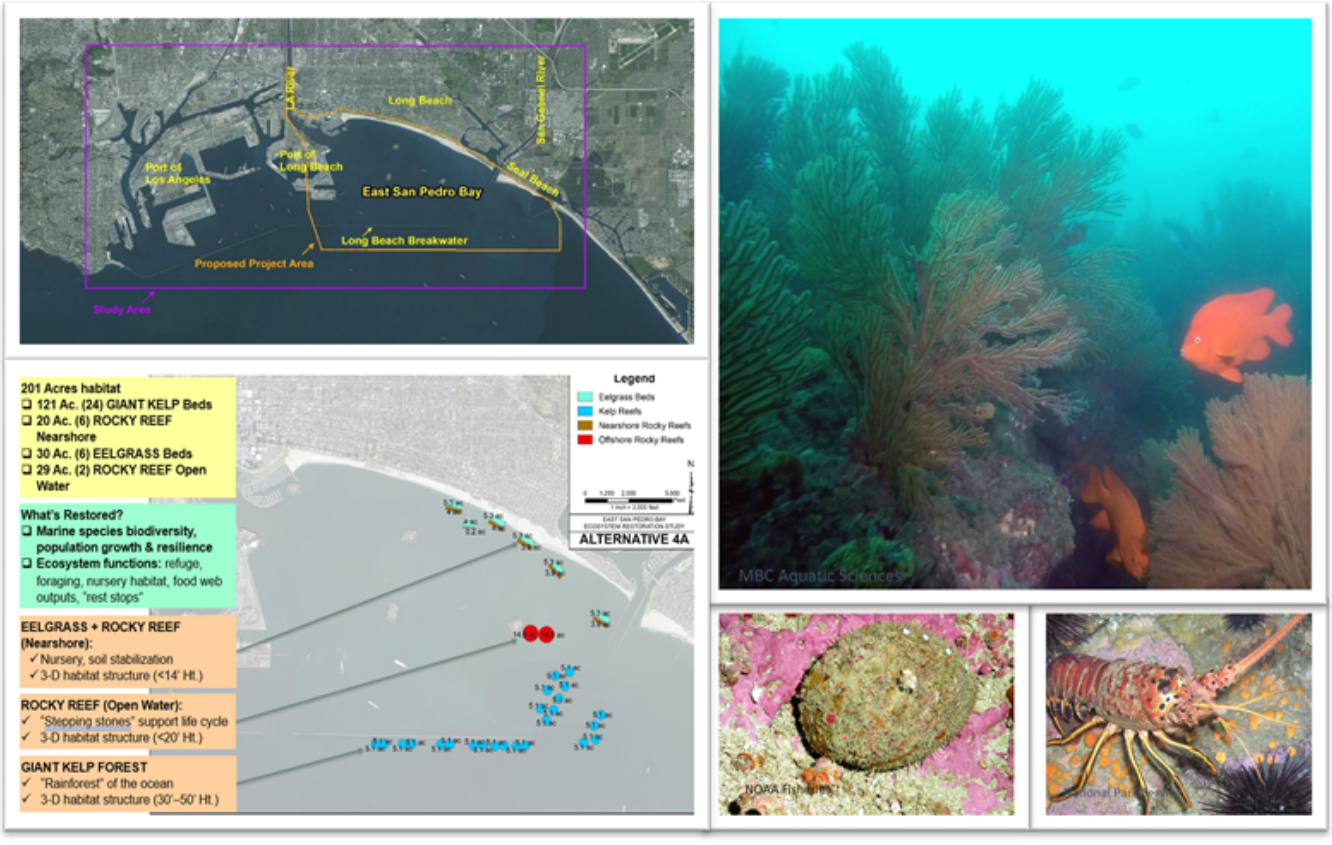
FINAL INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL IMPACT STATEMENT / ENVIRONMENTAL IMPACT REPORT (EIS/EIR)

APPENDIX N: PUBLIC/AGENCY COMMENTS, JOINT RESPONSES TO COMMENTS, AND LETTER OF SUPPORT

EAST SAN PEDRO BAY
ECOSYSTEM RESTORATION STUDY
Long Beach, California

January 2022



US Army Corps of Engineers ®

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SECTION 1

PUBLIC/AGENCY COMMENTS

Copies of the letters and emails received during the public comment period from November 25, 2019 through January 27, 2020 follow. Also included are the court reporter transcripts of the two public meetings held December 9, 2019, along with the public comment cards. A subsequent recreational boater stakeholder meeting was held in January 2021. Comments received before, during and immediately following the meeting are also included.

Each letter and email have been assigned an identification number. Each individual comment within that letter or email is also given an identifying number. The two-part number (12-1, 12-2, 12-3, etc.) has a corresponding joint agency response in Section 2 of this appendix. Individuals can find their original correspondence in Section 1, then locate the joint responses to their comments in Section 2.

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STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

Rec'd
2-4-20

January 28, 2020

Naeem Siddiqui
U.S. Army Corps of Engineers
915 Wilshire Blvd.
Los Angeles, CA 90017

Subject: East San Pedro Bay Ecosystem Restoration Feasibility Study
SCH#: 2019129006

Dear Naeem Siddiqui:

The State Clearinghouse submitted the above named EIR to selected state agencies for review. The review period closed on 1/27/2020, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act, please visit: https://ceqanet.opr.ca.gov/2019129006/2 for full details about your project.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

DEPARTMENT OF TRANSPORTATION
DISTRICT 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0475
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Rec'd
11/30/20

Making Conservation a California Way of Life.

January 23, 2020

Naeem Siddiqui
U.S. Army Corps of Engineers
915 Wilshire Boulevard
Los Angeles, CA 90017

RE: East San Pedro Bay Ecosystem Restoration Feasibility Study – Draft Environmental Impact Report (DEIR) / Draft Environmental Impact Statement (DEIS)
SCH # 2019129006
GTS # 07-LA-2019-02942
Vic. LA-710/PM: 5.368

Dear Naeem Siddiqui:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced DEIR/DEIS. The proposed project involves restoring and improving the aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the Southern California Bight within the East San Pedro Bay. The U.S. Army Corps of Engineers (Los Angeles) is considered the Lead Agency under the California Environmental Quality Act (CEQA).

The proposed project area is located adjacent to sections of the Interstate 710 (I-710) and State Route 1 (SR-1). Also, the project includes numerous alternatives that each might entail transporting quarry stone rock from 3M Quarry in Corona, CA, to the Pier T staging area within the Port of Long Beach (if quarry rock from Catalina Island is not used). If quarry stone from 3M Quarry is used, trucks might use state facilities such as I-710 to transport the stone.

To mitigate the potential impacts of truck trips on state facilities, Caltrans supports the implementation of the project's Environmental Commitment TT-2: "If the inland 3M Quarry in Corona is used, truck traffic would be scheduled during off-peak travel hours to the extent practicable in order to reduce potential traffic impacts from transporting quarry stone over public roadways." We also recommend that individual truck trips from 3M Corona be staggered, and that trucks are assigned to multiple routes instead of one, in order to minimize the cumulative impact of truck travel on state facilities. In addition, Caltrans recommends that vehicles hauling the stone are covered, because spillover sediment can adversely impact state facilitates. 2-1 2-2 2-3

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. Please see the following link for more information: https://dot.ca.gov/programs/traffic-operations/transportation-permits. In addition, if construction traffic is expected to cause delays on State facilities, please submit a construction traffic management plan detailing these delays for Caltrans' review. This plan should include the expected route(s) that trucks will use to travel from 3M Quarry to the project site, if quarry rock from Catalina Island is not used. 2-4 2-5

The following information is included for your consideration.

Please make every attempt to reduce the VMT associated with this project, and in particular the potential VMT generated from construction trips. For TDM options that can reduce VMT, please refer to: 2-6

- The 2010 *Quantifying Greenhouse Gas Mitigation Measures* report by the California Air Pollution Control Officers Association (CAPCOA), available at http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, or
- *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8) by the Federal Highway Administration (FHWA), available at https://ops.fhwa.dot.gov/publications/fhwahop12035/index.htm

Senate Bill 743 (2013) mandates that VMT be used as the primary metric in identifying transportation impacts of all future development projects under CEQA, starting July 1, 2020. For information on determining transportation impacts in terms of VMT on the State Highway System, see the Technical Advisory on Evaluating Transportation Impacts in CEQA by the California Governor's Office of Planning and Research, dated December 2018: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

If you have any questions about these comments, please contact Emily Gibson, the project coordinator, at Emily.Gibson@dot.ca.gov, and refer to GTS# 07-LA-2019-02942.

Sincerely,

MIYA EDMONSON
IGR/CEQA Branch Chief
cc: Scott Morgan, State Clearinghouse

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
1933 Cliff Drive, Suite 9
Santa Barbara, CA 93109
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

3 January 27, 2019

Mr. Naeem A. Siddiqui
U.S. Army Corps of Engineers,
Los Angeles District, CESPL-PDR-N,
915 Wilshire Boulevard, Suite 930,
Los Angeles, California 90017-3489.
ESPB@usace.army.mil

Subject: East San Pedro Bay Ecosystem Restoration Feasibility Study Draft Integrated Feasibility Report (IFR) and Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR)

Dear Mr. Siddiqui:

The California Department of Fish and Wildlife (Department) has reviewed the East San Pedro Bay Ecosystem Restoration Feasibility Study Draft Integrated Feasibility Report (IFR) which includes a Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) (Project). According to the DEIS/DEIR, the study was conducted and prepared as an interim response to Senate Committee on Public 11 Works Resolution, approved 25 June 1969. In addition, the Energy and Water Development and Related Agencies Appropriations Act for Fiscal Year 2010 provided funds for the Long Beach Breakwater Reconnaissance Study. The proposed Project area is in the eastern portion of San Pedro Bay, offshore from the City of Long Beach, California. This 18-square-mile area includes the Long Beach shoreline, the Los Angeles River estuary, the Middle Breakwater, the Long Beach Breakwater, Alamitos Bay Jetties, and open water between these features. The purpose of the study is to satisfy a federal mandate and to address the U.S. Army Corps of Engineers' aquatic ecosystem restoration mission. Their stated goal is to restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value within East San Pedro Bay during the 50-year period of analysis. The planning objective is to restore and support the sustained functioning of imperiled habitats such as giant kelp, rocky reef, wetlands, native oyster beds, eelgrass, and other habitats historically present in San Pedro Bay in order to support biodiversity of resident and migratory species.

Three Project alternatives were chosen, alternatives 2, 4a and 8, to carry forward as potentially cost effective with the highest ecosystem benefits. Of the three, the Tentatively Selected Plan (TSP) alternative 4a was chosen and includes the creation of deep water and breakwater kelp beds using artificial rocky reef substrate, installed artificial open water rocky reef, and nearshore artificial rocky reef installed to create shoals for eelgrass restoration.

Department Jurisdiction
As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. In this capacity, the Department administers the California Endangered Species Act, the Native Plant Protection Act, and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife trust resources. The Department is the State's fish and wildlife "Trustee Agency" under the California Environmental Quality Act (CEQA guidelines §15386). The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act in coastal marine waters of California. Pursuant to our jurisdiction, the Department has the following comments and recommendations regarding the Project.

Marine Biological Significance
The diverse shallow habitats and ecosystems within the nearshore Pacific Ocean, intertidal and subtidal areas of southern California bight, provide nutrients, diverse habitats and forage areas for thousands of marine species. Some of these species are unique to southern California. The marine habitats of San Pedro Bay are important essential fish habitat and fish nursery grounds for federal and State managed fish species. Existing important habitats include, but are not limited to, eelgrass habitat (*Zostera marina* and/or *Zostera pacifica*), natural rocky areas, wetland, sandy bottom, and giant kelp (*Macrocystis pyrifera*) beds. These habitats are important for local fish and invertebrates for forage opportunity, reproduction, nursery grounds, and shelter. These habitats currently provide important ecosystem services for the local nearshore marine ecology and biodiversity as well as providing services for humans such as supporting recreational and commercial fisheries.

East San Pedro Bay Historical Habitat
It is the Department's understanding that the intent of the Project is to restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value in the southern California bight and within East San Pedro Bay. The Department agrees with the DEIS/DEIR that substantial habitat loss and modification has occurred in the southern California bight but is concerned that the Project is not restoring habitat at locations it was lost and is instead creating habitat over functional soft bottom habitat and habitat that may not adequately support new altered habitat. For instance, the DEIS/DEIR notes that 93% of historical wetland habitat has been lost in East San Pedro Bay, which does not appear to have been addressed by the TSP. Wetland restoration is included in Alternative 8, not the TSP 4a. Due to the great loss of wetlands within the study area the Department recommends wetlands be given additional consideration in the FEIS/FEIR. The Department agrees that there has been loss of kelp habitat within the southern California bight, but much of the loss occurred outside East San Pedro Bay. This can be seen in figure 2-1 of the DEIS/DEIR that shows extensive kelp cover west and north of San Pedro Bay where historically hard bottom substrate occurs to support kelp beds. The Department recommends that the

3-1

3-2

FEIS/FEIR include a more detailed description of historical habitats within East San Pedro Bay and identify each site improvement as habitat restoration or creation. 3-3

Artificial Reefs and Hard Bottom Habitat Creation

The Department has authority for artificial reefs under a variety of roles including Statutory/Legislative Authority, Trustee and Responsible Agency Status under CEQA and the Marine Life Management Act, and an advisory role to other agencies. Fish and Game Code Section 6420-6425 established the California Artificial Reef Program (CARP) through legislation in 1985. The program was created to investigate the potential to enhance declining species through the placement of artificial reefs and is currently unfunded with no identified source of funding. The CARP does not consider reef placement for mitigation, dampening effects of sea level rise, improve diving opportunities, and restoration. In order to provide adequate consultation and advice to the principal permitting agencies on reef design, development, and purpose, the Department needs a comprehensive statewide scientifically based plan for overseeing the placement of artificial reefs in state waters. Without a scientifically based statewide artificial reef plan for California, the Department is not support of any new artificial reef or artificial habitat at this time regardless of intent. Therefore, the comments found within this letter are meant to address ecological concerns, habitat alterations, and motivations for the proposed project and will not specifically be directed at the Department's policy and program of installing a new reef in the project area.

