm)*. (*Id*. at 714 [emphasis added].)
- With new management plans calling for an increase in *out of bay dredge disposal*, and aggregate companies lobbying to extract greater volumes, it is likely these activities will further limit the available sediment supplied to the bar. (*Id*. at 716 [emphasis added].)

[12] Baykeeper's independent calculations indicate that DMMO miscalculated the reported total for this data, and that, when all dredging volumes are properly added, the percentage of the Corps' dredging increases to over 80%. "Dredging and Placement of Dredged Material in San Francisco Bay January-December 2013 Report," Dredged Material Management Office, Appendix I (July 2014), *available at* http://www.spn.usace.army.mil/Portals/68/docs/Dredging/Annual%20Reports/DMMO%202013%20Annual%20Report_Final%207-22-14.pdf.

(2) Dallas, K. L. & Barnard, P. L., "Anthropogenic influences on shoreline and nearshore evolution in the San Francisco Bay coastal system," 92 Estuarine, Coastal and Shelf Science, 195-204 (2011):

- A minimum of 200 million m^3 of sediment has been permanently removed from the [San Francisco Bay] system *by dredging*, aggregate mining, and borrow pit mining. (*Id*. at 203 [emphasis added].)

(3) Barnard, P. L. *et al*., "Integration of bed characteristics, geochemical tracers, current measurement, and numerical modeling for assessing the provenance of beach sand in the San Francisco Bay Coastal System," 345 Marine Geology, 181-206 (2013):

- At present . . . *dredging* removes about 3 million m^3/yr of sediment, with the majority of this material permanently removed from the San Francisco Bay Coastal System. (*Id*. at 202 [emphasis added].)
- [T]his work also highlights the need to more efficiently manage existing in-Bay sediment resources, as active aggregate mining and *dredging* occurs along well-defined sand transport pathways that carry sediment toward outer coast beaches, at removal rates that exceed the present-day sediment supply rates from all San Francisco Bay watersheds. (*Id*. at 203 [emphasis added].)

(4) Barnard, P. L. *et al*., "Sand transport in the San Francisco Bay Coastal System: An overview," 345 Marine Geology, 3-17 (2013):

- Over the last century, a minimum of 200 million m^3 of sediment has been permanently removed from the San Francisco Bay Coastal System through *dredging*, aggregate mining, and borrow pit mining. (*Id*. at section 2.2.4 [emphasis added].)
- *Dredging* removes about 3 million m^3/year of sediment out of navigation channels and from other channel and berth maintenance projects, with the majority of this material permanently removed from the San Francisco Bay Coastal System via deep-water disposal in the Pacific Ocean, [. . .] roughly equivalent to the annual sediment supply from the Central Valley. (*Id*. at section 2.2.4 [emphasis added].)

(5) Erikson, L.H., Wright, S.A., Elias, E., Hanes, D.H., Schoellhamer, D.H., Largier, J., "The use of modeling and suspended sediment concentration measurements for quantifying net suspended sediment transport through a large tidally dominated inlet," 345 Marine Geology, 98–114 (2013):

- A quantitative understanding of sediment delivered to, stored within, and exported from an estuary is important for a number of issues including *maintenance dredging of navigation channels*, sand mining, light availability for primary productivity, creation and sustainability of tidal wetlands, and the transport of particle-bound nutrients and contaminants. (*Id*. at 96 [emphasis added].)

(6) McGann, M., Erikson, L., Wan, E., Powell II, C., Maddocks, R.F., "Distribution of biologic, anthropogenic, and volcanic constituents as a proxy for sediment transport in the San Francisco Bay Coastal System," 345 Marine Geology, 115–144 (2013):

- Aggregate mining, *dredging*, and borrow pit mining has also been responsible for the removal of large quantities of sediment from the Bay. (*Id*. at 119 [emphasis added].)

In sum, the Final EIR fails to properly consider the significant impacts related to sediment transport and depletion caused by the Project, including shoreline erosion, wetland loss, sea level rise adaptation, and nutrient growth in San Francisco Bay. The Final EIR cannot be certified until these impacts have been adequately evaluated and mitigated.

