

COMMENT SET 6: BAY CONSERVATION AND DEVELOPMENT COMMISSION



Making San Francisco Bay Better

September 27, 2010

Mr. Christopher Huitt
California State Lands Commission
100 Howe Avenue, Suite 100
Sacramento, CA 95825

SUBJECT: San Francisco Bay and Delta Sand Mining Draft Environmental Impact Report; State Clearing House No. 2007072036.CSLC EIR No. 742

Dear Mr. Huitt:

Thank you for the opportunity to comment on the San Francisco Bay and Delta Sand Mining Draft Environmental Impact Report (EIR). As described in the document, the California State Lands Commission (CSLC) previously granted mineral extraction leases to enable the continuation of sand mining of construction-grade sand from certain delineated areas of Central San Francisco Bay (Central Bay) and Suisun Bay as well as the western Sacramento-San Joaquin River Delta (Delta) area. These leases were valid for a 10-year period with an option to apply for new leases for an additional 10 years. The initial 10-year period expired on June 30, 2008. The CSLC is allowing the continuation of sand mining, however, on a month-to-month basis pending the completion of the environmental review and permitting process.

The Draft EIR was prepared to examine the potential environmental effects of the proposed new leases and continuing sand mining for an additional 10-year period. The proposed project includes the CSLC's issuance of new ten-year leases for aquatic sand mining of up to 1,840,000 cubic yards (cy) annually at six parcels, some of which have two or three components, for a total of 3,643 acres in Central San Francisco Bay, Suisun Bay, and Suisun Channel.

The Draft EIR considered many project alternatives but only analyzed the four most viable ones. The first alternative is the no action alternative under which the CSLC would not issue new mining leases. The second alternative is the Long-term Management Strategy Management Plan conformance alternative that would require sand mining to comply with temporal and spatial restrictions on dredging contained in the *Long-term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region Management Plan 200 (LTMS)* environmental work windows. The third alternative is the clamshell mining, which would employ a clamshell dredge rather than hydraulic mining of sand from the floor of the Bay and Delta. The fourth alternative is the reduced project alternative that would reduce the proposed project volume by half, limiting mining to 1,020,000 cy annually.

The Commission's jurisdiction includes all tidal areas of the Bay up to the line of mean high tide (up to five feet above mean sea level or the upper edge of marsh vegetation in marshland), all areas formerly subject to tidal action that have been filled since September 17, 1965, and the shoreline band, which extends 100 feet inland from and parallel to the Bay shoreline. All of these parcels are within either the Commission's Bay jurisdiction or Suisun Marsh Protection Act jurisdiction. Therefore, BCDC permits are required for sand mining activities within each of the lease areas, including Middle Ground Shoal (Tidelands Lot 39).

Although the Commission itself has not reviewed San Francisco Bay and Delta Sand Mining Draft EIR, the staff comments discussed below are based on the Commission's law, the McAteer-Petris Act, the Commission's *San Francisco Bay Plan* (Bay Plan), the Suisun Marsh Preservation Act (Marsh Act), the Suisun Marsh Protection Plan (Marsh Protection Plan) and the Commission's federally-approved coastal management plan for the San Francisco Bay, pursuant to the amended federal Coastal Zone Management Act (CZMA).

General Comments

Area of Analysis. As discussed with the CSLC staff and the project consultants, the area of impact considered in the document, the hydrodynamic modeling and sediment transport analysis should include the San Francisco Bar and near shore San Francisco littoral cell. Patrick Barnard of U.S. Geological Survey has shown through both modeling and analysis of multibeam data that the net transport of sand from the Central Bay is outward towards the outer coast. This implies that some of the sand that is in the Central Bay may be feeding the nearshore coast of California, including Ocean Beach. Over the last five years, Ocean Beach has experienced serious coastal erosion that might be related to the reduction in sand transport out of the Bay due to sand mining within the Bay system. Therefore, an analysis of the connection between the outer ocean and the Central Bay should be examined to determine extent of potential impacts.

6-1

Characterization of Commission Laws and Policies. The Bay Plan and Marsh Protection Plan and their policies are characterized differently in each section of the document. While it is likely that this came about due to separate authors for each section, the Plans and policies should be accurately and consistently characterized throughout the entire document. The most complete and accurate policy descriptions are located in the Land Use and Recreation section of the document.

6-2

Executive Summary

The second paragraph of the Project Objectives, Purpose and Need section indicates that the Draft EIR examines the potential environmental impacts of the proposed project for a 10-year period. Although the leases issued by CSLC are valid for this length of time, the Draft EIR should consider a longer planning horizon, such as 20 years, so that the long-term environmental effects of sand mining could be better understood and re-evaluated every 10 years when CSLC re-issues leases. As stated in the Description of Proposed Project, the mining of sand within the Central Bay and Delta has occurred for more than seven decades. Therefore given this history, the Draft EIR should consider a planning horizon greater than 10 years. In fact, a Programmatic EIR might be more appropriate for a longer-term environmental review of sand mining in the Central and Suisun Bays as well as the Delta.