Monitoring and Adaptive Management Plan

The East San Pedro Bay Ecosystem Restoration Study – Appendix F: Monitoring and Adaptive Management Plan (Appendix F) outlines a monitoring and adaptive management plan. The plan identifies the monitoring period, performance targets, monitoring design, monitoring procedures, and results and analysis. The plan also identifies the California Eelgrass Mitigation Policy (CEMP) for eelgrass and use of accepted kelp protocols that are currently being used to monitor other restoration projects in the near vicinity. An adaptive management strategy will be developed as necessary to either repair or expand artificial reef and kelp beds in case the performance standards are not met. This includes 5 to 10 years maximum for monitoring and managing kelp beds, reefs, and eelgrass. Up to 50 years of monitoring (once every 10 years) of maintenance and repair of rocky reefs is proposed. The monitoring and adaptive management plan does not state what would happen if performance standards are not met within 10 years for the rocky reef habitats. Should the sections of the Project not be successful that include placement of structure, the Department recommends that financial assurance be put in place to pay for removal should success not be possible. 3-4 3-5

The Department is concerned that artificial reefs and habitat creation activities could attract invasive species. An invasive species performance standard, monitoring plan, and protocols should be added to the monitoring and adaptive management plan for each habitat type. 3-6

The Department is concerned about the performance standard for Habitat Type 3: Rocky Reef in Appendix F. The performance standard is that the area of exposed rocky reef substrate is sustained at 90 to 100 percent of the implementation area. This standard does not reflect any ecological or biological standard for success. While biological communities and reef production will be monitored during years 3 and 5, they are not a part of the success criteria and the Department recommends biological success criteria be included should artificial reefs be pursued. 3-7 3-8 3-9

The monitoring and adaptive management plan includes sending the monitoring reports annually to an Adaptive Management Team (AMT) that would include permitting and interested resource agencies for review and guidance in an advisory role. The Department is a permitting and resource agency and requests to be included on the AMT. While Appendix F notes that the Department's South Coast Region 5 should be included as a resource agency, the Department's Marine Region 7 should be included on the AMT. 3-10

Kelp Bed Restoration

The Department is concerned about kelp bed restoration through the placement of rocky habitat at this time without addressing the root cause of kelp loss in California. Multiple efforts are underway throughout California with varying levels of success to restore kelp habitat. Due to a variety of environmental factors such as loss of sea stars that predate on urchins, rising ocean temperatures, runoff and environmental contaminants, and invasive species, ecological conditions may not exist that support natural recruitment of giant kelp at the project site at this time. This may result in modifying and losing softbottom habitat, that while deemed less economically and ecologically important and more common, still plays an important ecological role in California's marine ecosystem. The Department recommends that the FEIS/FEIR explain how the study determined the potential success of kelp restoration using natural recruitment at this site under current environmental conditions. In addition to the monitoring plan and success criteria described in Appendix F, the Department recommends the FEIS/FEIR include a phased approach that includes Department and other agency input at each step of the phase should the Project move forward to better understand how kelp may increase in East San Pedro Bay from habitat creation. There is increasing interest from stakeholders to engage in kelp restoration activities. To ensure communication, a collaborate approach, and the appropriate review and permitting for these activities, the Department requests that all project applicants consult with the Department prior to initiating any kelp restoration activities. 3-11 3-12 3-13 3-14

Eelgrass

The Department recommends the FEIS/FEIR include additional information on why eelgrass bed restoration is not being pursued at locations where eelgrass is currently located and in areas that do not need rocky reef habitat and sediment placement to protect the proposed new eelgrass habitat. The Department recognizes that eelgrass restoration is challenging even in systems where eelgrass is already or historically located. For that reason, the Department recommends further analysis in the FEIS/FEIR 3-15

3-16

of an alternative that includes expansion of existing eelgrass beds as opposed to creating new habitat for increased potential of success. Should the Project move forward, the Department recommends, in addition to the Appendix F success criteria and monitoring plan, a phased process for eelgrass restoration within the Project's adaptive management plan to gauge success and improve eelgrass habitat. Collection and transplant of eelgrass requires a Scientific Collecting Permit from the Department.

3-17

Construction Level Impacts

Construction level impacts should be avoided or minimized to the greatest extent feasible. The FEIS/FEIR should include details for barge anchor placements, best management practices, and dredging plans. This should include, but not be limited to, sensitive species and habitat avoidance plans, marine mammal monitoring, and an oil spill and prevention response plan. Habitats that should be avoided include existing eelgrass, potential eelgrass habitat, giant kelp habitat, aggregations of invertebrates (e.g. echinoderm and bivalve beds) to the extent feasible. Additionally, care should be taken to identify and avoid areas that have natural cobble and boulder.

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The Department recommends the FEIS/FEIR include habitat/species impact avoidance and minimization plans, maps, and diagrams showing mapped out habitat and species locations. Avoidance and minimization measure plans should include pre-and post-construction surveys for the specific habitat and species to be protected. Feasible methods for transplanting or re-locating species should be considered to avoid impacts. Finally, the Department recommends finalizing habitat/species protection plans in coordination with the Department prior to construction.

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Conclusion

The Department appreciates the opportunity to comment on the IFR and DEIS/DEIR and looks forward to reviewing additional information as it becomes available. If you have any questions or comments, please contact Ms. Loni Adams, Environmental Scientist, (858) 627-3985 or Loni.Adams@wildlife.ca.gov. For kelp related questions, please contact Ms. Rebecca Flores Miller, Environmental Scientist, 831-649-2835 or Rebecca.FloresMiller@wildlife.ca.gov.

Sincerely,

Craig Shuman, D. Env
Marine Regional Manager

ec: Becky Ota, Program Manager
Department of Fish and Wildlife
Becky.Ota@wildlife.ca.gov

Loni Adams, Environmental Scientist
Department of Fish and Wildlife
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Bryant Chesney
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4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

January 24, 2020

Mr. Eduardo De Mesa, Planning Division Chief
U.S. Army Corps of Engineers, Los Angeles District
Attn: Mr. Naeem Siddiqui
915 Wilshire Boulevard, Suite 930
Los Angeles, California 90017-3489

Subject: East San Pedro Bay Ecosystem Integrated Feasibility Study and Draft Environmental Impact Statement, Los Angeles County, California (CEQ No. 20190283)

Dear Mr. De Mesa:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The EPA supports the U.S. Army Corps of Engineers' planning objective to restore imperiled aquatic habitats, such as kelp forests, rocky reefs, and coastal wetlands that were historically prevalent in the San Pedro Bay, to a quality and quantity sufficient to support diverse resident and migratory species. This study analyzes the application of separate aquatic ecosystem functions and values to five zones - nearshore, open ocean, the mouth of the Los Angeles River, port, and breakwater areas – across 18 square miles from the Port of Long Beach to Alamitos Bay.

A variety of habitat types were assembled into three action alternatives and the costs and benefits of each alternative were compared to ascertain improved habitat output relative to cost. In the DEIS, Alternative Plan 2 is identified as the least-cost "Best Buy" action plan that minimally meets planning objectives in three of five habitat types: nearshore rocky reefs to support eelgrass beds and open water kelp forests. The "Cost-Effective" Alternative Plan 4A incorporates the measures above and adds two 15-acre rocky reef patches alongside an oil island in the open water zone to augment other rocky reef habitat. The "Best Buy" Alternative Plan 8, the most expensive with the highest habitat output, expands the benefit area to include all five zones and addresses other scarce habitats by proposing an oyster bed, the construction of a 24-acre sandy island with undisturbed habitat for threatened and endangered shorebirds, and two tidal salt marsh wetlands totaling 52-acres to provide transitional habitat supporting aquatic and terrestrial species (Appendix B pages 1-2 through 1-6).

The Tentatively Selected Plan is identified as Alternative Plan 4A because the desired level of output is found to be worth the investment (DEIS p. 4-1). We note, however, that Alternative Plan 4A does not include restoration of any scarce coastal wetland habitat types (Appendix C p. 6-15). The EPA recommends that the Corps consider restoring a portion of the coastal wetland/tidal saltwater marsh, presented as a component of "Best Buy" Alternative Plan 8, as an additional commitment with Alternative Plan 4A. Our enclosed comments further describe this recommendation and others to further improve environmental outcomes, reduce adverse water quality impacts, and improve coastal resiliency. 4-1

Effective October 22, 2018, the EPA no longer includes ratings in our comment letters. Information about this change and the EPA's continued roles and responsibilities in the review of federal actions can be found on our website at https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act.

The EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: TIP-2). If you have any questions, please contact me at (415) 947-4167, or contact Robin Truitt, the lead reviewer for this project, at 415-972-3742 or truitt.roberta@epa.gov.

Sincerely,

Jean Prijatel, Manager
Environmental Review Branch

Enclosures: U.S. EPA Detailed Comments

Cc: Christopher Koontz, City of Long Beach
Joshua Hickman, City of Long Beach
Naeem A. Siddiqui, U.S. Army Corps of Engineers
Bryant Chesney, National Marine Fisheries Service
LB Nye, Regional Water Quality Control Board
Jon Avery, U.S. Fish and Wildlife Service

U.S. EPA DETAILED COMMENTS ON THE EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY AND DRAFT ENVIRONMENTAL IMPACT STATEMENT, LOS ANGELES COUNTY, CALIFORNIA – JANUARY 27, 2020

Coastal Wetland Functions and Values

The East San Pedro Bay Ecosystem Integrated Feasibility Study and Draft Environmental Impact Statement analyzes three action alternatives, only one of which - "Best Buy" Alternative Plan 8 - proposes restoration for wetlands. Fifty-two acres of coastal wetland restoration in two projects are proposed and evaluated, with the first being a highly-engineered, 42-acre tidal salt marsh that would be constructed in deeper water alongside the Port of Long Beach, and the second being a 10-acre wetland proposed nearer the mouth of the Los Angeles River. Although coastal wetlands are effective in boosting Average Annual Habitat Units, no coastal wetlands are included in the Tentatively Selected Plan Alternative 4A, due to the incremental cost per habitat unit (p. 4-72).

Restoring even a small, 10-acre tidal salt marsh just inside the mouth of the Los Angeles River across from the Golden Shores Reserve would provide needed habitat connectivity, facilitate the exchange of species, support nursery functions, and provide resiliency if other wetlands are damaged or degraded (pages 1-4, 4-46). We note that the only existing wetland within the entire project area is the relatively small, isolated 6.5-acre coastal salt marsh at the Golden Shore Marine Reserve, just inside the mouth of the Los Angeles River (pages 2-7, 3-16).

Recommendations:

- Consider implementation of the 10-acre wetland as a part of Alternative 4A (separately from the 42-acre wetland) to reduce costs while providing necessary ecosystem benefits. Benefits would include boosting nursery production, bolstering aquatic, amphibian, and coastal bird populations, and indirectly providing filtration services to improve water quality. Include the analysis of the impacts, costs, and benefits of implementing just the 10-acre scenario in the FEIS (versus the 10-acre and the 42-acre wetland scenario together) to inform the public and decisionmakers about this option. 4-2 4-3
- Continue working with the U.S. Fish and Wildlife Service and other members of the Study Team and Technical Advisory Council to prioritize projects that restore native habitats in the project location and best meet specific planning objectives of this Integrated Feasibility Study and Scarce Habitat Plan (Appendix H; DEIS pages 4-65, 71). 4-4

The DEIS identifies that dredged sediments and construction materials can be used to construct features that mimic degraded or lost habitats such as coastal wetlands to restore regional patterns of ecosystem functions and outputs (p. 2-4). Most of the cost of restoration measures is in material price (Appendix B p. 2-2). Here, the Study anticipated that the primary source of sand and other fill to construct wetlands would come from the Surfside/Sunset Borrow pit located 3 miles south of East San Pedro Bay (DEIS p. 4-34).

Recommendations:

- In the FEIS and Record of Decision, commit to beneficially re-using dredge and fill material from nearby dredging of port and navigation channels to fullest extent practicable, as testing and timing allow. 4-5
- Consider updating the cost/benefit analysis in the FEIS to include an additional cost estimate of applying direct placement of dredged materials from the Corps' Port of Long Beach Deepening and Naval Weapons Station Seal Beach Expansion proposal (without the need to take material to the Surfside/Sunset Borrow pits first and then retrieve materials later for 4-6

construction). Indicate any associated cost and time savings in the event direct placement of fill material is determined to be feasible.

Consistent with the survey methods at the Golden Shore Marine Reserve, any coastal wetland vegetation would be monitored and surveyed annually during the peak growing season to assess vegetation cover, species diversity, and the overall quality of wetland habitat. Bird species composition and abundance would be surveyed by biologists twice per year: once in winter and once in spring. High quality wetland habitat characterized by healthy vegetation that increases in cover each year, limited cover by non-native species, and presence of targeted species would determine the success of any wetland restoration measures (DEIS p. 4-49).

Recommendation:

If any wetland restoration measures prove cost effective and practicable, commit in the FEIS and Record of Decision to maintain both the tidal salt marsh interior and structural components, such as caisson units damaged by large waves or components scoured or shifted during storm events. Include habitat maintenance, such as cleaning and removal of unwanted species and trash, as well as replacement of sediments lost from the system by tidal currents. 4-7

Sea Level Rise

The DEIS states that rise in sea level and storms of greater intensity and duration have the potential to undermine the functions and values of each restoration effort (p. 4-29). About half of remaining coastal wetlands in Southern California are projected to be submerged by the year 2100 as a result of a predicted 2.5-foot rise in the sea level (p. 2-8). The DEIS also notes that sea level rise in East San Pedro Bay is expected to exacerbate the loss of existing habitat, decrease the viability of vulnerable species, increase the chances of wetland habitat type conversion, and submerge transitional habitat (p. 5-13).

Wetlands minimize the vulnerability and increase the resiliency of communities to accelerating sea level rise. All proposed measures are expected to provide incidental, unquantified secondary benefits which will mitigate impacts of sea level rise by reducing coastal and shoreline wave heights and current velocities and reduce the potential for shoreline erosion (pages 1-6, 5-20 through 5-22).

Recommendations:

- In the Record of Decision, commit to designing each restorative measure with a consideration of specific needs to preserve functions and services over time and identify anticipated "enhancements" each measure may need due to changing conditions. For example, rocky reefs may need heavier or more stone material to maintain habitat requirements, and the sunlight requirements of eelgrass may need to be adjusted to accommodate rising sea levels. 4-8
- Commit to maintaining or restoring components of each implemented measure that may become inundated or damaged by large waves or storm events. 4-9

Email from Bryant Chesney (NMFS) regarding NMFS Issues/Consultation

From: Bryant Chesney - NOAA Federal <bryant.chesney@noaa.gov <mailto:bryant.chesney@noaa.gov> >
Date: Thursday, Jan 30, 2020, 1:40 PM
To: Solek, Christopher W CIV USARMY CESPL (USA) <Christopher.W.Solek@usace.army.mil <mailto:Christopher.W.Solek@usace.army.mil> >
Cc: Siddiqui, Naeem A CIV CESPL CESPD (US) <Naeem.A.Siddiqui@usace.army.mil <mailto:Naeem.A.Siddiqui@usace.army.mil> >, Lovan, Hayley J CIV (USA) <Hayley.J.Lovan@usace.army.mil <mailto:Hayley.J.Lovan@usace.army.mil> >
Subject: [Non-DoD Source] Re: ESPB NMFS Consultation

Good afternoon,
Thank you for the productive call yesterday. As discussed, I'm providing a summary of issues that should be addressed in order to move forward with informal ESA consultation for green sea turtles.

The IFR does not contain sufficient information to initiate ESA consultation (50 CFR 402.14), and thus precludes our ability to concur with your may affect, not likely to adversely affect determination. Below are some summary points for which I would appreciate a response to initiate the informal consultation.

There is incomplete/incorrect information regarding green sea turtles in the project area. For example, on page 5-84, the IFR indicates that 'Sporadic sightings of live sea turtles have been reported in Los Angeles-Long Beach Harbor in the past; however, none had been observed during the past 20 years (see Table 5-17); however, a dead leatherback sea turtle was collected recently in the area.' This is not consistent with the information I have verbally relayed and by email (e.g., 8/16/19 and 8/30/19). It is not critical that you provide additional information and/or revisions on green sea turtle presence to complete our ESA consultation process as we can help with that information need, but please plan to make appropriate changes in your final IFR/EIS. I presume our ESA consultation will be complete before issuance of the final IFR, so our response will include more detailed information that you may use. 5-1

I have some basic project clarification requests and am summarizing below in bullet form: 5-2
- Please estimate when construction would begin and end. I see that the Chief's report milestone is in August 2021. I understand there may be some uncertainty regarding project timing given the need for future authorization, but we need to at least be able to estimate the timing of the overall action in relation to other project activities that are affecting the environmental baseline.
- Does your defined project area include the Surfside/Sunset borrow site? I can't find a figure clearly delineating the borrow site location in your figures. Please provide a figure of the borrow site in relation to study area and restoration components. 5-3

In order for us to concur with a not likely to adversely affect determination, effects need to be discountable, insignificant, or completely beneficial. The USACE makes a number of conclusions without providing supporting information and/or analytical justification. I am summarizing the conclusions and our requests for clarification/information below:
'Construction activities would not result in the direct loss of habitat for sea turtles that may occur in the project area.'
Eelgrass is important foraging habitat for green sea turtles. The project has the potential to impact eelgrass habitat (0.5 acres), so some direct loss may occur. Adverse effects to eelgrass could

potentially be a form of harassment. The associated environmental commitment and narrative to avoid/minimize impacts to eelgrass is ambiguous.