III. The Final EIR Fails to Adequately Address Impacts to Special Status Species.

Baykeeper is greatly concerned about the significant adverse impacts to special status species that will result from this Project, including impacts to federally and state-listed Chinook salmon, steelhead, green sturgeon, Delta smelt, and longfin smelt, as well as commercially valuable species such as Pacific herring and Dungeness crab. Unfortunately, the Final EIR relies on outdated information and suffers from the same deficiencies discussed above in its analysis of environmental impacts. For example, much of the discussion in the Final EIR finds less than significant impacts by treating the "No Project Alternative" and "Proposed Project" as the same or similar actions, thereby masking the actual impacts of maintenance dredging operations over the next ten years. (*See, e.g.*, Final EIR at 3.6-28.)

The discussion of impacts in the Biological Resources section also repeatedly relies on the "work windows" established by the 1998 LTMS biological opinion to treat impacts as less than significant. (*See, e.g.*, Final EIR at 3.6-33 ["Effects to special-status and commercially important species resulting from entrainment would be significant under the No Project Alternative and Project, but would be reduced to less than significant with implementation of the LTMS work windows"].) As noted by the California Department of Fish and Wildlife ("DFW"), the Corps has shown a "continuing need" for work window extensions in some areas of the Bay "year after year." (Final EIR at C-10.) Consequently, the impacts of conducting dredging operations outside of these work windows, as well as mitigation measures to address identified impacts, must be discussed and evaluated in the Final EIR.

Moreover, given the new species listings, critical habitat designations, pelagic organism decline, and the advancement of science that have occurred during the past 17 years, the 1998 LTMS programmatic biological opinion is now greatly outdated. While the Final EIR notes that the 1998 LTMS programmatic biological opinion is being revised (Final EIR at 3.6-2), it is entirely unclear how any reasonable and prudent alternatives or other mitigation measures that result from that process will be incorporated into the Final EIR. In any event, the issuance of programmatic biological opinion for the LTMS does not satisfy the Corps' duties under section 7(a)(2) of the Endangered Species Act to consult with the appropriate wildlife agencies regarding the specific maintenance dredging activities that constitute the proposed Project. (16 U.S.C. § 1536(a)(2).) As noted in comments from the San Francisco Bay Conservation and Development Commission, it is

improper for the Corps and Regional Board to characterize this Project "as being in compliance with the [LTMS]" or "the current and proposed programmatic biological opinion" because it does not achieve the goals of the LTMS program to "maximiz[e] beneficial reuse of dredged sediment" and "minimiz[e] in-Bay disposal and use of the San Francisco Deep Ocean Disposal Site." (Final EIR at C-17.) Thus, the Corps must separately consult with the appropriate wildlife agencies regarding the impacts of *this Project* prior to certification of the Final EIR.

It is also unclear from the Final EIR whether the Regional Board has properly complied with the California Endangered Species Act ("CESA") or with its CEQA duties to evaluate impacts to state-listed species. As stated in comments from DFW, the impacts on longfin smelt from the use of cutterhead, suction, and hopper dredging have not been addressed. (Final EIR at C-10.) Moreover, given that the issuance of an incidental take permit under CESA is subject to CEQA documentation, the Final EIR must specify impacts, mitigation measures, and a mitigation monitoring and reporting program for all state-listed species. While the responses to comments note that the Regional Board "must consult with the CDFW when considering the approval of proposed projects that may adversely impact state-listed threatened or endangered species" (Final EIR at C-10), it is unclear if the Regional Board has done so or whether it will be able to secure an incidental take permit for this Project.

Finally, while Baykeeper thanks the Regional Board for conditioning water quality certification for the project on limiting hydraulic suction hopper dredging inside San Francisco Bay beginning in 2017 to reduce entrainment of Delta smelt and longfin smelt, these conditions are inadequate and must be made more stringent. Recent abundance numbers for Delta smelt have been at historic lows and the species is on the brink of extinction.[13] Baykeeper is extremely concerned about the fragile state of this species, and urges the Regional Board to strengthen the mitigation measures in the Final EIR to require that mechanical dredging be required immediately. In particular, waiting to begin the phase-out of hopper dredging until 2017 could result in the imminent extinction of the species, especially given model estimates showing that "up to approximately 29 percent of the median annual population abundance" of Delta smelt are entrained during hydraulic dredging activities. (Final EIR at 3.6-37.) The delay of this measure due to the Corps' three-year budget process for its operations and maintenance program (*see* Final EIR at 2-24) is irrelevant and inconsistent with the purposes of the federal Endangered Species Act. (*See TVA v. Hill*, 437 U.S. 153 (1978) ["[t]he plain intent of Congress in enacting [the ESA] was to halt and reverse the trend toward species extinction, whatever the cost"].) Certification of the Project cannot be approved without additional measures to protect species struggling to survive.