6-3

The LTMS Management Plan Conformance Alternative section on page ES-6 states that the LTMS Management Plan is a strategy and plan for ongoing maintenance dredging and some new dredging. More precisely, the LTMS Management Plan includes only maintenance dredging projects for navigation projects. New dredging projects are considered outside of the LTMS program and require their own California Environmental Quality Act (CEQA) evaluation. Once a new project is complete, the maintenance work may be included under the LTMS program if it complies with the program and project requirements. Further, the LTMS Management Plan does not cover sand mining as it was not evaluated in the Environmental Impact Statement/EIR process and is not navigational dredging. Both here and throughout the document, language regarding this alternative should be stated as "conformance with the LTMS Management Plan's environmental work windows," as it appears the alternative is only referring to that portion of the LTMS program.

6-4

On page ES-11, Section 4.1, it incorrectly states that conformance with the LTMS Management Plan would be protective of green sturgeon. The LTMS Management Plan and the environmental work windows were developed prior to the listing of the green sturgeon and therefore do not consider this species. A new biological opinion is expected out in late 2010, early 2011, which will include the green sturgeon. It is a benthic species that uses the Bay year round, so environmental work windows will not be developed for it.

6-5

1.0 Introduction. On Page 1-9, in Section 1.2.5 Definition of Baseline and Future Conditions, the Draft EIR establishes the baseline at the time the Notice of Preparation (NOP) was published on July 10, 2007. As the footnote on page 1-9 explains, under CEQA, the date that the NOP is published is the correct time to establish the baseline. It is also recommended that an environmental review document be completed within a year to a year and a half of this time to ensure that the baseline accurately reflects the existing environmental conditions. The Draft EIR was published in July 2010, three years after the NOP. The existing conditions have changed, and the baseline should be closer to the date that the Draft EIR was published. Commission staff note that in the last three years, annual sand mining volumes have decreased significantly and therefore, the existing conditions might have changed in the lease areas.

6-6

2.0 Project Description. The basic project purpose has changed since Commission staff's meetings with the CSLC. Our understanding was the basic project purpose was to mine sand for the construction industry and that the basic project purpose was subsequently changed to read: "to obtain renewal of all necessary permits and approvals necessary to continue mining sand at an economically viable level in the San Francisco Bay for the next ten years." Because of this change, importing sand from outside of the Bay was eliminated from the analysis. The rationale for not including this alternative included (1) not meeting the project purpose and (2) that importing sand would conflict with the state's greenhouse gas policies. Please explain the rationale for changing the project purpose. Please further explain which state climate change policies are applicable to this project. While we are unclear regarding the applicable policies, we suggest that an analysis comparing greenhouse gas production from importing large quantities of sand in single vessels to using multiple smaller vessels making multiple trips with the Bay.

6-7

In the description of the mining equipment on pages 2-11 through 2-15, it would be helpful to explain how the water is drawn into the Hanson draghead if it does not occur through an intake pipe. Also, please state the size of the grid on the draghead that is intended to exclude large objects.

6-8

On page 2-21, the Draft EIR states that information regarding the number of mining events was not available for 2007 so the 2002-2003 numbers were used. The Commission staff has this information on file and will provide it upon request. Please use the appropriate numbers in your analysis of mining year 2007.

6-9

3.0 Alternatives and Cumulative Impacts. A fourth alternative that should be evaluated would include a reduced volume of sand mined in conformance with the environmental work windows set forth in the LTMS Management Plan. This alternative would reduce the number of organisms entrained by reducing the volume and timing of mining, thereby reducing the overall risk to aquatic organisms.

6-10

In Section 3.2.2., Import of Sand Alternative, the document does not mention that large quantities of sand are already being imported by CEMEX and Hanson Aggregates, by ships that are already traversing the coast with other aggregates supplies. It is staff's understanding that vessels travel to Canada with aggregate products used in Canada, then return south with glacier sand which they offload in San Francisco Bay. This way, they take advantage of an

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otherwise empty ship heading south from Canada. Commission's staff understanding of the project purpose was to provide sand to the aggregate industry. Unless this has somehow changed from the original discussions, this alternative should be thoroughly examined.

↑ 6-11
cont.

In Section 3.3.2.1, on page 3-9 (line 22), the LTMS environmental work windows do not cover longfin smelt presently. Similarly, the chart provided on page 3-10 is out of date. An updated version can be provided upon request from Commission's staff. In addition, on page 3-12 (line 3.3.2.2), the statement regarding the LTMS program conformance would streamline permitting is incorrect. Sand mining is not considered in the LTMS program and, therefore, the permitting process would remain same. The applicants could however, use a JARPA application.

6-12

In Section 3.5.1 Cumulative Impacts Projects Study Area, the study area should have included the nearshore coast and San Francisco littoral cell. Unless this area is included, the analysis would not take into account the recent work by Patrick Barnard that has determined the sandbed from the Central Bay has net outward flow and potential impact associated with decreasing that sediment supply.

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Table 3-3 should state that the Oakland Fifty-foot deepening project has been completed and the installation of the TransBay Cable has been completed.