- Please clarify how you are defining eelgrass habitat (e.g., CEMP definition or something else) 5-4
- Please clarify if you are committing to avoid the areas mapped as eelgrass habitat by Merkel (2017) (i.e. the comprehensive eelgrass survey in East San Pedro Bay), and any future pre-construction surveys performed for this project. 5-5
- The draft environmental commitment appears to indicate avoidance, if feasible. Given the project purpose (e.g., creation/restoration), please explain why avoidance of direct impacts would not be feasible. Please consider avoidance of direct impacts based on CEMP definition utilizing all available data, and remove 'if feasible' language if the USACE believes such avoidance is feasible.

'Construction activities, including dredging, would not likely result in direct mortality of green sea turtles.'

Hydraulic dredging is known to have resulted in direct turtle mortality in the Southeast, and we've at least one incident in southern California of such a turtle mortality associated with a dredge interaction (verified by expert turtle pathologist) that occurred coincident in time with similar offshore dredging for sand placement in northern San Diego County. We also have observed a number of turtle strandings in the ESPB project area associated with vessel encounters, and potentially dredge interactions (i.e., cracks in both the top and bottom of the shell).

- Please clarify the duration and seasonal timing of the dredging 5-6
- Please describe in greater detail the potential dredging equipment and how it would be carried out. 5-7
- Please describe any operational measures and/or environmental commitments that would be implemented to avoid/minimize mortality. For example, a common BMP used with hydraulic dredging on the East Coast is to disengage dredge pumps until the dragheads are firmly on the bottom. 5-8
- The IFR indicates that dredging can occur 24 hours per day, 7 days per week, but one of the environmental commitments indicates that work would occur only during daylight hours when visual monitoring of marine mammals and sea turtles can be conducted. Please clarify whether dredging would occur 24/7 or during the daylight hours only. 5-9

'Construction activities may result in indirect impacts from noise, turbidity, and barge/equipment travel to and from construction sites within the bay, causing turtles to temporarily avoid activity areas'

The IFR indicates that Alternative 4A is anticipated to take approximately 37 months to construct. Given our understanding of turtle presence, movements, and foraging behavior, turtles may normally be using some of the nearshore areas along E. San Pedro Bay. Thus, the project may preclude the use of these areas for over three years. Combined with the environmental baseline (e.g., Navy Seal Beach Ammunition Pier and Turning Basin), this could potentially cause harassment. 5-10

- Please describe the duration and timing of individual nearshore restoration components to better understand the effects and exposure of these actions to turtles? How long will the nearshore reef placement and sediment placement occur and what time of year will the work be done? 5-11

I appreciate the inclusion of an environmental protection plan that includes a green sea turtle monitoring and avoidance plan. However, the methods and procedures for monitoring/avoidance are not provided in the IFR, so the benefits of the plan are uncertain.

- Please describe methods/procedures in greater detail so that we better understand how it would avoid/minimize effects to turtles and/or validate assumptions made in your effects analysis. 5-12

As examples that may facilitate your understanding of ESA green turtle effects analysis and appropriate mitigation measures, I'm attaching an EFH/ESA Programmatic Consultation we are implementing with the Navy in San Diego. In addition, I'm attaching an EFH/ESA LOC for a Navy action in San Diego Bay, which is similar to the nearshore reef/eelgrass restoration components and may have similar effects. Some of their commitments and design criteria (e.g., monitoring and associated operational adjustments) may be useful for your proposed project. I would also recommend reaching out to your colleagues in Vicksburg. I believe they have a lot of experience with managing dredge/sea turtle interactions, and are working on various mitigation measures (e.g., BlockedBlockedhttps://www.usace.army.mil/Media/News-Archive/Story-Article-View/Article/925977/erdc-demonstrates-new-equipment-approach/). I understand the example I provided may not be feasible to commit to at this stage given contractual limitations, but I'm providing it as an example of the experience they've developed over time and because I believe they'd probably be a very good resource for you. Lastly, I'm providing a link to a technical document developed in the Southeast for sea turtle dredge interactions: BlockedBlockedhttps://espis.boem.gov/final%20reports/5652.pdf. Please know that the risk and exposure is much higher in the Southeast for a variety of reasons, so I'm not implying that all the mitigation approaches used out there would be applicable/appropriate for your project. However, I believe you should consider some of the basic BMPs, as we discussed on our call.

Once we receive a sufficient response to our information needs, I will do my best to expedite our integrated ESA/EFH response so that it does not adversely affect your project timeline. The revised regulations allow for 60 days upon receipt of a complete initiation package, but our internal WCR guidance is to complete within 30 days. That said, I aim to complete even sooner.

Please let me know if you have any questions about our information needs and if you'd like assistance with developing more refined environmental commitments.

Cheers,
Bryant

JACOBSEN PILOT SERVICE, INC.

January 20, 2020

To: Naeem A. Siddiqui, Ecosystem Planning Section, U.S. Army Corps of Engineers
ESPB@usace.army.mil **Fax: 213-452-4204**

RE: East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments

I am writing to **SUPPORT** the USACE decision for Alternative 4A, the Tentatively Selected Plan, which maximizes ecosystem restoration benefits for the East San Pedro Bay compared to costs, while keeping the breakwater in place so it can continue to provide important benefits and protection to the City and Port. 6-1

For mariners who make their living at sea, we appreciate the importance of the breakwater every day. Any modifications to the breakwater reducing its protective function would be catastrophic for our Port, the City, homeowners along the coast, marinas, and ships at inside anchorage.

Long Beach breakwater protects our City and Port

The important benefits that our Breakwater provides

Long period swells from the South, passing storms and hurricanes cause can cause major problems for our City and Port.

Carnival Cruise Line

Carnival Cruise terminal is severely affected by South swells. A long period wave of 16 seconds or more, with a height of only 2 feet can cause the ship to surge at the dock and start breaking lines. For one example, on July 21st, 2018 the Southern swell of only 2 feet caused the Carnival ship to surge and mooring lines parted. This was a very small Southerly swell and conditions often get much worse than that. When ships start parting lines, the situation can get dangerous for the crew members or the passengers getting on and off the ship.

The article below explains when Carnival had to bypass Long Beach due to the long period swell making their Long Beach Terminal unusable.

Waves along California force cruise ship to change course;
https://www.presstelegram.com/2015/05/03/waves-along-california-force-cruise-ship-to-change-course/

**Any modifications to the Long Beach breakwater will allow more wave energy into the Port, which would negatively impact Carnival Cruise line.

Carnival Cruise Line in Long Beach needs a safe and protected harbor

Pier J South terminal

Many of the larger container vessels that call on Pier J South have only a few feet under keel clearance. It is absolutely critical to keep these ships in calm and protected waters while we maneuver the ships in and out of the dock. A 2 degree roll on this ship will increase the draft by 3 feet, which could cause the ship to touch bottom. A half of degree pitch (lengthwise movement) would increase the draft by 5 feet. This would definitely cause the ship to hit bottom.

While the ships are alongside the dock at Pier J South, they typically start surging when there is a swell of 3 feet or more with a period of 16 seconds or more. Again, this can be a dangerous condition for the longshoremen or crew members.

18,000 TEU ships 1200' LOA and 170' Beam.

VLCC's at 69-foot draft

We have recently increased the draft of the VLCC's (Very Large Crude Carriers) to 69 foot draft. We use a sophisticated program called "ProTides" that takes into account the latest swell and sea conditions, then predicts our roll and pitch, which then calculates our UKC (Under keel clearance). It's an amazing achievement and the first of its kind in the United States, but this is only possible because we are entering a calm and protected port complex.

VLCC entering through Long Beach breakwater at 69’ Draft

August 27, 2014 HURICANE MARIE

Below is an example on some damage caused by Hurricane Marie. To see video, go to link below.

South Swell Damage 8-27-14

Picture looking down the Navy Mole on Nimitz Road, a two lane road being engulfed by huge waves during Hurricane Marie August 27, 2014. Waves actually hit the Sea Launch building! See this video here: https://www.jacobsenpilot.com/press.html

South Swell Damage 8-27-14

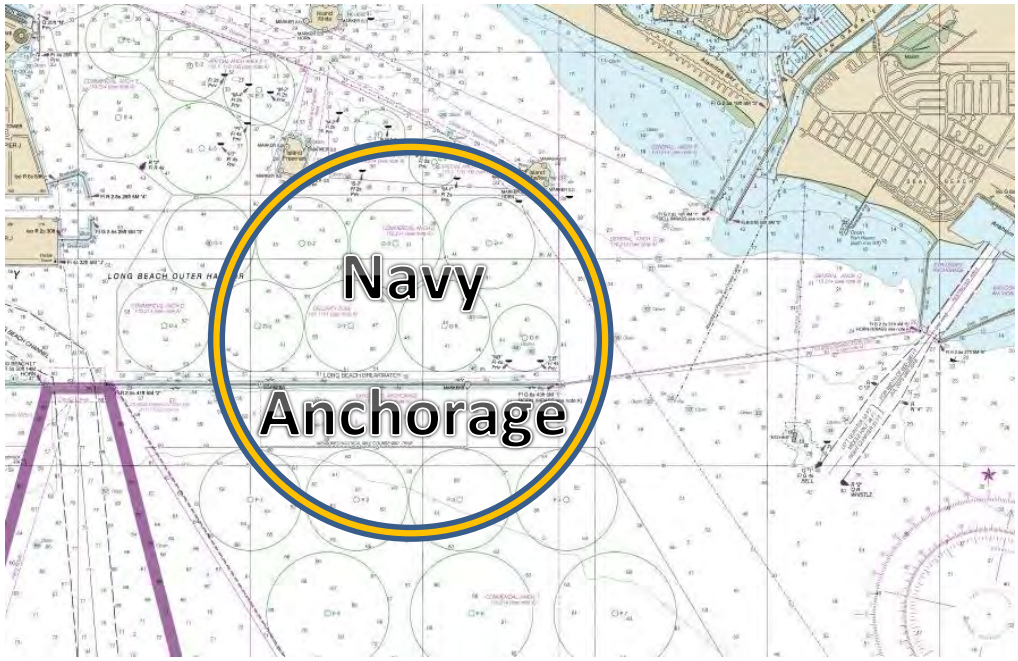
South Swell Damage 8-27-14

From Wikipedia: “The Army Corp estimated that it would take more than $20 million to repair just the Major breaches along the middle breakwater” = https://en.wikipedia.org/wiki/Hurricane_Marie_(2014)

East Anchorage in Long Beach

The East anchorages of Long Beach are critically important for the ships that do business in our Port. Commercial cargo ships get fuel from bunker barges while at anchor. This fueling operation must take place in calm and protected waters. Commercial cargo ships also conduct repairs while at anchor or make various preparations before they go to the dock. The breakwater allows ships to do their business at anchor safely.

The United States Navy has their own anchorage in our East Bay. For the same reasons, the Navy needs calm and protected waters to conduct their operations. The idea of “Sinking the Breakwater” or creating holes in the breakwater would jeopardize our safe anchorage area for commercial and Navy ships.



All of our 20 professional ship pilots and 11 boat operators who work the waters of Long Beach 24x7 know the importance of keeping the breakwater as it is. We support the USACE and the Tentatively Selected Plan. 6-2
Please contact me anytime if you have questions.

Sincerely,

Captain Thomas A. Jacobsen,
President
tomj@jacobsenpilot.com

Post Office Box 1949
San Pedro, CA 90733
Phone: 310.519.3134
24-Hr. 310.832.6411
FAX: 310.241.0300
info@mxsocal.org
www.mxsocal.org

A non-profit organization providing vessel traffic and maritime information service for Southern California

21 January 2020

U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017-3489
ATTN: Mr. Naeem A. Siddiqui

Subject: Comments on East San Pedro Echosystem Restoration Feasibility Study, Draft Integrated Feasibility Report and Environmental Impact Statement/Report (EIS/EIR)

Dear Mr. Siddiqui,

I am the Executive Director of the Marine Exchange of Southern California. We operate the Vessel Traffic Service for the Ports of Los Angeles and Long Beach. Our Vessel Traffic Service performs a function for ships that is like Air Traffic Control for Aircraft. We have people on watch 24 hours a day, 7 days a week, and 365 days a year that make sure that more than 28,000 vessel movements per year are safe, secure, efficient, reliable, and environmentally sound. This includes vessels arriving, departing, and moving around the Los Angeles and Long Beach Port complex and adjacent coastal waters.

We support the U.S. Army Corps of Engineers decision for Alternative 4A, the Tentatively Selected Plan, because it maintains the operational capacity of the ports, maintains the navigation channels and anchorages, and is good for the environment.

With respect to navigation channels, many ships arriving at the Port of Long Beach have a very deep draft and need flat and calm water to move inside the harbor or there would be risk of grounding. If the East Breakwater were removed or modified, we will see waves where there is presently flat and calm water, and the ships moving in the choppy water could touch bottom and run aground. Some of these ships might take their business elsewhere. Others would arrive with less

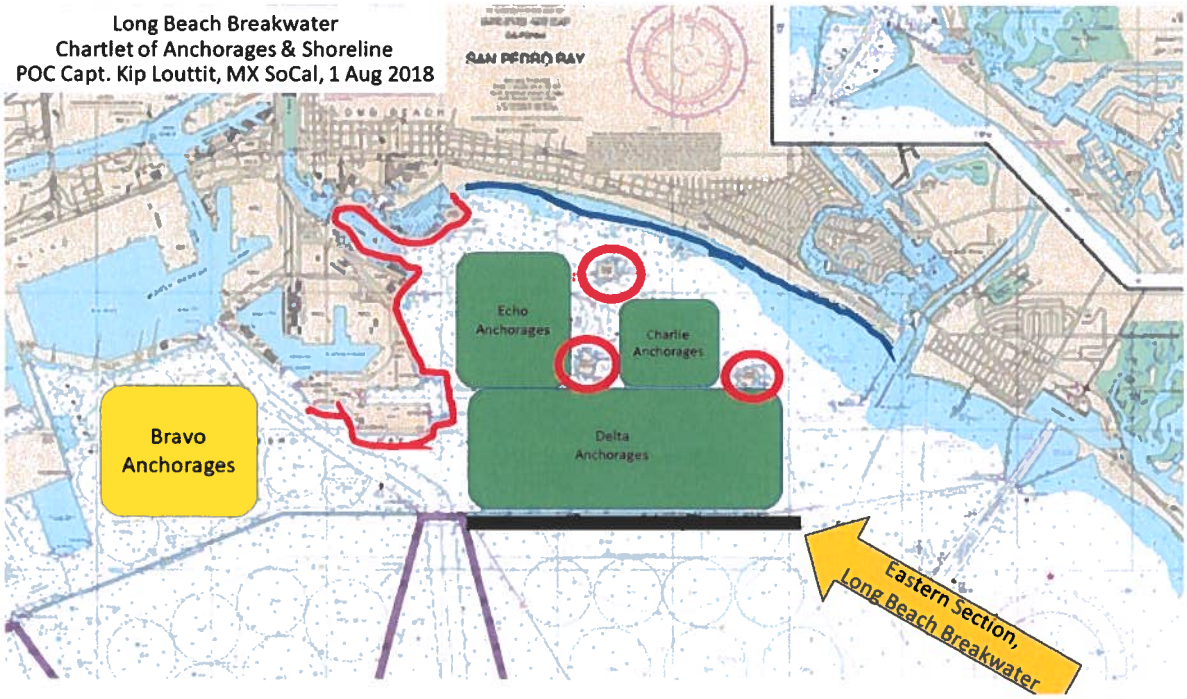
cargo so they have a shallower draft, which inefficient and increases emissions because you would need more ships to move the same amount of cargo.