IV. Conclusion.

Baykeeper strongly opposes the Regional Board's certification of the Final EIR for Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015 – 2024 until the deficiencies discussed above have been remedied. A healthy San Francisco Bay which is resilient to sea level rise and other phenomenon related to climate change requires the

[13] *See* "News worsens for rare Delta fish; Smelt's decline reflects health of estuary as a whole," Stockton Record (Apr. 18, 2015), *available at* http://www.recordnet.com/article/20150418/NEWS/150419726/101095/A_NEWS.

Corps to utilize beneficial reuse to the greatest extent possible. While the proposed conditions on hopper dredging are a step in the right direction to protect Delta and longfin smelt, these conditions must be strengthened to make sure that these fragile species survive.

Sincerely,

George Torgun
Managing Attorney
San Francisco Baykeeper

Exhibit B

SAN FRANCISCO BAYKEEPER

George Torgun <george@baykeeper.org>

RE: CESA Consultation re Maintenance Dredging of Federal Navigation Channels in SF Bay

1 message

Little, Shannon@Wildlife <Shannon.Little@wildlife.ca.gov> Fri, May 29, 2015 at 2:46 PM
To: "george@baykeeper.org" <george@baykeeper.org>
Cc: Wildlife PRA Coordinator <PRACoordinator@wildlife.ca.gov>

Mr. Torgun,

In response to your questions below, CDFW has not received an incidental take permit application under Fish and Game Code section 2081(b), or a request for a consistency determination under Fish and Game Code section 2080.1, related to this project.

Although not specifically described as such, the Department determined it will treat your request for records relevant to the two questions in your email as a request under the California Public Records Act, and will comply with your request by providing you access to our copies of all responsive documents in the public domain that are not exempt from disclosure.

The Department anticipates completing your request within ninety days of today's date, though sooner if possible. Please note the PRA requires disclosure of existing records which are in the possession of the Department. The PRA does not require public agencies to create new records in order to comply with requests for documents. As per your request, the Department will initiate its retrieval process by asking staff to begin searching for responsive records. If the Department is able to locate existing records pertaining to your request, we will assemble these records. At such a time, you will be contacted to make arrangements for inspection or delivery of the records.

Documents maintained in electronic format will be transmitted electronically whenever possible. Documents maintained in hard copy format will be transmitted as paper copies. If you decide to have hard copy records delivered, the Department charges a photocopying fee of $.15 per page, in addition to shipping costs. The Department does not have a policy that allows it to waive or reduce these fees and costs. However, we will identify the total amount that must be paid before the responsive documents are mailed. Alternatively, responsive documents may be reviewed at the location where they are held in order to avoid shipping charges. When the documents are compiled and you are notified, you may inform the Department of whether you wish to have copies of the documents mailed to you or if you wish to inspect the documents in person.

If you have any questions regarding coordination of your request or would like to know the status of your request, please email PRACoordinator@wildlife.ca.gov and reference PRA no. 15-05-192.

Shannon Little

Staff Counsel, California Department of Fish and Wildlife

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From: George Torgun [mailto:george@baykeeper.org]
Sent: Friday, May 22, 2015 11:52 AM
To: Spurr, Crystal@Wildlife; Starr, Jim@Wildlife
Subject: CESA Consultation re Maintenance Dredging of Federal Navigation Channels in SF Bay

Hi Ms. Spurr and Mr. Starr,

I reviewed DFW's January 20, 2015 comments on the draft EIR for Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015-2024 (SCH #2013022056), and I have a couple of questions:

(1) Has the Regional Water Board consulted with DFW regarding impacts to longfin smelt or delta smelt from this dredging project, or sought a consistency determination for delta smelt?

(2) Has the Regional Water Board sought an Incidental Take Permit for this dredging project for impacts to longfin smelt or delta smelt?

If either of the above has occurred, I would be interested in obtaining any relevant documents or learning about the timing of the process.

Thanks for your assistance.

George

--

George Torgun

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