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4.1 Biological Resources. In the description of longfin smelt it should be noted that longfin smelt move into cooler deeper waters during the summer months, which would likely put them in further risk of entrainment from sand mining operations in deep water during the summer months. In the description of least tern and brown pelican, there should be a discussion of whether or not sand mining, particularly the turbidity plume, would impact the foraging abilities of these endangered species since they identify their prey from the air. This information should be further analyzed and included in the discussion of potential impacts.

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The Critical Habitat discussion on page 4.1-24 should be updated to include all of San Francisco Bay as critical habitat for the green sturgeon.

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On page 4.1-29, the discussion on invasive species should include a discussion of the potential for sand mining barges to transport invasive clams or other non-native species to different parts of the Bay, particularly the offloading sites.

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In the Magnuson-Stevens Fishery Management and Conservation Act section on page 4.1-31, the Draft EIR describes Essential Fish Habitat (EFH). This discussion should include the Draft EFH consultation that was issued on July 13, 2010. The EFH consultation recommendations should also be incorporated into the mitigation measures, especially as they relate to longfin smelt.

6-18

Page 4.1-34, line 28 incorrectly names the California Coastal Commission rather than the Commission as the authority that regulates wetlands in the Bay. Similarly, on page 4.1-36, line 3 and 4 state that habitats discussed in the Suisun Marsh Preservation Act do not occur within the sand mining lease areas. The Marsh Act and the Marsh Protection Plan include protection of waterways within the Marsh. Sand mining within the Suisun Channel is regulated, in some cases, only by the Marsh Act and Protection Plan. In the case of Middle Ground Shoal, sand mining is regulated by the Bay Plan and the Marsh Act and Protection Plan. This information should be included in all sections to which it relates.

6-19

Section 4.1.4 does not analyze the effects to least tern, an endangered species that is a visual forager in San Francisco Bay, that is generally in the Montezuma Wetlands project area in Collinsville. Any potential impacts to this species should also be considered and discussed.

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In discussing the impacts for BIO-3, the document states in line 35 and 36 that impacts associated with entrainment of biota from the soft substrate is considered a short term impact. In other parts of the document it states that the benthic community would take between one and ten years to reestablish (page 4.1-45 lines 31 through 35) and that sand mining appears to take place in the same areas over time. Therefore, this impact appears to be a permanent impact because the biota would not have time to recover between mining events that are repetitious over ten years.

6-21

In the discussion regarding Dungeness crabs (page 4.1-51, lines 24 through 31), the terms juvenile and adult might have been interchanged, making the paragraph a bit unclear. Please review and revise as appropriate.

6-22

On page 4.1-52, lines 12 through -16, please clarify which permitting requirements would reduce impacts to these species. From the Commission's staff's understanding the permit conditions required by NOAA Fisheries and the U.S. Fish and Wildlife Service (USFWS) are specific to listed species and, therefore, would not necessarily apply to species with different life strategies and habitat usage.

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Page 4.1-53, line 33-35, states that the applicants would need to apply for and receive a California Department of Fish and Game (DFG) incidental take permit within 12 months of a CSLC lease being issued. However, the Commission's policies prevent it from acting on a project that "takes" a listed species without receiving an incidental take permit from the appropriate agency. Therefore, the Commission would not be able to issue sand mining permits prior to the applicants receiving an incidental take permit.

6-24

Page 4.1-61, lines 19 through 29 should state that the southern distinct population of green sturgeon was also not considered by the LTMS program and therefore impacts to this species is not covered. As a result, this species was not evaluated, and this program only analyzed maintenance dredging projects. This issue needs to be clarified throughout this section.

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The Biological Resources section should also include a discussion of the Mitigation policies of the Bay Plan.

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4.2 Mineral Resources. The Mineral Resources section evaluates the potential loss of available sand and construction aggregate within the proposed sand mining areas. The Draft EIR states that there is no significant impact from sand mining to the mineral resources in the project area.

However, Impact MIN-3 describes that sand mining could deplete the amount of sand available for future mining. Furthermore, there may be additional long-term negative results, including removal of sandy bay habitat and increase of shoreline erosion in nearby areas. Further discussion on the loss and reduction of sandy habitat should be discussed. The Mineral Resources Section should include a discussion on how the depletion of the sand resource might increase the erosion of coastal areas adjacent to the San Francisco Bay, as Dr. Patrick Barnard's (USGS) studies have suggested. This document, furthermore, should include analysis of the comparative multibeam studies performed in the Central Bay in 1997 and 2008.

6-27

The Subtidal Areas Policy 2 of the Bay Plan states that subtidal areas that are scarce in the Bay or have an abundance and diversity of fish, other aquatic organisms and wildlife, including sandy deepwater or underwater pinnacles should be conserved. Policy 2 also states that filling, changes in use and dredging projects in such areas should be allowed only if: (a) there is no feasible alternative; and (b) the project provides substantial public benefits. Page 3-4 and 3-7 discuss the alternatives to local sand mining, including local active quarries and importation of sand from British Columbia and Mexico. Based on the Draft EIR, it appears that these alternatives are not feasible because of a "conflict with state climate change policy." This alludes

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to the fact that long distances will be traveled that will contribute unnecessary green house gases to the environment. The Draft EIR should further explain and estimate, with numerical values, the emissions associated with the alternatives. It should also clarify that this importation of sand from British Columbia is already taking place and discuss how state climate policies might impact this current importation of sand.