Very large crude oil carrier inbound Long Beach and very large container ship outbound, both in the wave shadow of the middle and east breakwaters. These very deep draft ships need flat water, provided by the breakwaters, to safely transit without touching bottom.

With respect to anchoring: Most ships arriving at the Ports of Los Angeles and Long Beach go directly to a dock to offload or onload cargo. Other ships anchor for a period of hours or days waiting for their dock to become available, to

undergo an inspection, to change crewmembers, or to wait for their next assignment after unloading. These ships anchor *outside* the Breakwater where they rock and roll in the waves. No problem.

However, many other ships need to anchor in calm and flat water to conduct their carry out repairs and refueling. Repairs and refueling must be done in flat and calm water.



Chartlet showing anchorages inside the breakwaters.

The chartlet above shows the anchorages inside the East breakwater (Charlie, Delta and Echo), shaded in green, which provide calm and flat water for ships to do their business that requires flat and calm water. The red circles are the 3 oil islands. The Bravo Anchorages, highlighted in yellow, are inside the middle breakwater. If the East Breakwater were removed or modified in any way, it could eliminate this flat and calm water. There aren't enough Bravo anchorages inside the middle breakwater for all the ships anchored inside the Charlie, Delta, and Echo

anchorages to move over to the Bravo Anchorages. If ships cannot get what they need at our port complex, they will go elsewhere, which would have a devastating effect on the delivery of necessary goods to the ports and the region, with associated loss of commerce and jobs to all firms industries associated with the shipping. Presently, 1 in 9 jobs in the area are related to port activity.

The 20 employees of the Marine Exchange, several of whom who have worked for the Marine Exchange for more than 20 years, have vast experience with these concepts and support the decision of the Corps of Engineers. It's critical to keep the breakwater unchanged. Thank you for the opportunity to comment. 7-1

Sincerely,

Captain J. Kipling (Kip) Louttit
Executive Director
klouttit@mxsocal.org
Work Phone: (310) 519-3127

Hurricane Marie waves breaking on the breakwater. Imagine the damage if these waves struck land, the oil islands, or shoreside infrastructure.

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

January 27, 2020

U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017-3489
ATTN: Mr. Naeem A. Siddiqui
Email: ESPB@usace.army.mil

Subject: Comments on East San Pedro Ecosystem Restoration Feasibility Study, Draft Integrated Feasibility Report and Environmental Impact Statement/Report (EIS/EIR)

8-1

The Pacific Merchant Shipping Association (PMSA) supports the US Army Corps of Engineers decision selecting Alternative 4A, the Tentatively Selected Plan (TSP), which maximizes ecosystem restoration benefits for the East San Pedro Bay compared to costs.

PMSA represents marine terminal operators, shipping lines and maritime companies doing business at US west coast ports. We support Alternative 4A because it restores over 200 acres of aquatic habitat without impacting the operational capabilities of the Port of Long Beach. Any modifications to the Long Beach breakwater would reduce the port's ability to provide a protected harbor for vessel navigation and operations. Calm water is critical for safe operations of cargo loading and unloading, refueling and when transferring people or equipment. The report determined "… results show that the breakwater modifications resulted in providing no habitat value for the types of habitat being proposed for restoration."

The Port of Long Beach is the nation's second busiest container seaport. Economic activity at the port supports 51,090 jobs in Long Beach. Across Southern California, the port supports more than 575,000 jobs providing $30.8 billion in income. As one the nations critical assets, maintaining safe operational capabilities of the port was one of major constraints of the study.

We are pleased to support Alternative 4A because it balances protecting a critical seaport and jobs while restoring 200 acres of kelp beds, rocky reef and eelgrass habitat within the East San Pedro Bay. PMSA looks forward to continuing to participate in this process. Please feel free to contact me if you have any questions.

All the best,

Michele Grubbs
Vice President

9

SSAMarine
A Carrix Enterprise

1521 Pier J Ave
Long Beach California
90802 US

562/983-1001 tel
562/432-3834 fax
www.ssamarine.com

December 6, 2019

Mr. Eduardo T. De Mesa
Chief, Planning Division
US. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Suite 930
Attention: Mr. Larry Smith
Los Angeles, California 90017-3401

On behalf Of SSA Terminals/Pacific Maritime Services, we would like to thank the U.S. Army Corps of Engineers for the extensive ecosystem restoration study for East San Pedro Bay.

The study not only restores the habitat in the basin, it also ensures the safety of over 20,000 annual jobs at Pier J South berth 266-270. As you may be aware, Vessels Berth at Pier J South weekly and currently experience movement from 5-10 feet when there is a large south storm. As you can imagine, workers that unload and load containers that average 20 tons each must be very careful while on a vessel moving as mentioned. As safety of our workforce is our #1 goal, we are in full support of this study as it ensures that the Long Beach Breakwater is not compromised. Compromising the breakwater would have significantly increased the movements of the vessels and would very likely result in unworkable conditions for our labor.

SSA Terminals/Pacific Maritime Services supports the study by the U.S. Army Corps of Engineers to the East San Pedro Bay as presented with no additional modifications to the break wall.

9-1

Sincerely,

Sal Ferrigno
Vice President
SSA Terminals/Pacific Maritime Services

10

Recreational Boaters of California

Mail donation checks to
RBOC
c/o Otis Brock
1253 Yuba Avenue
San Pablo, CA 94806

January 23, 2020

Mr. Eduardo De Mesa
Planning Division Chief
U.S. Army Corps of Engineers, Los Angeles District
ATTN: Mr. Naeem Siddiqui 915 Wilshire Boulevard Los Angeles, CA 90017

Chief Mesa:

This is to provide the comments of Recreational Boaters of California [RBOC] regarding the Draft Integrated Feasibility Report and Environmental Impact Statement / Environmental Impact Report pertaining to the East San Pedro Bay Ecosystem Restoration Feasibility Study of the City of Long Beach.

RBOC is the nonprofit advocacy organization that works to protect and enhance the interests of recreational boaters throughout California.

RBOC acknowledges and appreciates the objectives of this project to restore 18 square miles of the East San Pedro Bay from approximately the Port of Long Beach to Alamitos Bay in a manner that restores aquatic ecosystems in a marine environment, and increases abundance and biodiversity of marine populations in East San Pedro Bay. 10-1

RBOC is concerned that elements in this project, which include additional rock habitat structure that would support kelp, eelgrass and other sensitive species or habitat types, would have a significant, negative impact on boating. 10-2

Specifically and as clearly shown in the attachment, the project would place kelp beds in areas that are very popular for boaters throughout the region. These routes provide for safe navigation and have been extensively utilized for several decades. This will only increase in the future as key boating events are planned in this area that will provide both recreational opportunities and economic benefits for the region.

RBOC therefore requests that:

1. The RBOC organization be included as a stakeholder in any process going forward. 10-3
2. The Tentatively Selected Plan (Alternative 4A) be revised to ensure that the negative impacts on recreational boating are eliminated as the project moves forward. The provisions are set forth on P367, Lines 18-21. 10-4

Thank you for this opportunity to provide RBOC's comments on this important project. Please feel free to contact RBOC advocate Jerry Desmond, at 916.441.4166, with any questions.

Sincerely,

Daniel J. Hodge

Daniel J. Hodge, President

C: Long Beach Mayor Robert Garcia
Long Beach 3rd District City Councilwoman Suzie Price
Southern California Yachting Association Commodore John Marshall
California Coastal Commission
Long Beach Area Yacht Clubs

Enclosure

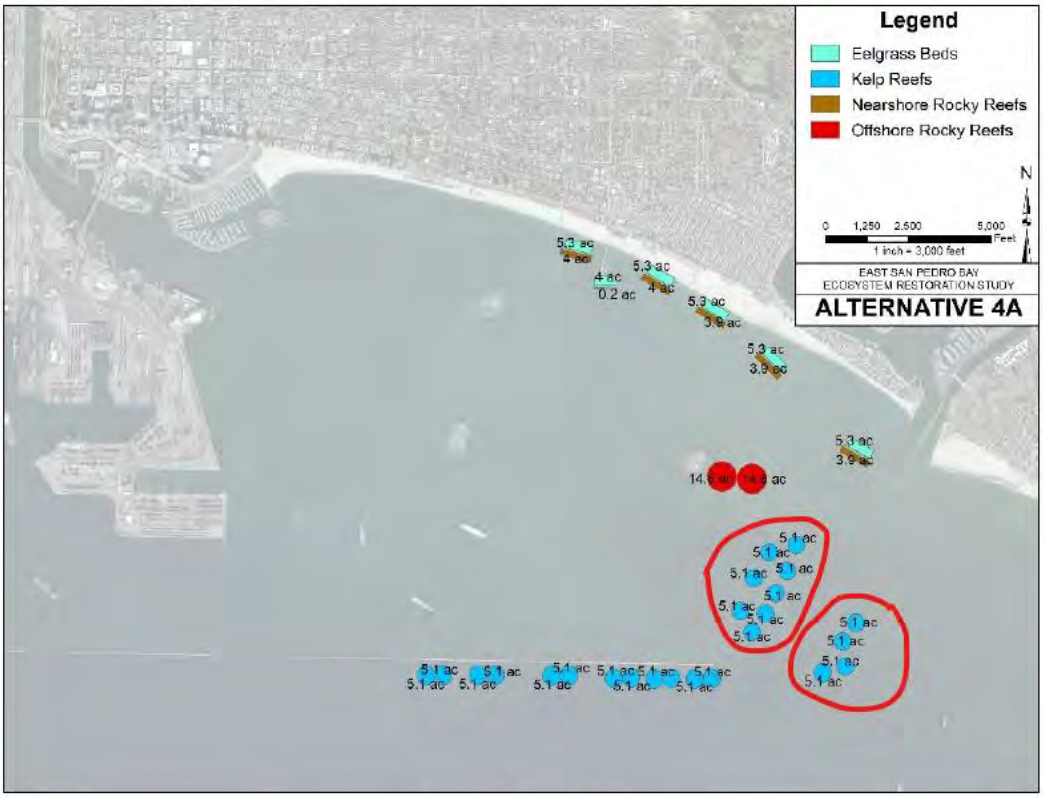


Figure 4-16: Alternative 4A

Kelp Bed Siting and Design Considerations

121 acres of giant kelp beds are restored in the breakwater and open water zones. 60+ acres in twelve, roughly five acre patches would be placed at irregular intervals along the seaward side of the existing breakwater. The kelp beds would be placed along the breakwater, expanding existing kelp forests on the submerged breakwater rock. The undulating edge would break up the linear configuration of existing breakwater rock, creating an "edge effect." This change would increase ecological complexity and value of kelp habitat. Another 60+ acres of kelp habitat in twelve, roughly five acres patches would be restored in the open water, off of the eastern end of the breakwater. This location allows kelp to take advantage of beneficial and nutrient rich cold water currents that giant kelp need to thrive. A recreational boating passageway is shown with the split configuration, which is subject to change.

Each kelp reef will be roughly circular in shape, spanning approximately 500' in diameter, with approximately 20% total bottom coverage of substrate with only one layer of stone thickness. Each five-acre patch of kelp is assumed to be the minimum size based on prior studies approved by National Marine Fisheries Service. A kelp bed with a canopy size of at least five acres would likely persist during extended periods of unfavorable conditions (e.g., El Niño events). Placement of kelp is designed to optimize the optimal conditions kelp need to thrive: cool temperatures, abundant nutrient flows, wave motion and clean waters. Placing kelp beds out beyond the breakwater provides connectivity between breakwater kelp and rocky reef with the nearshore intertidal zone rocky reef and eelgrass shoals. Kelp forests may aide in dispersing short period wave energy to help protect beaches from erosion (Schoenherr, 1992). Wave energy from distantly generated swells will not be effected by the kelp forests.

SURFRIDER FOUNDATION
LONG BEACH

January 27, 2020

Mr. Naeem Siddiqui

Project Environmental Coordinator

Naeem.A.Siddiqui@usace.army.mil

Subject: East San Pedro Bay Ecosystem Restoration Feasibility Study Draft IFR Review Comments.

On behalf of the Surfrider Foundation Long Beach Chapter, I am writing this letter in response to the East San Pedro Bay Ecosystem Restoration Feasibility Study Draft IFR, released in November 2019 (herein referred to as the Draft Report)[1].

Background

The Surfrider Foundation is dedicated to the protection and enjoyment of the world's ocean, waves and beaches through a powerful activist network. While supporting the mission and principles of the Surfrider Foundation, the Long Beach Chapter is dedicated to reconfiguring the Long Beach Breakwater to bring waves back to Long Beach.

In June of 1996, the U.S. Army Corps of Engineers (USACE) contacted *Long Beach Press Telegram* reporter Bill Hillburg about celebrating the 50th anniversary of the Long Beach Breakwater. His response was a three part article recommending removal or reconfiguration of the Breakwater. The Long Beach Chapter of the Surfrider Foundation were born of this public response and has been advocating for reconfiguration of the Breakwater ever since. This advocacy consisted of persistent public outreach to citizens, elected officials, and government staff. In year 2005 the Long Beach City Council agreed to study the issue with the USACE. This effort concluded in the USACE determining that the federal government does have interest in proceeding to a feasibility study under the auspices of a single purpose ecosystem restoration study (herein referred to as the Study).

1 East San Pedro Bay Ecosystem Restoration Feasibility Study, City of Long Beach, CA, Draft Integrated Feasibility Report and Environmental Impact Statement/ Environmental Impact Report. November 2019.

After 24 years working on this project, our chapter is happy to have the opportunity to engage with the USACE in seeking means to achieve our goals. It is understood that our chapter goals do not exactly match the primary missions of the USACE. Instead we look to areas where our interests overlap and all parties may benefit.

Top Level Comments

Back in 2016, the USACE agreed to a study with the goals of ecosystem restoration, improving water circulation[2], tidal circulation, and water clarity[3]. After the Study was initiated, and for reasons unknown, it seems that the USACE abandoned these goals. What was delivered in the Draft Report is not ecosystem restoration, but ecosystem enhancement without any water circulation, tidal circulation, or water clarity improvements.

When the Study began it was sold as ecosystem restoration, which is defined by the USACE[4],[5],[6] as:

> The objective of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes to the landscape and hydrology[7].

To quote from the Draft Report the goal was to "Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the SBC (sic) within the Proposed Project Area of ESPB." In laymen terms this means the USACE wants to import high value habitats from the Southern California Bight into the Project Area. This goal matches well with the USACE definition of ecosystem enhancement:

> …this term now implies making the habitat better for some species than it would have been naturally in the absence of human intervention. Since this goes

2 Objectives, City of Long Beach East San Pedro Bay Ecosystem Restoration Feasibility Study, Community Scoping Meeting –Thursday April 7, 2016, Bixby Park Community Center, Long Beach

3 Study Opportunities. East San Pedro Bay Ecosystem Restoration Feasibility Study, U.S. Army Corps of Engineers, Los Angeles District, Public Scoping Meeting, April 7, 2016, Bixby Community Center, Long Beach

4 Department of the Army U.S. Army Corps of Engineers. Water Resources Policies and Authorities, Digest of Water Resources Policies and Authorities. Engineer Pamphlet 1165-2-1. July 30, 1999.

5 Department of the Army, U.S. Army Corps of Engineers. Water Resources Policies and Authorities Civil Works Ecosystem Restoration Policy. Engineer Regulation 1165-2-501. 30 September 1999

6 Department of the Army, U.S. Army Corps of Engineers. Water Resources Policies and Authorities Ecosystem Restoration Supporting Policy Information. Engineer Pamphlet 1165-2-502.. 30 September 1999

7 Department of the Army. U.S. Army Corps of Engineers. Planning Planning Guidance Notebook. Engineer Regulation 1105-2-100. 22 April 2000.

beyond the goal of ecosystem restoration, the use of the term “enhancement” is rarely appropriate in Corps documents.[8]

As stated in our 2016 Surfrider Letter[9], to the USACE, Surfrider generally supports ecosystem enhancement, except in the current Study. Detailed reasons for this are provided in the 2016 Surfrider Letter.