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6-28
cont.

On page 4.2-10, lines 3 through 9, the document discusses whether or not continued sand mining would result in an impact to mineral resources from depletion. There is evidence that this resource is already being depleted, and further mining of this area would exacerbate the depletion of the resource. Both Dr. Bruce Jaffee and Dr. Barnard have written studies that suggest that the Central Bay is in an erosional stage that is being exacerbated by sand mining.

6-29

4.3 Hydrology and Water Quality. The Hydrology and Water Quality section of the Draft EIR explains the known sediment dynamics, current bathymetry, and water and sediment quality within the project area. The Sediment Dynamics and Bathymetry sections on Pages 4.3-6 through 4.3-9 should discuss the potential connectivity to the outer ocean. In addition, reference should be made to Dr. Barnard's, of the USGS, research that includes detailed bathymetry of the Central San Francisco Bay that describes the Bay bottom in depth. Furthermore, it should be included that the morphology of Central Bay has been extensively modified by excavation and borrow pits.

The modeling efforts referenced in the Hydrology and Water Quality Section and explained in Appendix G indicate that the Central Bay and Middle Ground deep channel mining sites are not experiencing replenishment of sediment once it is removed, naturally or by sand mining. The modeling described in Appendix G also indicated that net bottom erosion due to sand mining has largely been contained within the lease and immediately adjacent areas and that sand mining in Central Bay is not causing measurable sediment depletion in areas outside the mining areas, such as the San Francisco Bar, Ocean Beach or other areas. These conclusions are based on data summarized in Figures 4-37, 4-38 and 4-39 that show the sand bed change differences between the two proposed sand mining scenarios in the Central Bay and Suisun Bay. Based on these figures, most of the sand bed changes are focused in the vicinity of the sand lease areas; however, the figures do not analyze other areas, such as Ocean Beach or the San Francisco Bar that may be affected by the proposed project. The Suisun Bay area does not show any area west or east of the sand lease areas that may be affected. In addition, Figures 4-26 and 4-27 show that the sediment in the region is in a state of flux, but the analysis focuses again only in the immediate sand mining lease areas. The document should also provide an evaluation of an increased tidal prism in the Bay as a result of continued sand mining and the cumulative impacts of this increase with consideration of sea level rise.

6-30

Appendix G also concludes that a reduced level of sediment is being transported from upstream into these areas. However on Page G-20, the report states that approximately 13.5 million cubic yards of sand was removed by sand mining lease areas. Figure 4-2 and Table 4-1 show the depth changes between 1997 and 2008 to be 11.6 million cubic yards, slightly less than the actual volume removed. The difference might be the result of error or it might suggest that some sediment is making its way back into the system from upstream.

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The Draft EIR does not include a discussion of potential long-term effects from sand mining to the region, because of its short planning horizon. It is important to recognize that the sediment moving through the system will likely be deposited in deeper areas after mining rather than moving through the system. This could cause less sediment to move to other areas within and outside of San Francisco Bay.

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Mr. Christopher Huitt
California State Lands Commission
September 27, 2010
Page 7

On page 4.3-23, the discussion of the CALFED program needs to be updated.

6-33

Please clarify whether the numerical modeling done for this project included bedload transport, as that is the most relevant mode of transportation for sand-sized particles.

6-34

On page 4.3-36 and -37, the discussion of the Cumulative Impacts needs to be updated per the comments above on projects completed such as the Port of Oakland deepening project.

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4.4 Hazards and Hazardous Materials. Section 4.4 Hazards and Hazardous Materials should include a discussion of the Navigational Safety and Oil Spill Prevention Plan of the Bay Plan.

6-36

4.7 Land Use and Recreation. In the San Francisco Bay Conservation and Development Commission section of 4.7 Land Use and Recreation, the Water Related Industry and Other Uses of the Bay and Shoreline policies of the Bay Plan should be included in this section. These policies should be analyzed in the impact assessments section and especially as they relate to potential conflicts and/or inconsistencies.

6-37

7.0 Mitigation Monitoring Program. Table 7-1 needs to be updated to clarify that the Commission would be unable to issue a permit for sand mining prior to the DFG issuing an incidental take permit for the project. Similarly, if NOAA or USFWS determined that sand mining, as proposed, would "take" federally listed species beyond what was previously authorized, an incidental take permit from the federal agencies would be needed prior to issuance of a BCDC permit.

6-38

Thank you for providing staff with the opportunity to review the San Francisco Bay and Delta Sand Mining Draft EIR. We recognized the importance of this project and appreciate the efforts of the State Lands Commission and Environmental Sciences Associates, Coast Harbor Engineering and Marine Science Associates in its preparation. Please feel free to contact me at (415) 352-3623 or email me at brendag@bcdc.ca.gov if you have any questions regarding this letter or the Commission's policies and permitting process.

Sincerely,



BRENDA GOEDEN
Dredging Program Manager

BG/rca

COMMENT SET 7: DEPARTMENT OF FISH AND GAME

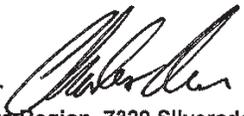
State of California
Department of Fish and Game



Memorandum

Date: September 27, 2010

To: Mr. Christopher Huitt
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

From: Charles Armor, Regional Manager 
Department of Fish and Game – Bay Delta Region, 7329 Silverado Trail, Napa, California 94558

Subject: San Francisco Bay and Delta Sand Mining, Draft Environmental Impact Report,
SCH #2007072036

The Department of Fish and Game (Department) has reviewed the San Francisco Bay and Delta Sand Mining draft Environmental Impact Report (EIR). The Department appreciates the opportunity to comment on the draft EIR and is providing the following comments to assist the California State Lands Commission (Commission) with appropriate measures to offset adverse impacts to sensitive resources. The draft EIR examines the potential environmental effects of proposed new leases and continuation of sand mining for an additional 10-year period in the San Francisco Bay and Delta. Sand mining occurs within the Central San Francisco Bay east of the Golden Gate Bridge, Middle Ground Shoal in Suisun Bay, and areas north of the federal navigation channels of Suisun Bay and western Delta. Sand mining does not occur uniformly within the region, but rather is clustered in specific areas, typically characterized by high river or tidal velocities and sand deposits that contain a low percentage of fine material (silts, clay, and mud). Mining events typically last approximately 3.0 to 4.5 hours, during which time approximately 1,500 to 2,500 cubic yards of sand are excavated. During mining, water is entrained into the suction head, creating a water and sand slurry that mobilizes the sand and allows it to be pumped into the barge. Sand mining within the Central Bay typically occurs at water depths ranging from 30 to 90 feet. Mining within the navigation channels of Middle Ground Shoal and the Suisun Bay/Delta parcel typically occurs in waters that are 15 to 45 feet deep. Approximately 19.2 million cubic meters of water is pumped during sand mining operations at the Central Bay parcels, 1.6 million cubic meters is pumped at Middle Ground Shoal, and 0.9 million cubic meters is pumped at the Suisun Bay/Delta parcel annually.

Since the issuance of the previous lease, the Delta has experienced significant declines in the abundance of Sacramento and San Joaquin Delta fishes including Central Valley steelhead (*Oncorhynchus mykiss*), Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley spring-run Chinook salmon, Delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys*), green sturgeon (*Acipenser medirostris*), and Sacramento splittail (*Pogonichthys macrolepidotus*). As a Trustee Agency for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species. In this capacity, the Department administers the California Endangered Species Act, the Native Plant

Protection Act, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife public trust resources. Pursuant to our jurisdiction, the Department submits the following comments and recommendations regarding the project.

1. The draft EIR states that the Project operations will likely “take” listed species including Delta smelt, longfin smelt, winter-run Chinook salmon and Central Valley spring-run Chinook salmon. As such, the Applicants will need an Incidental Take Permit (ITP) from the Department for all state-listed species to address impacts of the “taking” pursuant to Fish and Game Code sections 2080.1 or 2081(b), and California Code of Regulations, Title 14 Section 783 et seq. During the development of the ITP, the Department will assure that minimization and mitigation measures are consistent with the Department’s issuance criteria as required under Fish and Game Code Section 2081(b) (1-4). Specifically, the ITP will include measures that fulfill the Department’s requirement that all impacts of the taking of Covered Species be minimized and fully mitigated and to ensure adequate funding to implement those measures and for monitoring compliance with, and effectiveness of, those measures. The Department recommends that the Applicant submit an ITP application to the Department for review. The ITP application should include a complete project description and the updated analysis provided in the EIR in addition to other required ITP application elements. The project description should be sufficient to evaluate the effects of the project on each Covered Species and will be used to evaluate and develop species-specific minimization and mitigation measures. During the ITP development process, the Department also recommends that the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) staff be included in discussions to assure that project mitigation measures are consistent with federal requirements.

7-1

2. The spatial extent of the overflow plume from a sand mining event is typically a few hundred feet wide by several hundred feet long. Suspended sediments in the water column have known to be a stress factor for spawning Pacific herring (*Clupea pallasii*) populations. Sediment loads cause larval mortality, smothering of eggs, and prevent oxygen exchange in the early development of herring eggs. Suspended sediments, if present in the water column as eggs descend, enhance egg aggregation which could have negative implications for natural spawns. Females may swim away from substrata during spawning and release eggs into the water column (Stacey and Hourston, 1982; Aneer et al., 1983; Hay, 1985). When this occurs, eggs settle and attach to substrata or onto other eggs in a less organized manner, leading to aggregations of multiple layers or clusters. As egg layers increase in thickness, hypoxia, microbial growth, and retardation of embryonic development increase (Stacey and Hourston, 1982; Hay, 1985). Sediment-induced aggregation of eggs in the water column would exacerbate overall aggregation and clustering. The Department recommends that sand mining should be avoided in the Central Bay during the herring spawning season (December 1 through March 1).

7-2

3. Please be advised that for any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, the Department may require an Lake or Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. As such, based on Figure 1-1,

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proposed dredging operations in the eastern portion of the Suisun Bay/Delta Lease Area are subject to Section 1600 et seq. of the Fish and Game Code and would require an LSAA.