While USACE guidelines allow and encourage ecosystem restoration, they prohibit ecosystem improvement or enhancement. The USACE should revisit the Study to eliminate ecosystem enhancement alternatives and re-insert the water circulation, tidal circulation, and water clarity goals and objectives. 11-1

The USACE should re-analyze alternatives under the assumption that water column and sandy bottom habitats have value. By preemptively excluding these habitats, the Draft Report directly caused breakwater alternatives to fail in the alternatives comparison. According to CEQA, the Draft Report must analyze a range of alternatives. Alternatives must be feasible and capable of meeting most of the basic project objectives while avoiding or substantially lessening project impacts.[10] 11-2

By excluding critical habitats, Surfrider is concerned the USACE is changing the scope of the project to better meet the desired results of the analysis. Another way of saying it is the USACE modified their scope of work to favor certain alternatives and exclude other alternatives. Sadly, this approach is all too common in planning and engineering, but more importantly this violates the intent of CEQA/NEPA. Omitting reasonable and practicable alternatives not only undermines bedrock environmental laws, but the USACE has missed a critical aspect of NEPA by not clearly explaining why omitted alternatives are not reasonable (or prudent or practicable), and provide thorough analysis and details as to why alternatives were not selected.[11] 11-3

.

Detailed Comments

The following comments are in reference to specific pages in the Draft Report and associated appendices.

Page xi. Line 24-29, Figures ES-1, ES-2. Page 4-3, Lines 7-14. If the local sponsor is the City of Long Beach, why does the Project Area include Seal Beach and Anaheim Bay? Is it expected that the local sponsor would build a project for another city? If there is a good reason to include waters off Seal Beach in the Project area, then why doesn’t 11-4 11-5

8 Appendices C & E. Department of the Army. U.S. Army Corps of Engineers. Planning Planning Guidance Notebook. Engineer Regulation 1105-2-100. 22 April 2000.

9 Surfrider Foundation, Long Beach Chapter. To Mr. Naeem Siddiqui. Subject: East San Pedro Bay Ecosystem Restoration Feasibility Study, April 26, 2016

10 CEQA Guidelines §15126.6; 40 C.F.R. §§1502.13-14.

11 31 NEPA Regulations, 40 C.F.R. § 1502.14.

the Project Area extend through Cabrillo Beach. Why is the Study Area larger than the Project Area? Why does the Study Area include regions outside of the local sponsor's jurisdiction? 11-6 11-7

Page xi, Lines 32-36; Page 2-1, Lines 28-31. We strongly object to the removal of water circulation, tidal circulation, and water clarity from the list of project goals and objectives. These were in early versions of the goals and objectives from April 2016. Water quality is specifically stated as a desirable component of ecosystem structure in the USACE Planning Guidance Notebook from 2000. 11-8

Page xi, Line 37. The 1996 USACE Planning Manual[12] excludes enhancement of ecosystems or "improve aquatic ecosystem". This Study purpose violates Corps guidance. 11-9

Page xiii, Lines 1-12. The stated CEQA objectives for the Study are overly narrow, inconsistent with the Study purpose, developed in collaboration with the local sponsor (City of Long Beach), and foreordain selection of an ecosystem enhancement alternative over ecosystem restoration alternative. 11-10

Page xiii, Lines 30-33. It states that measures were filtered using P&G 1983. How can this be since those 1983 Principles and Guidelines only considered National Economic Development (NED) guidelines but did not include National Ecosystem Restoration (NER) guidelines, which are the basis of any ecosystem restoration study? 11-11

Page xiii, Lines 35 – 41. Why was sandy bottom habitat excluded from the habitat measures By excluding this habitat the Draft Report directly cause all breakwater alternatives to fail in alternatives comparison. 11-12

Page xiv, Lines 15, 16. This is a circular argument. There were no habitat benefits from breakwater reconfiguration since the habitats that would benefit from breakwater reconfiguration were removed from the listed scope of work early on in the Study, We believe that wave driven sandy bottom habitats, which do have value, were removed after the breakwater alternatives were found to be difficult. 11-13

Page xiv, Lines 39-40. Page 4-62, Line 20. Why were the positive navigation benefits of breakwater reconfiguration, as discussed in page 4 of the 2016 Surfrider Letter excluded from the Draft Report? The Breakwater as it currently exists, is a hazard to small craft navigation. It is a common occurrence for small craft to lose propulsion outside the Breakwater and drift onto the rocks. This has resulted in countless rescue operations by the Coast Guard, Lifeguards, and Vessel Assist. These incidents have resulted in damage to the craft, injury, and death. If the crest of the Breakwater were removed to a depth sufficient for vessels to pass over, they would not flounder on the Breakwater. Reconfiguration of the breakwater would be a significant benefit to navigation and this should be considered. Navigation in US Waters is one of the key missions of the USACE. 11-14

Page xv, Page xxi, line 2, Table ES-1, b. Page 4-6, Line 1 & 2. Page 4-35, Line 23 - 25. By definition, intertidal requires the habitat to be exposed to both water and air through

12 Planning Manual by Charles E. Yoe, Ph.D., Principal, The Greeley-Polhemus Group, Inc. and Kenneth D. Orth, U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources, November 1996 IWR Report 96-R-21.

tidal action from time to time. Reefs below -20' MLLW are not intertidal, they are subtidal. The lowest recorded tide in LA Outer Harbor was -2.73‘ MLLW in December 1933. Reef crests below this elevation (stated to be -3’ MLLW to -10’MLLW on Page 4-35) are subtidal. 11-15

Page xvi, Lines 23 & 24; Page xxiv, line 23. There is a good likelihood that the proposed reefs will cause shoreline erosion. There is extensive literature on subtidal, shore-unconnected reefs that were intended for salient development that actually caused shoreline erosion in their lee. One such artificial reef had this exact problem in Long Beach in the 1970’s. 11-16

Page 1-8 line 4. The Long Beach City Council approved a motion to begin working with the USACE on the Breakwater effort in 2005. 11-17

Page 1-10 line 8. Which constraints limit alternatives to the Project Area? Long Beach is likely not interested in paying for a project in San Pedro or Seal Beach, so why were they included in the Study Area and Project Areas? 11-18 11-19

Page 1-10, line 14. San Pedro Bay extends from San Pedro to Huntington Beach as defined by NOAA charts 18749 and 18746. The Bay off of the shores of Long Beach is central San Pedro Bay, but more commonly referred to as Long Beach Outer Harbor. East San Pedro Bay is Seal Beach and Huntington Beach. 11-20

Page 1-10, Lines 15, 16. The Project Area also includes Seal Beach, Anaheim Bay, and offshore of Surfside, which really should not be included in the Project Area 11-21

Page 1-10, Lines 8-9. What “practical constraints” exclude restoration in other parts of the Study Area? There have been restoration projects in Western San Pedro Bay in the past such as the Salinas de San Pedro Salt Marsh. There are restoration opportunities at Cabrillo Beach and along the Los Angeles Breakwater as well. If the constraint is that the local sponsor, City of Long Beach, would not likely pay for a project in San Pedro, then why include San Pedro in the Study Area at all? 11-22 11-23

Page 1-11, Lines 5-6.It is stated that “Western San Pedro Bay does not offer large scale habitat restoration opportunities due to existing Port of Long Beach and Port of Los Angeles infrastructure and heavy vessel traffic.” This is an unsupported opinion. Of course there are spaces for restoration opportunities inside and outside the Los Angeles Breakwater and in Cabrillo Beach (both inside and outside the breakwater). This is not a reason for excluding Western San Pedro Bay from the Project Area. Instead it is clear that this justification was developed as a way to exclude Western San Pedro Bay, keeping the Project Area near Long Beach, who are the local project sponsor. Also, this is part of a larger effort to extend the Study Area out to areas that have historically had more traditional high value habitats that could be imported thus making ecosystem enhancement look like ecosystem restoration and skirting USACE guidelines. 11-24 11-25

Page 2-2, Lines 7-13. The kelp beds shown and discussed are outside the Study Area. Is there evidence of kelp beds historically existing within the Study Area? 11-26

Page 2-2, Lines 18-20. Show evidence of rocky reef areas within the Study Area or Project Area. 11-27

Pages 2-2 and 2-3. Show evidence of all proposed habitat to be "restored" in the Study Area and Project Area including eelgrass, oyster beds, etc.… These ecosystems should have historically existed in natural conditions and have been subsequently degraded, to quality for restoration under P&G 1996 guidelines. 11-28

Page 2-4, line 2. There are opportunities to restore water quality, sediment quality, wave mixing, benthic habitats, but these are not listed. Why aren't they listed? 11-29

Page 2-5, Lines 2, 3. Habitats listed in planning objectives have not been shown in the document to have existed historically and been degraded in either the Project Area or Study Area. 11-30

Page 2-5, Lines 23-37. Why are the constraints absolute? Can't some of the impacts to constraining resources be addressed through mitigation? By defining these constraints as being not mitigatable the Draft Report is scoping away any breakwater alternatives without reason. Is there an USACE guideline that states no mitigation is accepted for NER analysis? According to Page 6-22, Line 25, mitigation is provided for other accepted alternatives, but for some reason it is not allowed for the impacts stated on Page 2-5, Lines 23-37. 11-31 11-32

Page 2-7, Line 3, Figure 2-1. The figure shows giant kelp historically existing in the vicinity of the Study Area, but not in the Study Area. How can it be restored to the Study Area if it didn't exist there historically? If it did exist, please show evidence. 11-33

Page 3-16, Line 6, 7. Yes, "Benthic organisms are an important component of the food web and are indicators of environmental quality", so why were they excluded from ecosystem habitat restoration measures? 11-34

Page 4-3, Line 30. Since the project is bringing new habitats into the Project Area from outside the Project Area, the project is applying enhancement methods, not restoration methods. 11-35

Page 4-3, Line 33. Sandy bottom habitats were excluded for practical and technical reasons. What are those practical and technical reasons? Is one because modifying the breakwater would be expensive and difficult? If so, that is not a reason to exclude the measure, according to the NER analysis; that should just impact the relative value of the measure as compared to other measures. 11-36

Page 4-4, Line 7. Page 4-8, Lines 7 & 8. By focusing on only enhancing high value, complex, and scarce habitats, and pre-emptively excluding sandy bottom habitats, the Draft Report subverts USACE NER guidelines which dictate that the measures should be compared on their restored habitat value and relative costs. According to Page 4-4, Lines 1 and 2, the water column and muddy bottom habitats have value, even though they are degraded. Presumably the value would increase if they were restored. The approach taken in the Draft Report uses is a circular logic that excludes sandy bottom habitat from consideration then states that it fails the alternatives comparison due to that exclusion. It also falls under the practice of scoping away alternatives that seem undesirable for other, non-related reasons. 11-37

Page 4-8, Line 20. All "ecosystem enhancement" alternatives should score 1 since they do not meet the primary Study objective of "ecosystem restoration." 11-38

Page 4-15, Line 40. We disagree with the characterization that changes to the breakwater will only have a minor effect on the time a particle remains in the ESPB. According to the surface flows in Appendix A-1, Figure 5.2 (Release 1 & 3), and Figure 5.4 (Release 1 & 2), removal of the breakwater clearly reduced the duration that the particle remained in ESPB. From the figures, it not possible to determine how much this duration is reduced. Some indication of residence time would be helpful. 11-39

Page 4-26, Line 3. Can't read labels in Figure 4-6. Please re-do. 11-40

Page 4-30. Line 27. Does the habitat evaluation modeling that concludes zero AAHU's for breakwater alternatives include the increased rocky bottom habitat resulting from removing the top of the breakwater, exposing rocky reef, or the improved water quality resulting from breakwater removal? We know from Army Corps Guidance[13] that "Water quality is an important component of ecosystem structure, and good water quality is generally integral to healthy functioning ecosystems." 11-41

Page 4-35, Line 29 should read "The multifunctional reefs could reduce or increase shoreline erosion rates and provide incidental coastal storm damage protection or increase storm damage. Also see page xvi, Lines 23 & 24. 11-42

Page 4-59, Line 8. Why does figure show the breakwater lowered to ground level? Has anybody suggested that this would be desirable or beneficial? The level shown in the 2016 Surfrider Letter removes the top 30 feet below MLLW or to a level beneficial for giant kelp habitat growth. 11-43

4-62, Line 42. In the year 2000, when the Surfrider Foundation sued Carnival Cruise Lines over their environmental impact report, the settlement stated that Carnival would not object to breakwater reconfiguration. Thus any expenses to Carnival resulting from breakwater reconfiguration would be assumed by Carnival and are not a concern of the USACE. 11-44

Page 4-63, Line 24, 25. The USACE assertion that "relocation of Navy operations to alternative sites would be cost prohibitive and unlikely to be supported due to public opposition" is illogical and an unsupported opinion. Currently, the Navy transfers potentially dangerous explosives at the explosives anchorage, which is approximately 2.5 miles from homes, schools, and businesses in Long Beach. A reasonable assumption would be that residents would greatly prefer moving the danger further away from their homes. Relocating the explosives anchorage to the lee of the Middle Breakwater in the Port of Long Beach would greatly reduce danger to residents, while restricting some port operations once per year. This would be a greater expense to the Port, but it's easy to see that residents would think it is a reasonable cost paid by the Navy and Port of Long Beach in support of national security and greater safety to the public. 11-45

13 Department of the Army, U.S. Army Corps of Engineers. Water Resources Policies and Authorities Ecosystem Restoration Supporting Policy Information. Engineer Pamphlet 1165-2-502.. 30 September 1999.

Page 8-1, Line 10. The USACE performed extensive public outreach for the Study and the effort is greatly appreciated by the Surfrider Foundation. 11-46

Page 8-2, Lines 10 & 11. Of course the constraints that were used to exclude breakwater alternatives were designed to preemptively exclude those reasonable and practicable alternatives. For example, there is no need to have the constraints be absolute, where mitigation could be used to overcome the constraints. See comment about Page 2-5, Lines 23-37, above. 11-51 11-47

Page 8-2, Lines 12 – 21. We disagree with the arguments made in this section. See discussion on pages 2, 3, 4, 5, and 6 of this comment letter (above). 11-48

Page 8-2, Line 16 & 17. The USACE states that the "intent is not to "restore what may have historically existed within the exact footprint of East San Pedro Bay." We disagree and put forth that their intent should be to restore what historically existed within the exact footprint of East San Pedro Bay. A geographic footprint is key to understanding ecosystem restoration, since the ecosystems occur in specific areas. It is so important that the USACE included specific reference to both the undisturbed area and the restored area, in their definition of ecosystem restoration. In their definition there is no indication that these areas are different from one another. 11-49

> The objective of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes to the landscape and hydrology. Indicators of success would include the presence of a large variety of native plants and animals, the ability of the area to sustain larger numbers of certain indicator species or more biologically desirable species, and the ability of the restored area to continue to function and produce the desired outputs with a minimum of continuing human intervention[7].