↑ 7-3
cont.

- 4. Appendix F, Benthic survey: the Department questions the methodology described in the report for sub-sampling and collection of infauna less than 2.0 mm. The standard procedure for sampling benthic infauna is to wash the entire sediment sample through a 1.0 or 0.5 mm screen to capture the organisms. The report describes screening 1/2 the grab sample through a 2.0 mm screen, with a sub-sample screened down to 0.5 mm. However, the report does not explain what measurable quantity of sediment was used for the sub-samples. Therefore, the Department can not identify how large a sample was screened for benthic infauna. If the sub-samples that were screened to 0.5-1.0 mm were insignificant in size, then the survey needs to be repeated with correct methodology.

7-4

The Department appreciates the opportunity to provide comments on the draft EIR. As always, Department personnel are available to discuss our concerns, comments, and recommendations in greater detail. To arrange for discussion, please contact Mr. George Isaac, Environmental Scientist, at (831) 649-2813; or Ms. Vicki Frey, Senior Environmental Scientist, at (707) 445-7830 with our Marine Region. For activities east of the Carquinez Bridge, please contact Bay Delta Region staff members Ms. Corinne Gray, Staff Environmental Scientist, at (707) 944-5526; or Mr. Scott Wilson, Environmental Program Manager, at (707) 944-5584.

cc: State Clearinghouse

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Mr. David Woodbury
National Marine Fisheries Service
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Ms. Brenda Goeden
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COMMENT SET 8: CITIZENS COMMITTEE TO COMPLETE THE REFUGE



CITIZENS COMMITTEE TO COMPLETE THE REFUGE

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September 27, 2010

California State Lands Commission
100 Howe Avenue, Suite 100-South
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Attn: Christopher Huitt
Phone: (916) 574-1938 or email: huittc@slc.ca.gov

RE: San Francisco Bay and Delta Sand Mining Draft EIR; CSLC EIR #742 and State Clearinghouse Number 2007072036

Dear Mr. Huitt:

The Citizens Committee to Complete the Refuge appreciates the opportunity to comment on the above referenced DEIR. Unfortunately, those comments must be entirely negative. Rarely have we seen a DEIR so manipulate the EIR process so as to ignore obvious and logical impacts in order to make findings of no significant impacts.

One of the most obvious cases of this is found on page 4.2-10 where the DEIR states, under section "Impact MIN-3: Depletion of the sand resource (pg. 4.2-9), "*Mining of a mineral resource can generally be expected to deplete the resource. The significance criteria used for this section state that loss of availability of a known mineral resource could cause a significant impact. This criterion is interpreted to mean that depletion of the resource through mining does not constitute a significant impact; an impact could only occur where a project prevented or inhibited access to a known mineral resource. **Therefore, even if the Project depletes the mineral resource over its 10-year lifespan, this is not considered a significant impact.***"(emphasis ours)

8-1

Well, this leaves one speechless (almost). If this is the criteria of significance one wonders why do an EIR at all. Under this rubric one can deplete the Bay's entire sand resource and find no impact. The only possible project impact that could be identified under this criteria of significance is to not sand-mine. This is perhaps unique in my experience in terms of crafting an EIR so as to obviate the possibility of identifying any potential impacts.

This approach is even more disappointing since the USGS specifically asked you to address the issue of sand depletion along the Golden Gate coastline, for example the attrition of ocean beach (page ES-17).

8-2

You respond with the study by citing “[t]he *Coast and Harbor Engineering (CHE) study conducted for this EIR (Appendix G) demonstrates conclusively that most of the areas being mined, including the Central Bay lease areas, are not being replenished. However, hydrodynamic modeling conducted by CHE demonstrates that sand mining is not expected to affect sediment transport and deposition within the Bay and ocean, except in areas within and immediately outside of the mining leases* (page ES-17) and also with citations in Sections 4-2 and 4-3. But these are not convincing. Does no sand go out of the Golden Gate anymore? The estimated annual sand budget deficit estimated at the Golden Gate is about the same magnitude as the annual mining rate: 2 million cubic yards per year. Is there really no connection whatsoever? The sand bar outside the Golden Gate has been decreasing as sand mining has taken place. Is there really no connection? The burden of proof should be on the sand mining industry to show that that the loss of coastal sand has nothing to do with Bay sand mining. And if there is a connection with sand mining resulting in decreased sand for beach replenishment that should be identified as an impact.

8-2
cont.