A simple definition of restoration is to "restore some thing." If one were restoring a chair, the chair would be that thing. It would include historical features of the chair and exclude anything that is not the chair. Restoration would occur to only the chair and nothing else. Other furniture in the room would definitely not be included. In our Study example, what is that thing? If the thing is ecosystems in the Project Area, restoration should be limited to ecosystems historically existing within the Project Area and any restoration would take place within the exact footprint of the Project Area. If the thing is ecosystems in the Study Area, ecosystems historically occurring within the Study Area could be restored, but this also would allow for projects anywhere in the Study Area. This is problematic since Long Beach isn't likely to pay for projects in Cabrillo or the Port of Los Angeles. The same argument applies to the Southern California Bight. Clearly ecosystems in the Study Area and the Southern California Bight are not the thing being restored, and ecosystems in the Project Area are the thing. 11-50

Lines 17-19 The USACE states that the intent is to "restore ecological functions associated with high value habitat within the San Pedro Bay to support overall biodiversity and ecological health for marine populations within the Southern California Bight." The stated reason for these two geographic limits is that the Project Areas is within the San Pedro Bay and the San Pedro Bay is within the SCB (Page xi, Line 25). 11-51

By the same logic, one could propose to restore ecological functions associated with high value habitat within the Pacific Ocean to support overall biodiversity and ecological health for marine populations within the World. On the face of it, this sentence seems ridiculous, but this is the exact reasoning and spatial rules that the USACE used in their boundaries. This could result in attempting to importing species that never existed in the Project Area from locations in the Mediterranean Sea. This ridiculous proposal could lead to importing invasive species, which is clearly not the intent. This simple exercise points out the irrationality of the USACE's argument. 11-51

Appendix A

Page 1-1, Lines 8-18. It appears the only water quality analysis that was performed was within the EFDC model. It does not appear that improvements to water quality from increased aeration resulting from increased breaking waves associated with the breakwater alternatives were considered. Aeration is a good source of dissolved oxygen which is essential for aquatic life. Please include water aeration impacts to water quality in the Study. 11-52

Page 5-5, Line 3, Page 7-28, Line 1. Agreed that initial results of reef impacts to shoreline erosion are highly preliminary. Contrary to expectations, low crested reefs (MLLW and below) have caused erosion in their lee due to ponding of water in the lee of the reef lee and induced lateral currents. This has occurred in a test reef in Long Beach in the 1970's and is explained well in recent numerical models. 11-53

Page 5-8, Lines 11-13. See previous comment. Experience has shown that low crested reefs often lead to increased erosion in their lee. This would make a perched beach for eelgrass growth unlikely. 11-54

Page 5-13, Lines 17-19. As discussed on Page 8 of the 2016 Surfrider Letter another benefit of the training wall would be to protect downtown infrastructure from wave activity. 11-55

Page 6-5 & 6-6. Would the surface layer salinity and total suspended solids graphics show greater contrast between inner harbor and outside the Long Beach Breakwater if a later time was chosen for display? For example, "Peak Ebb" occurs close to hour 3.5 in Figure 6-10. Would greater contrast show if the model had more time to run with a graphic showing the lower tide slack tide near hour 4.5? This is important as it would validate the model to the aerial photographs showing high suspended sediment concentrations inside the breakwater and lower ones outside the breakwater after rainfall events (Google Earth 1/2005, 10/2012, 6/2016, 12/2017, and 3/2018). 11-56 11-57

Appendix A-1, Pages 30 – 35. Why aren't 2-D spatial plots showing salinity and total suspended solids shown for the scenarios like they are for the existing conditions in Figures 4.3 and 4.4? Beyond particle tracing graphs, the 2D spatial plots would be useful in determining effectiveness of breakwater modifications on tidal circulation and water clarity. They would also be useful to validate the obvious suspended particle flow through Queen's Gate shown in Google Earth aerial photos taken on 1/05, 10/12, 6/16, 12/17, and 3/18. 11-58

Appendix A-1, Figures 5.2 through 5.7. Since it acknowledged in the main report that the LA River and San Gabriel Rivers are the greatest sources of pollution in the ESPB, it seems like release locations D, E, and F are less helpful, and more variety of graphs showing release points near the river mouths would have been useful. While there is nothing wrong with release locations D, E, and F, if there is limited space in the report, more focus should be spent on the more important situations. The same goes for bottom layer flows, since highly polluted fresh water flows from the rivers stay mostly in the surface layer. 11-59

Appendix A-1, top of Figure 5.1 and Page 61 first paragraph and Figure 5.3 Surface Layer Wet Event. According to Figure 5.1, the tracer tracking analysis simulated rainfall flow through the Los Angeles River but had no rainfall input from the San Gabriel River. In Figure 5.3, the surface layer wet event simulation looks like there is flow through the San Gabriel River. Which is it? If there is not flow through the San Gabriel River, please re-run the model with more realistic flows from both rivers. 11-60

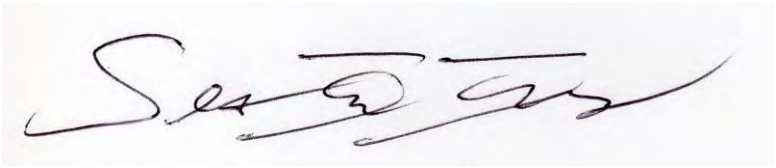
Closing

We sincerely desire the USACE to change direction of the Study to more accurately adhere to USACE guidelines and CEQA/NEPA regulations that focus on ecosystem restoration. 11-61 Specifically habitat examples from outside the Project Area should not be considered for import to the Project Area within the confines of the Study. 11-62 We would like to see water circulation, tidal circulation, and water clarity returned to the project goals as well as inclusion of the possibility of mitigation, where needed. 11-63 We would like to see wave driven sandy bottom habitat included in the habitat analysis and carried through the alternatives comparison.

Attached to this document is a hired expert opinion by Craig Jones, Ph.D., of Integral Consulting Incorporated. We concur with the statements provided in this document. 11-64

We look forward to working with the USACE and our local Study sponsor, the City of Long Beach, on this very exciting and promising project. Feel free to contact me any time to discuss this letter or any topic associated with the Study.

Sincerely,



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Cc: Mayor Robert Garcia, City of Long Beach
Tom Modica, Acting City Manager, City of Long Beach
Sona Coffee, Chair, Sustainable City Commission, City of Long Beach
Clayton Heard, Office of Congressman Alan Lowenthal, CA-47
California Assemblymember Patrick O'Donnell
Angela Howe, Legal Director, Surfrider Foundation
Stefanie Sekich-Quinn, Coastal Preservation Manager, Surfrider Foundation
Executive Committee, Surfrider Foundation, Long Beach Chapter
Craig Jones, Integral Consulting Inc.

Attachment: East San Pedro Bay Ecosystem Restoration Study Draft IFR Review Comments from Craig Jones, Ph.D., Integral Consulting Inc

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MEMORANDUM

To:	U.S. Army Corps of Engineers, Los Angeles District Attn: Naeem A. Siddiqui
From:	Craig Jones, Ph.D., Integral Consulting Inc.
Date:	1/27/2020
Subject:	East San Pedro Bay Ecosystem Restoration Study Draft IFR - Review Comments

I, Craig A. Jones, Ph.D., am presenting the attached expert review comments on the East San Pedro Bay Ecosystem Restoration Project for consideration by U.S. Army Corps of Engineers. (USACE). I am an ocean and environmental engineer with over 20 years of experience in developing and executing engineering and science projects for government agencies and the private sector to characterize offshore environmental sites. My experience includes riverine, lacustrine, estuarine, and coastal processes involving hydrodynamics, waves, sediment, and contaminant transport.

The City of Long Beach (City) has been working with the USACE since 2010 to advance a feasibility study to restore the East San Pedro Bay. My understanding is that the East San Pedro Bay Ecosystem Restoration Study is the first open ocean ecosystem restoration study to be conducted by the USACE under their feasibility study guidelines. Generally, the goals of the project are to restore aquatic habitat of sufficient quality and quantity to support diverse resident and migratory species. Additionally, there is a goal to improve water circulation sufficient to support and sustain aquatic habitat within East San Pedro Bay (ESPB). My review is focused on the adequacy of the feasibility study in evaluating habitats, their relationship to natural processes in ESPB, and measures for restoration of those habitats. 12-1

The USACE has completed a Draft Integrated Feasibility Report (IFR), which includes an Environmental Impact Statement/Environmental Impact Report for the

ESPB Ecosystem Restoration Feasibility Study [1]. The Draft Report is available for public review through January 27, 2020. Following the close of the public review period the USACE and the City will prepare a Final Report, incorporating all comments received. In the attached review, the ESPB restoration goals are examined, habitats that have been identified are reviewed, and the alternatives are reviewed. A summary of review findings is presented at the end.

Project Goals

The project was conceived when the City requested federal partnership from the USACE to address the aquatic ecosystem restoration opportunities within ESPB. Under Section 206 of the Water Resources Development Act of 1996 the U.S. Army Corps of Engineers is granted the authority to undertake restoration projects in aquatic ecosystems such as the ESPB. The USACE evaluates restoration projects that benefit the environment through restoring, improving, or protecting overall aquatic habitat. The USACE entered a partnership with the City to conduct the IFR study and supporting work.

The USACE Planning guidance notebook [2] provides specific objectives for restoration projects. Specifically, the guidance defines:

> *The objectives of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition.* ***Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes*** *to the landscape and hydrology. Indicators of success would include the presence of a large variety of native plants and animals, the ability of the area to sustain larger numbers of certain indicator species or more biologically desirable species, and the ability of the restored area to continue to function and produce the desired outputs with a minimum of continuing human intervention.*

As stated above, the overall intent of restoration is to partially or fully reestablish a more natural condition which would occur in the area in the absence of humans (bold statement above). Pursuant to this, the ecosystem restoration study should include examination of the naturally occurring ecosystem in the ESPB project area, problems contributing to the ecosystem degradation, and of means for ecosystem

12-2

restoration. The USACE guidance and objectives for restoration inform the basis of the review herein.

In the IFR [1], the overall project goal for the ESPB restoration is:

> *Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the SCB within the Proposed Project Area of ESPB.*

Leading to the specific USACE ESPB restoration planning objective:

> *Restore and support the sustained functioning of imperiled aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within ESPB during the period of analysis (50 years)*

The USACE identified key restoration opportunities within the ESPB focusing on high value and degraded habitats. These opportunities include leveraging existing open and undeveloped areas in the project area available for restoration to provide ecosystem functions and increased biodiversity in ESPB within the regional setting of the Southern California Bight (SCB). Multiple opportunities were identified for kelp, wetland, rocky intertidal, and sandy island habitat.

As will be discussed below, these opportunities and alternatives do not focus on key habitats that are present within the ESPB prior to human changes and are still present in the system today, such as sandy beach, sandy intertidal, and sandy subtidal habitats. Furthermore, the IFR overall weights high-value habitat within the entire SCB, but the weighting of all SCB habitats doesn't adequately evaluate the habitat dominant in the original ESPB natural system (primarily sand). A significant change in the system habitat composition is generally termed habitat enhancement. Enhancement incorporates ecosystem features, that while perhaps high value, were not historically significant in the project area. Since the primary goal of USACE guidance is, "to restore degraded ecosystem … to a less degraded, more natural condition," the IFR project goals to increased habitat biodiversity and ecosystem value based on evaluation of the entire SCB is more accurately an enhancement than a restoration of ESPB.

12-3

12-4

12-5

It is widely acknowledged that the USACE alternatives had to incorporate a number of planning constraints and considerations including:

- Avoid negative impacts to U.S. Navy's operations including activities in support of national security and other missions.
- Do not significantly reduce operational capacity for the ports, THUMS oil extraction islands or other existing maritime operations.
- Do not allow for infilling any of the energy island borrow pits located within the ESPB boundary.

These constraints pose significant barriers to the restoration of ESPB to conditions prior to human change; however, striving for those conditions should be a primary objective of the restoration alternatives and their evaluation. 12-6

Project Setting

The SCB extends more than 370 miles from Point Conception (USA) to Punta Banda (Mexico) and supports some of the most diverse and highly productive coastal ecosystems in the U.S. The SCB is a dynamic region where the cold California Current flows south to mix with the warm north flowing Davidson Counter-current [3]. Overall, it is agreed that the ESPB restoration represents an unparalleled opportunity to support a unique and ecologically productive part of the Pacific Ocean. Pursuant to this, it is important to understand and evaluate the habitats through the historic context of what a sub-region of the SCB, such as the ESPB, naturally supported. Without an understanding of the natural baseline habitat, any restoration or enhancement activities risk unintended consequences.

Figure 1 illustrates the USACE defined project and study areas. The ESPB project encompasses the semi-enclosed bay/estuary offshore of Long Beach from the Los Angeles River to Seal Beach. The project area today includes a wide array of subtidal and intertidal habitats. The focus of the project is to restore scarce coastal and marine habitat types that have been lost or imperiled due to port development, urbanization, and associated activities within the project area [1]. In contrast to the ESPB project area, the overall study area encompasses a much larger region extending west past the Port of Los Angeles to the point Fermin Lighthouse. The range of habitats naturally supported in the study and project areas prior to development differ. The study area habitats significantly varied due to the transition in coastal geomorphology from a cliff backed shoreline to the west to

open sandy beach to the east. The ESBP project area coastline was primarily sandy beach with inland wetlands/coastal lagoons.

Figure 1. Project and study area as defined by the USACE (IFR, 2019).

In the IFR kelp, rocky reef, coastal wetlands, and other habitat types have been identified in SCB as supporting diverse resident and migratory species within the region. Identified ecosystem stresses to the area have included loss of historic coastal wetlands and sensitive marine habitat areas with associated nursery, reproductive, and other ecological functions; and reduced abundance and biodiversity of marine populations as a result of habitat loss. The identified stresses to the ecosystems are human induced including coastal and offshore development resulting in a loss of kelp extents, rocky reef, wetlands, and eelgrass. Sandy intertidal is not included in the IFR habitat discussion. 12-7

The region around the Palos Verdes Peninsula has lost over half of the kelp habitat resulting in substantial fish biomass decreases. As seen in Figure 2, the stressed kelp habitats are in rocky cliff backed shoreline regions along the Peninsula. The cliff backed shoreline is common to geomorphic regions supporting kelp habitat along the California coast. The regions of kelp habitat loss, while tragic for the overall SCB, are not located within the study or project areas. The IFR does not address that this highly valued habitat targeted for restoration was not of significance historically in the ESPB project area. It is important to assess the potential for the unintended consequences of restoring a kelp habitat that was not naturally occurring in the project area. 12-8 12-9 12-10

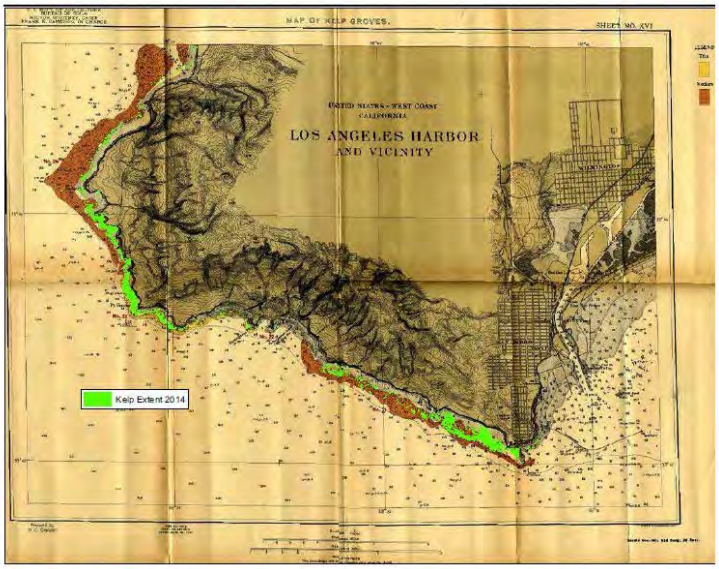


Figure 2. Kelp loss from historic (brown) to current (green) extents.

According to the IFR, wetlands in the San Pedro Bay historically accounted for 80% of all wetland habitat in southern California. Construction of infrastructure (e.g., breakwaters) and filling of wetlands during the development of the ports and harbor severely decreased existing wetland and sandy coastal habitat quantity and quality. The human induced stresses to ecosystem functions continue to this day. The wetland habitat has been reduced by 93% due to human changes to the system [1]. As seen in Figure 3, the vast majority of wetland habitat has been filled or transitioned to port and harbor subtidal waters. Unfortunately, given the constraints in the project area, there is limited opportunity to restore wetland habitat.