There are many other examples of flawed reasoning and analysis in this document. For example, the DEIR finds that noise from hydraulic dredging of sand may impact fish and result in the alteration of their path or even a loss of habitat as fish avoid the noisy location. The DEIR addresses this by stating, (page 4-44), *The noise levels generated by sand mining at the hydraulic suction dredge’s location are within the sound range that can result in behavioral responses by fish and marine mammals but are below levels that are likely to cause physical damage to sensory receptors or other physiological effects (Hanson Environmental 2004). Behavioral responses can include avoidance behavior, such as change in swimming direction and speed. Such impacts are largely localized. Based on these findings, the temporary increase in noise above ambient levels due to sand mining activities is considered less than significant.*

Thus the DEIR does not really address why these impacts are not significant, unless it concludes that as long as the effects are not lethal or physically damaging there is no significant impact. But this ignores the criteria of significance identified by the EIR that includes:

- *A net loss occurs in the functional habitat value of a special biological significance;*
- *There is a potential for the movement or migration of fish to be impeded;* (page 4.1-40)

8-3

Perhaps it is because it finds these impacts to be local effects that it finds no significant impact. But if all local impacts are insignificant then no impacts to habitat will ever be significant since all habitat is local. And perhaps it is because the noise levels are intermittent. But intermittent or not, if a fish is forced to change its movement or not feed for a moment because of the noise at that moment—that is an impact and sand-mining takes place often enough for the likelihood of fish to be disturbed should be high. In any case, the DEIR should have provided some analysis, not just a brief dismissal of the potential impacts.

For all these reasons, we urge you to withdraw this DEIR and revise it with peer-reviewed studies and with specific input and assistance from the USGS in order to gain a true picture of the potential impacts to the Bay and coast from a continued sand-mining operation. At the very least, we urge you to adopt the Reduced Project Alternative.

8-4

Sincerely yours,

Arthur Feinstein
Conservation Coordinator
415-680-0643

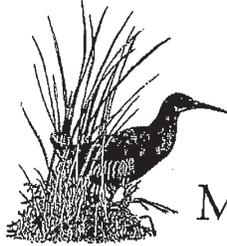
COMMENT SET 9: MARIN AUDUBON SOCIETY

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TO: 19165741885

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P.O. Box 599 | MILL VALLEY, CA 94942-0599 | MARINAUDUBON.ORG

Post-It® Fax Note	7671	Date	9/27	# of pages	4
To	Sarah Mongano	From	Marin Audubon Society		
Co./Dept	CSLC	Phone #	415		
Phone #		Fax #	924-6037		
Fax #					

September 27, 2010

VIA FACSIMILE AND US MAIL
 Sarah Mongano, Environmental Scientist
 State Lands Commission
 100 Howe Avenue, Suite 100-South
 Sacramento, CA 95825-8202

RE: DRAFT ENVIRONMENTAL IMPACT REPORT ON SAND MINING

Dear Ms. Mongano,

The Marin Audubon Society appreciates the opportunity to submit comments on the DEIR for Sand Mining. We have a long-time interest in this activity and concern about its impact on the resources of the San Francisco Estuary. We are particularly interested in impacts on the Central Bay disposal sites because of their proximity to Marin County. The sand mining companies request continuation of their existing permits with a 60% increase in the quantity of sand mined in Central Bay. Inadequate information is presented to support issuing approval of such a request. Specifically, data documenting that significant environmental impacts of the proposed project would not occur, is not presented. Many of the analyses are simplistic and self serving, and the nature of the impacts minimized.

9-1

According to the DEIR, 11.6 million cubic yards of material have been mined from Central Bay over the last 10 years, or as measured in the barges, the total was actually 13.5 million. Since commercial sand mining has been going on for 70 years, this means that approximately 70 million cubic yards has been removed from the bay.

9-2

It appears that agencies have done a less than responsible job of oversight in protecting the natural resources of the Estuary. Sand mining has been allowed to continue with basically no environmental information using Negative Declarations, and information collected has not been or retained and/or used in any way to evaluate impacts. Now we are in the very compromised position of declaring the 2007 condition as baseline, when clearly 2007 does not represent anything even close to natural conditions which is what should be considered the baseline condition. This is an artificial scenario created by repeated mining that has not been adequately monitored and evaluated, and legal analysis that is based on typical development projects. It is clearly not in the best interest of the Bay and the public.

9-3

Our comments and questions on the DEIR are:

1. The definition of the baseline conditions may be supportable according to one legal opinion,

however, it is clearly not in the interest of the Bay. To define and evaluate conditions as baseline after 70 years of commercial sand mining, accepts an already heavily impacted resource as acceptable. Has there been a thorough legal search conducted to determine whether there are any other legal opinions that would allow analysis that is more representative of the actual natural conditions of the Bay? If not, we suggest that the CSLC seek a court review of this interpretation of CEQA.

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9-3
cont.

2. The project objectives are defined as: "To obtain renewal of all necessary permits and approvals necessary to continue mining sand at an economically viable level in San Francisco Bay for the next ten years."(p. ES-2) The objective should define the specific quantity requested. As presented, the applicants could change the quantity of sand mined on the basis of market conditions.

9-4

3. Technical Report on Resource Evaluation and Impact Analysis states (p. 10) that "only approximately 5% of the material in the lease areas that was mined has been replaced by natural processes." 95% of the material has not been replaced, that there has been a major loss of material from the Bay and large pits or holes remain for some period. The impacts of these holes and how they are mitigated are not adequately addressed. The characteristics of the holes, depths, and widths, should be presented. How long do the holes remain? If these answers are not known, a monitoring program that includes these questions should be required for any further permit issued.

9-5

4. A conclusion is presented: (Technical Report Resource Evaluation and Impact, p. 10) that "the vast majority of the mined material has been accounted for immediately adjacent to the lease areas, it appears sand mining in Central Bay is not likely to cause measurable sand depletion outside the mining areas...." misses the important concern about the loss of sand to the ecosystem. It is impossible for there to be sand deposits needed to replenish coastal and bay resources, under the current mining regime. The sand may be a resource for the mining industry, but it is an equally important resources for the estuary and coastal environmental and its biological resources.

9-6

5. The EIR should address sand as a resource for the Bay and coastal ecosystem, not just as a mineral resource to be mined. Include a discussion of the values and services sand provides for the Bay and coast. This discussion should address sand in-bay and coastal sand habitats, erosion and recreational uses and other functions sand may provide within coastal ecosystems.

9-7

6. The EIR needs to provide a more comprehensive analysis of the impacts of sand mining over a much broader scope. How broad an area was studied to make the claim that "no morphological impacts are likely outside the immediate vicinity of the sand mining areas"? The removal of such massive quantities logically would have a downstream impact by robbing beaches and other resources of sand. The EIR should address coastal and other downstream resources that depend on sand replenishment and that are not getting it. What are the areas that were studied? It is the loss of sand that must be studied. What impacts is mining having and will have on shoals, beach replenishment and other natural features that depend on replenishment by native material? Isn't there a problem with the sediment budget in the bay? The question to be asked is what downstream resources are being starved; deprived of sand resources? What shoreline erosion is taking place because of lack of sand material?

9-7
↓

All areas of the Bay where it would be expected that sand would be carried by the currents and deposited under no-mining conditions, should be studied. This area would include the coastline outside the Golden Gate Bridge, north at least to Bolinas Lagoon and south to Devil's slide, in-bay areas such as Chrissy Field and the North and South Bay where, under no-mining conditions.

9-7
cont.

Unless proven otherwise the loss of sand to the ecosystem must be considered a significant impact.

7. Many impacts are dismissed as being localized 4.3-27. The DEIR is limited and inaccurate in its conclusion that the impacts of mining are localized. Simply because impacts affect one area of the Bay more than some others does not mean that they are not significant. Repeated impacts on water quality and biological resources due to increased levels of turbidity and modification of the substrate should be considered significant, even if temporary. One could excuse almost anything using these criteria. Under the assessment scenario used, there would have to be a catastrophic event for impacts to be significant. The localized impacts should be considered to be significant.

9-8

8. The analyses of biological impacts is simplistic and minimizes impacts. Species losses are reduced to specific numbers and minimized as being a very minimal percentage of the bay population. Only entrainment impacts of mining procedures on biological resources is discussed. Analysis concentrates on entrainment. What are the impacts of gigantic holes on bottom dwelling creatures particularly Dungeness crab? What happens to these bottom dwelling species when moving across the bay floor, they encounter, or find themselves in, one of the gigantic holes carved out by the mining? Do they continue unaffected on their migratory routes? Can they get out easily, move through, find covered by sand that may be trapped?

9-9

9. The discussion of Longfin Smelt impacts should consider timing restrictions for dredging, or avoidance of a particularly sensitive location, to protect this endangered species. Is this species more likely to be in a particular mining area at a particular time of year?

9-10

10. Discuss the sustainability of sand mining and of ecosystem resources, under the currently proposed sand mining regime? How much longer could it be expected, under the proposed scenario, that coastal and bay resources that depend on sand replenishment could be sustained?

9-11

11. We agree that the Reduced Project Alternative should be the Preferred Alternative. This alternative would reduce the permitted annual mining volumes by half or 225,000 cubic yards less than that was mined in 2007. While this alternative would reduce mining revenues, it would reduce the quantity of material removed from the Bay and, therefore have significant benefits for resources, both by leaving material to benefit in-bay and coastal resources. We note that economics is not an issue that is addressed in EIRs. It is the adverse impact or benefit to the environmental, not the applicants, that is of interest. This alternative would also allow time for an adequate monitoring program to be prepared and carried out.

9-12

12. The applicants should be required to demonstrate that sand mining does not adversely impact the broad range of bay resources. Any permit issued should be conditioned to require specific studies on at least the following:

9-13

- the length of time to fill huge holes, more adequate assessment of coastal erosion, biological impacts by independent coastal experts
- broad area of the bay including the coast at least to Bolinas Lagoon and Devils Slide, where bay sediments have been detected, the south and north Bays, to better define impacts of the lack of sediment deposition.
- biological surveys to determine not only impacts at the time of mining and shortly thereafter, but subsequent impacts as a result of the huge pits left by the mining of the project, should be undertaken and analyses by independent consultants.

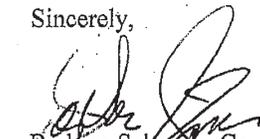
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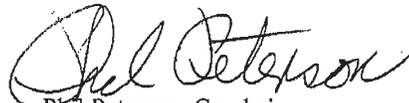
We suggest that consultants be funded by the applicants but be hired by CSTC with oversight by BCDC, and be subject to peer review.

9-14

Thank you for considering our comments, and for extending the comment deadline so that we were able to express our concerns.

Sincerely,


Barbara Salzman, Co-chair
Conservation Committee


Phil Peterson, Co-chair
Conservation Committee