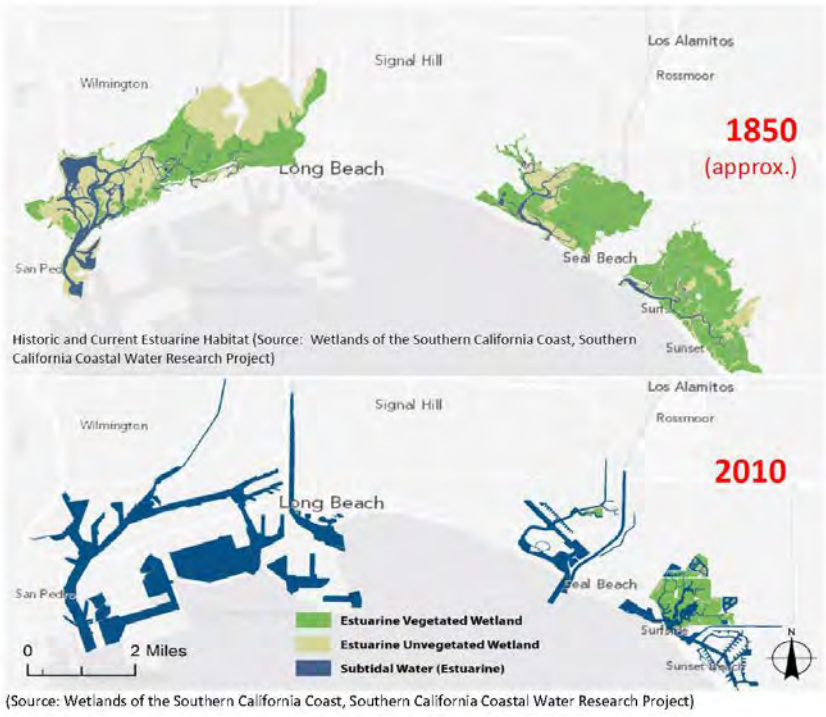


Figure 3. Historic and current estuarine habitat in San Pedro Bay region.

What is clear in Figure 3 and available 19th century maps is that the ESPB project area was dominated by sandy coast. Wide, sandy beaches concentrated adjacent to river mouths or where features retain sand (e.g., headlands) are a common, yet sensitive, geomorphic and habitat feature in southern California [4, 5]. Beaches are an invaluable ecological, social, economic, and cultural resource in southern California. Favorable weather and ocean conditions, combined with the high population density of the region, have resulted in these beaches becoming the most popular recreation destination.

The sandy beaches are a key coastal habitat that is has been highly vulnerable to human induced change[1]. The Coastal Conservancy has noted that over 60% of beaches statewide are threatened. Sediment transport is a key process that provides critical support for the health of beaches. The Los Angeles and San Gabriel Rivers have been disrupted due to development resulting in loss of annual sand sized sediment load to the project area beaches. Sediment deposits within the region are

[1] https://data.cnra.ca.gov/dataset/41afe0c6-3471-4a9b-85ed-2a6e3380f197/resource/42611842-269f-4a7c-815c-06687741474b/download/scmpa-24-final-report.pdf

no longer replenished with fresh, clean, coarse sands on an ongoing basis. In addition, presence of structures (e.g., breakwaters) further disrupt sediment transport and the wave dynamics responsible for maintaining these beaches. Presently, beach nourishment is required to sustain this valuable ecologic, social, and human resource in ESPB making the sandy beaches an important habitat to consider in any restoration study.

The subtidal sand, intertidal swash zone, and upper beach are critical components of the sandy beaches that are not included in the IFR. While the upper beach is generally above the intertidal, except during large storm events, it is an important component of a complete coastal habitat evaluation. As noted in the IFR study, sandy islands, a proxy for beach habitat, are a scarce habitat for threatened and endangered shorebirds.

Overall, the IFR assesses and values multiple habitats throughout and outside of the study area. Unfortunately, some of these habitats were not naturally dominant in the project area and a key habitat in the specific project area, sandy beaches, are not specifically included in the study. While the study aims to enhance ecosystem features that did not naturally exist in the project area, it omits important habitat associated with a sandy coast that is important both historically and present day. 12-11

Alternatives Evaluation

The USACE performed a comprehensive formulation of alternatives based on stakeholder input. Habitat restoration measures were screened according to USACE evaluation criteria including effectiveness, efficiency, and acceptability metrics. Habitat measures included kelp, rocky reef, eelgrass, wetland, oyster reef, and sandy island. Additional restoration measures included evaluating breakwater modifications. As discussed, the omission of sandy beach habitat represents a significant omission in any complete assessment of habitat measures. Therefore, measures such as breakwater modifications that support sandy habitats overall, were not linked to any habitat unit. While the sandy island habitat provides similar ecosystem services, restoration of existing sand habitat by breakwater modification is not evaluated. This deficiency will be discussed further below. 12-12 12-13

Generally breakwater modifications, either lowering, notching, or removal, allow more for wave energy and circulation in the project area similar to the historic

natural system [1]. With breakwater modification, the USACE modeling found that there were significant wave height increases from existing conditions. The wave height increases result in increases of downtime for maritime operations in the area. Coincident with the wave height increases, the IFR found that fine sediment would be eroded in favor of coarse sand sediment. The increased wave action would also result in shoreline configuration changes and possible widening zones of erosion. The habitat unit (HU) score for the breakwater modifications were deemed to be zero. The breakwater modifications were concluded as the highest cost with zero restoration benefit.

The evaluation of the breakwater removal did not include any scoring of the restorative benefits to the natural sandy bottom and beach habitats. The removal of fine sediment in favor of coarse sediment benthos is restorative to the historic ESPB ecosystem; however, the HU score was zero for these restoration activities. 12-14

Furthermore, the decreased flushing time (e.g., particle residence time) evaluated in the IFF improves water quality and circulation that is beneficial to all of the habitats being evaluated. By not scoring the range ecosystem benefits, the IFR prematurely screens out breakwater modifications. 12-15

The Southern California Coastal Bay Ecosystem Model habitat model used for the IFR considers the entire SCB. The metrics/goals of increasing total habitat area, diversity, and connectivity are therefore scored for a much larger region than the project area. As discussed previously, the inclusion of habitat outside of the project area provides inequitable habitat values for habitat not naturally occurring in the project. 12-16

Alternative 8 is the only alternative carried forward to the final array that incorporates any sandy habitat through the sandy islands. As stated in the IFR, the habitat is valuable for threatened and endangered shorebirds. Also, Alternative 8 gains the most restored and enhanced acreage over the largest number of sensitive habitat types. However, Alternative 8 is screened out. Alternative 4a, the final selected alternative and primarily achieves enhancement of kelp, intertidal, and rocky reef habitat that was not dominant in ESPB before human change to the system. Alternative 4a has no restoration of the dominant existing sandy habitat. While the IFR states that the study avoids valuing one type of habitat over another, the historic sandy habitats are not equitably evaluated in the study. 12-17

The scoring systems used in the IFR does not account for all of the process linkages across measures and metrics. For example, the breakwater removal measures are not linked to benefits to other habitats through the support of healthy benthos and water quality. Furthermore, the IFR does not assess the potential consequences of significantly increasing the acreage of new habitat. Increased kelp and rocky intertidal habitat could reduce circulation and negatively impact water quality in the region. These new habitats could also decrease water clarity and sediment sizes at the beach which would result in degradation of a substantial recreational resource. The IFR must include a full assessment of the potential negative consequences of increasing the quantity of new habitat in the area before selecting an alternative.

12-18

12-19

Summary

While the IFR presents a comprehensive evaluation of restoration feasibility in ESPB, the opportunities and alternatives assessed do not focus on key habitat that was present prior to human changes, is still present, and stressed today (e.g., sandy beach, sandy intertidal, and sandy subtidal habitats). The significant change in the system habitat composition resulting from Alternative 4a is generally termed habitat enhancement. Since the primary goal of USACE guidance is, "to restore degraded ecosystem … to a less degraded, more natural condition," the IFR project goals to increased habitat biodiversity and ecosystem value based on evaluation of the entire SCB is more accurately an enhancement than a restoration of ESPB. Furthermore, the IFR does not examine the consequences of expanding new habitats in the ESPB.

12-20

12-21

The review of the IFR highlights several key concerns:

- The range of habitats naturally supported in the study and project areas prior to human development are different. The study area habitats significantly varied due to the transition in coastal geomorphology from a cliff backed shoreline to the west to open sandy beach to the east. The ESBP project area coastline was primarily sandy beach with inland wetlands/coastal lagoons.
- The subtidal sand, intertidal swash zone, and upper beach are critical habitats locally that are not included in the IFR evaluation.

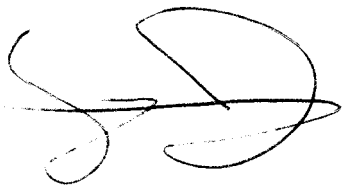
12-22

12-23

- While the study aims to enhance ecosystem features that did not naturally exist in the project area, it omits habitat associated with a sandy coast that is important both historically and present day. 12-24
- Without an understanding of the natural baseline habitat in ESPB, any restoration or enhancement activities risk being ecologically incompatible and risk unintended consequences. 12-25
- By not scoring all ecosystem restoration benefits, such as support of sandy habitat and circulation, the IFR prematurely excludes reasonable and practicable breakwater modifications. 12-26
- While the IFR states that the study avoids valuing one type of habitat over another, the historic sandy habitats are not equitably evaluated in the study. 12-27
- The IFR must include a full assessment of the potential negative consequences of increasing the quantity of new habitat. 12-28

We appreciate this opportunity to provide the USACE with this review. Please let me know if you need any further information.

Sincerely,



Craig A. Jones, Ph.D.

Principal Marine Scientist

References

[1] U.S. Army Corps of Engineers, 2019. EAST SAN PEDRO ECOSYSTEM RESTORATION STUDY CITY OF LONG BEACH, CALIFORNIA. DRAFT INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT. U.S. Army Corps of Engineers, Los Angeles District. November 2019.

[2] U.S. Army Corps of Engineers, Planning guidance notebook, ER 1105-2-100, U.S. Army Corps of Engineers, Washington, D.C., 2000.

[3] Hickey, B.M., 1979. The California current system—hypotheses and facts. Progress in Oceanography, 8(4), pp.191-279.

[4] Flick, R.E., 1993. "The Myth and Reality of Southern California Beaches", Shore & Beach, Vol.61, No. 3, July 1993, pp. 3-13.

[5] Everts, Craig H., and C. Eldon, 2000. "Beach Retention Structures and Wide Sandy Beaches in Southern California", Shore & Beach, Vol.68, No. 3, July 2000, pp. 11-22.

SURFRIDER FOUNDATION
LONG BEACH

January 8, 2020

Colonel Aaron Barta
62nd Commander
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd.
Los Angeles, CA 90017

Subject: The East San Pedro Bay Ecosystem Restoration Feasibility Study Draft Report Review Comments

Back in 2016, the U.S. Army Corps of Engineers agreed to study ecosystem restoration with goals of improving water quality and water circulation. After the study was initiated, it seems that the Army Corps discovered this is difficult. What was delivered in the Draft Report[1] released in November 2019 is not ecosystem restoration, but ecosystem enhancement without any water quality or water circulation improvements. The Army Corps performed the old bait & switch on the East San Pedro Bay Ecosystem Restoration Feasibility Study. They offered a Rolls Royce and delivered a Hyundai. 13-1

The Army Corps should revisit the study to eliminate ecosystem enhancement alternatives and re-insert the water quality and water circulation goals and objectives. 13-2

1 East San Pedro Bay Ecosystem Restoration Feasibility Study, City of Long Beach, CA, Draft Integrated Feasibility Report and Environmental Impact Statement/ Environmental Impact Report. November 2019. Study Purpose, Executive Summary, page xi.

What was Offered

1. Ecosystem Restoration as defined by Army Corps[2],[3],[4]
    a. The objective of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes to the landscape and hydrology[5].
2. Improve water circulation to support and sustain aquatic habitat within East San Pedro Bay[6],[7]
3. Improve physical conditions that support high quality habitat & healthy biodiversity by: Increasing tidal circulation, Increasing water clarity[8]

What Was Delivered

1. Ecosystem Enhancement as defined by Army Corps
    a. Enhancement now implies making the habitat better for some species than it would have been naturally in the absence of human intervention. Since this goes beyond the goal of ecosystem restoration, the use of the term "enhancement" is rarely appropriate in Corps documents.[9] 13-3
2. Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the SBC within the Proposed Project Area of ESPB 13-4
    a. i.e. import high value habitats from the SBC (Southern California Bight running from Point Conception to Mexico border) into the ESPB (East San Pedro Bay Project Area).
3. Water quality and water circulation were dropped from goals and objectives, thus do not appear in proposed alternatives. 13-5

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2 Department of the Army U.S. Army Corps of Engineers. Water Resources Policies and Authorities, Digest of Water Resources Policies and Authorities. Engineer Pamphlet 1165-2-1. July 30, 1999.

3 Department of the Army, U.S. Army Corps of Engineers. Water Resources Policies and Authorities Civil Works Ecosystem Restoration Policy. Engineer Regulation 1165-2-501. 30 September 1999

4 Department of the Army, U.S. Army Corps of Engineers. Water Resources Policies and Authorities Ecosystem Restoration Supporting Policy Information. Engineer Pamphlet 1165-2-502.. 30 September 1999

5 Department of the Army. U.S. Army Corps of Engineers. Planning Planning Guidance Notebook. Engineer Regulation 1105-2-100. 22 April 2000.

6 Study Goal & Objectives. East San Pedro Bay Ecosystem Restoration Feasibility Study, U.S. Army Corps of Engineers, Los Angeles District, Public Scoping Meeting, April 7, 2016, Bixby Community Center, Long Beach

7 Objectives, City of Long Beach East San Pedro Bay Ecosystem Restoration Feasibility Study, Community Scoping Meeting –Thursday April 7, 2016, Bixby Park Community Center, Long Beach

8 Study Opportunities. East San Pedro Bay Ecosystem Restoration Feasibility Study, U.S. Army Corps of Engineers, Los Angeles District, Public Scoping Meeting, April 7, 2016, Bixby Community Center, Long Beach

9 Appendices C & E. Department of the Army. U.S. Army Corps of Engineers. Planning Planning Guidance Notebook. Engineer Regulation 1105-2-100. 22 April 2000.

Closing

We want a study that logically and honestly evaluates the project following Army Corps guidance and agreed upon goals and objectives. If it is determined that the Army Corps cannot provide a project that satisfies those criteria, then they should say so. They should not modify their criteria in order to find any project whatsoever. 13-6

See Table of Signatories below

Cc:

Mayor Robert Garcia, City of Long Beach, 411 West Ocean Blvd, 11th Floor Long Beach, California 90802. mayor@longbeach.gov.

Tom Modica, Acting City Manager, City of Long Beach, 411 W. Ocean Blvd. Long Beach, CA 90802. Tom.modica@longbeach.gov

U.S. Army Corps of Engineers, Los Angeles District, CESPL-PDR-N, ATTN: Naeem A. Siddiqui, 915 Wilshire Boulevard, Suite 930, Los Angeles, California 90017-3489. ESPB@usace.army.mil "*East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments*"

Table of Signatories

Name	Signature	e-mail address
NINA WHITSETT		[redacted]
Seamus Innes		
Chad Franklin		
BILL HILLBURG		
Takin Khorram		
Mick Attardo		
Andrea WEHRAUCH		
Kay Chau		
John Contreras		
Brad Zell		
JEMMPON ZEA		
Ava Zell		
CHRIS CASEY		
Eric seel		
John Seel		
Bryce Leary		
Gayla Berkefelt		
Ryan Lum		
RYAN DALY		
Nick Cabezas		
clayton Heard		
Robb Russell		
Emiko Innes		

From: JAZ KANER (jazkaner@gmail.com) Sent You a Personal Message
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date: Monday, January 13, 2020 2:13:26 PM

Dear Naeem A. Siddiqui,

Dear Naeem A. Siddiqui,

Thank you for considering my comments on the East San Pedro Ecosystem Restoration Feasibility Study Draft IFR.

Back in 2016, the US Army Corps agreed to study ecosystem restoration, water quality and water circulation improvements. What was delivered in the Draft Report that was released in November 2019 is not ecosystem restoration, but ecosystem enhancement without any notable water quality improvements. That is not consistent with Army Corps guidelines or with the 2016 promise of ecosystem restoration with goals of improving water quality and water circulation.

Please revisit this study and include options that will result in true ecosystem restoration and help alleviate stated water quality and circulation issues in the Bay, as originally intended. 14-1

Sincerely,

JAZ KANER


This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Surfrider. If you need more information, please contact Michelle Kremer at Surfrider at mkremer@surfrider.org or (949) 492-8170.

From: JENNIFER ALLYN
To: SPL, ESPB
Subject: [Non-DoD Source] "East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments."
Date: Monday, December 02, 2019 9:37:43 AM

Hi,

I am a longtime resident of Long Beach and live and for the last 15 years I have been following the battle of the breakwater. As a beach lover and surfer, I initially thought the idea of bringing back surf to a wonderful idea. However, after extensive reading and a better understanding of what was entailed and what was at risk, I changed my mind. As my concern over climate change and the environment grew, I cannot in good conscious support any alteration to the breakwater. I have long found the absence of any mention of climate change in the breakwater coverage glaring. As other cities search to harden their coasts to increasingly violent storms and flooding, removing our protections seems as insane as what the city has done to Broadway by creating those bike lanes. 15-1

Reading the various plans, I became very excited about the scarce restoration habitat plan (aka plan 9 or plan 4). I became even more excited when I learned recently that the Army Corps of Engineers had selected the same plan I favored. I urge the City Council to select the Scarce Habitat Restoration Plan as their recommendation. It would be historic for the City to environmentally address the pollution problem and water quality issues through these solutions. I would be so proud of my city to be the site of such a project. It makes the 15 years and the money spent to study this issue well worth it.

Sincerely,

Jennifer Allyn
[redacted]

From: John Kindred
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Bay Ecosystem Restoration Feasibility Study
Date: Monday, December 02, 2019 10:53:03 AM

Hello,

My name is John Kindred, and I'm Co-Founder of Long Beach Environmental Alliance and belong to number other Environmental Organizations. With all that's going with Climate Change and Sea Level Rise, and will happen in the years to come, I agree the Breakwater should not come down. 16-1

I the past with the Breakwater we have had problems with Storms, King Tides and without it things would have been worse. So to take it down or remove any part of it would not do good but make things worse. Also as a past member of the Surfrider Long Beach Long Beach Chapter, I know they did not tell everything and was wrong in not being up front on everything or address their own information on Climate Change and Sea Level Rise, specially when it came to City of Long Beach. All-one have to do is look at what was said in past newspapers and meetings for this.

There are few things I would like see added to the (East San Pedro Bay Ecosystem Restoration Feasibility Study Report) is to hold meetings at all levels to cleanup the Bay. Long Beach Surfrider, has said a number of times we should take down the Breakwater to let all the trash out the Bay, by taking down the Breakwater but that would be 100% wrong.

What we should be doing from Community Organizations, Cities Level and with the Army Corps and find ways to keep Cities from dropping trash in the two rivers that feed into the Bay.

City of Long Beach does not do a good job when it comes to keeping trash out of its beaches, waterways, and two rivers that feed into the bay. This problem is not just City of Long Beach but also any other City that trash ends up in the two rivers to Long Beach.

If you can, on Monday, December 9, 2019, at the Aquarium of The Pacific, Public Community Meeting address this to get everyone to start talking?

Thank You,

John Kindred.

Long Beach City College & ASB Alumni, Neighborhood Leadership Program Alumni 2013, Long Beach Forward Alumni 2018,

Co-Founder Long Beach Environmental Alliance

Outreach Director: Long Beach Gray Panthers

Member: 350 Long Beach, Don't Waste Long Beach, Coalition for a Smoke Free Long Beach, Long Beach Transit Paratransit Advisory Committee, Cambodian Association of America-Cambodian Prevention Coalition, Citizen Climate Lobby, LiBRE About Long Beach Residents Empowered, Congress of California Seniors, California Alliance for Retired Americans,

Sent from Mail [redacted]

From: Dbooker4
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date: Tuesday, December 10, 2019 2:59:36 PM

Thank your team for doing all that detail work.

Comments:

1) If the objective is to improve the ecology and vitality of the study area, the opportunity space for constructing kelp, near shore, and rocky reefs should encompass the entire study area...not the original project area.

I understand the city's objective in eliminating the breakwater limited the original project to the eastern portion of the harbor. Going forward, that restriction should not apply. 17-1

Please find the time and money to explore other sitting options in the middle harbor and western harbor areas, before closing on the final version of this study.

2) Base line metrics for harbor vitality. The metrics identified are too limited. While the amount of surface kelp cover would seem important, the objective is to improve numbers and specifies of marine life. This isn't addressed. 17-2

Appendix D Table 1 identifies the species we would expect to see in the harbor. We need to count them before we start, and measure success by improvements in their number and type.

3) Native Kelp is currently in stress....impacting success of the proposed kelp areas. The Corp needs to reach out to experts on this one...both water temperature and explosion of purple urchin are to blame. 17-3

Dave Booker
LBM Boat Owners
Enviromental Officer

and avid sailboat racer...

From:	Dbooker4
To:	SPL, ESPB
Cc:	tom.mayes@lbmboa.org
Subject:	[Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date:	Tuesday, December 10, 2019 12:51:56 PM

on behalf of Long Beach Marina Boat Owners Association.

The draft report dismisses impacts to recreational boating within the project area. The proposed changes are in areas commonly used for kite surfing, wind surfing, and sailing.

18-1

Where construction would raise the minimum draft to 15 feet or less should be considered hazards to navigation

Exact placement of the restoration construction should including input from those that use that area heavily.

From: Dave Hall
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Bay Ecosystem Restoration Study
Date: Saturday, January 11, 2020 1:20:52 AM

Dear Corp of Engineers:

I wish to comment on the draft study for the East San Pedro Ecosystem Restoration plan.

Personally, I favor both the Tentatively Selected Plan which is the open-ocean ecosystem restoration plan and the Scarce Habitat Restoration Plan which would provide a sandy island for the California Least Tern, an endangered species. 19-1

I agree with the United States Fish and Wildlife Service that the Scarce Habitat Restoration Plan would benefit species displaced by the original construction of the Harbor itself in the Wilmington Lagoon many decades ago. 19-2

However, I can find no mention of two endangered species which use the rocky Breakwater as habitat. The Black Oystercatcher and Ruddy Turnstone are two species that currently benefit from the Breakwater.

I am also concerned about the effect of turbidity from construction on sight feeders such as the California Least Tern. 19-3

Please address these concerns.

Respectfully,
Dave Hall
[redacted]

From: Lesley Donovan
To: SPL, ESPB
Subject: [Non-DoD Source] Long Beach breakwater
Date: Sunday, January 19, 2020 2:36:57 PM

I only learned today that the Army Corps of Engineers recommended against altering the breakwater. I live at 1500 E. Ocean Blvd, directly on the beach and have long been unhappy with the water quality and lack of waves in Los Alamitos Beach/Bay. I have lived in California beach communities since 1957 and have never encountered dirtier sea water. I lived in Palos Verdes in the mid-sixties when the Army Corps dredged to add sand to the beach in Redondo Beach, enormously improving the experience of those using the area for swimming and surfing…and just reveling in the beauty of the extended shoreline. I've not read any evidence showing that altering the breakwater in Long Beach would be detrimental to sea life in any way that couldn't be remedied by other means. Los Alamitos Bay is nothing but a dirty, sludgy pond where we should have a seaside community. 20-1
Please keep me posted on these issues.
Sincerely,
Lesley Donovan

From: Alan Reid
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date: Sunday, January 19, 2020 4:27:13 PM

USACOE, Attn Naeem Siddiqui,

I am an interested party in the COE decision not to reconfigure the breakwater in East San Pedro Bay and I fully support that decision. I am a homeowner on the Peninsula Area of LB, have worked in the LA/LB Harbor since 1980 and since 1986 have been a Harbor Pilot for Jacobsen Pilots in LB.

I have 2 major concerns, the first being a homeowner in the affected area. Since I moved there in 2003 the City of L B has spent hundreds of thousands of dollars every year to reinforce the sand berm fronting the Peninsula. Even with this action approximately 12 times since then I have personally witnessed high tides and large swells overcoming this barrier and water flooding over portions of the wooden seawall and running down to the storm drains leaving sand, seaweed etc on the walkways. I am not aware of any homes being flooded but removing any part of the breakwater will surely add to this action and will certainly result in lawsuits by affected property owners in case of damage or flooding. For this reason alone, protection of infrastructure, the breakwater needs to be kept intact. 21-1

Second as a working harbor pilot having piloted over 16,000 ships in my careerI know only too well the effects of a large swell on both the port economy and infrastructure with hundreds of millions of dollars at stake if work is interrupted at the port. Damage to the existing breakwater in years past has cost tens of millions of dollars to repair. Spending more millions to reduce this protection is not only unwise but I believe, unprofessional. Not to mention the national security issue for the Seal Beach Naval Weapons Station explosive anchorage; which we also pilot navy ships in and out of as L B Pilots!

I see no advantage to anyone by cosidering the removal of any part of the breakwater. I do however see a huge downside to any part of removal. Not even counting the hundreds or thousands of individual lawsuits after the first damage, work stoppage or flooding as a result of a high tide and large swell not being minimized by the breakwater. I trust the COE also sees it this way and I reiterate that I fully suport this decision as the only prudent and realistic one.

Sincerely,

Captain Alan J Reid

Jacobsen Pilot Service, Inc
PO Box 32248
Long Beach, CA 90832-2248

Peninsula Homeowner,
[redacted]

From: John Z. Strong
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date: Wednesday, January 22, 2020 11:53:57 AM

Hello,

I would like to express my support of the Army Corp's decision to not modify the Long Beach Federal Breakwater. I am an avid surfer, sailor and professional mariner who works and lives in Long Beach. There is tremendous value that the breakwater brings to the City of Long Beach. The revenue generated by the Port of Long Beach through the Carnival Cruise Terminal and Pier J Container Terminal and the ideal sailing conditions demonstrated by the world class sailing regattas, including the Congressional Cup, far outweigh the loss of surfing, especially considering that surf beaches are within minutes in Seal and Huntington Beach. The argument of reducing pollution through dilution is misguided. The discussion driven by science has focused on reducing pollution at its source, up the LA River, which is a positive benefit. 22-1

I encourage the ACOE to hold firm against upcoming pressure by political and special interest groups.

Captain John Z. Strong

Vice President

Jacobsen Pilot Service

Cell 310 283-4478

Station 562 432-0664

From: Robert Lukowski
To: SPL, ESPB
Subject: [Non-DoD Source] USACE Alternative 4
Date: Wednesday, January 22, 2020 7:10:01 PM

I am writing to voice my support for your plan USACE Alternative 4.

I am a Long Beach coastal resident and I am very concerned about any plan to remove or alter the East Breakwater. I also work in the port of Long Beach as a pilot for Jacobsen Pilot Service. The breakwater serves multiple functions. Protecting the Seal Beach NWS,providing safe anchorage for commercial vessels,protecting the Oil Islands and the Carnival Cruise Terminal and protecting millions of dollars of coastal real estate. 23-1

Any plan to alter or remove the breakwater must be rejected.

The plan to improve marine habitat is very welcome news.

With the threat of rising sea levels perhaps the breakwater needs to be even higher and reinforced.

Sincerely,

Robert Lukowski

Sent from Mail [redacted] for Windows 10

From: Bob Blair
To: SPL, ESPB
Cc: Bob Blair
Subject: [Non-DoD Source] East San Pedro Bay breakwater
Date: Monday, January 27, 2020 11:07:39 AM

Hello,

My name is Bob Blair and I am a lifelong resident of the City of Long Beach. I was born at Long Beach Community Hospital in 1963.

I have learned to swim, play and work on the waters protected by our Federal Breakwater. I have also volunteered to work on the breakwater helping to maintain the Measured Mile instrumentation.

As a youth I learned to sail in the calm waters afforded to Alamitos Bay as result of the breakwater protecting the Peninsula in East Long Beach. Later in my youth I was a Long Beach Junior Lifeguard. We met at 38th place for a few summers then moved to the Peninsula near 56th place. These waters were then and for generations since are still protected by our Federal Breakwater.

As a result of family boating since birth I have worked and played on the waters protected by our Federal Breakwater.

I worked for 8 years for FOSS Maritime working as a tugboat captain. At FOSS we did ship assist work for ships moving into and out of the waters of the ports of Long Beach/Los Angels and Anaheim Bay. At FOSS Maritime we moved oil and water barges to ships safely anchored and moored behind the Federal Breakwater. I should also mention we moved ammunition barges for the US Navy between Anaheim Bay and the 'Kilo' (explosives)anchorage located within the 'Delta' anchorage which in turn is safely located behind the Federal Breakwater. These operations need the protection provided by our Federal Breakwater.

Since 2003, I have been a Harbor Pilot for Jacobsen Pilot Service here in the safe waters of the Port of Long Beach. The Federal Breakwater helps me and my coworkers to safely moore and move ships with the waters of the Port of Long Beach.
Not only is the breakwater now it's own habitat, it provides protection for various recreational boating activities such as 100's of days per year of sailing regattas and many different types of novice to professional boating activities. These events including the Congressional Cup Regatta, Catalina Ski Race, many small boat fishing tournaments, high school and college sailing events such as the Rose Bowl Regatta.
Carnival Cruise Line, the Shoreline Marina, Catalina Express and Catalina Classic Cruise lines all enjoy the protection of our Federal Breakwater.

Not many people have more days working or playing on and around the the waters of the Federal Breakwater than me.
If I can answer any questions please feel free to call me at (562) 706-3368.

24-1

As I write this letter I can see many benefits of our great Federal Breakwater as it sits today.
There are ships anchored safely inside, there is oil being pumped safely from the 4 oil islands, there is a Carnival ship moored at H-4, Catalina Express boats are transiting and mooring safely, the bait barge is safely conducting their Buisness with boats tying up and buying their bait, people are sailing small boats and families are walking on the beach with their kids without the fear of massive waves.
I can see homeowners on the Peninsula knowing that their homes are safely existing as result of the protection of our Federal Breakwater.

Please do not remove or modify our existing Federal Breakwater! Thank you

Regards,

Bob Blair

From: Chris Halsted
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date: Monday, January 27, 2020 1:42:59 PM

I am an interested party in the COE decision not to reconfigure the breakwater in East San Pedro Bay and I fully support that decision. I am a home owner in Naples and my family also has a home on the Peninsula. I also work as a boat Captain in the Port of Long Beach

I have 2 major concerns, the first being a homeowner in the affected area. Since My family built a home on the peninsula in 1995 the City of L B has spent Millions of dollars every year to reinforce the sand berm fronting the Peninsula. Even with this action since I have personally witnessed high tides and large swells overcoming this barrier and water flooding over portions of the wooden seawall and running down to the storm drains leaving sand, seaweed etc on the walkways. For this reason alone, protection of infrastructure, the breakwater needs to be kept intact. 25-1

I see no advantage to anyone by cosidering the removal of any part of the breakwater. I do however see a huge downside to any part of removal. Not even counting the hundreds or thousands of individual lawsuits after the first damage, work stoppage or flooding as a result of a high tide and large swell not being minimized by the breakwater. I trust the COE also sees it this way and I reiterate that I fully suport this decision as the only prudent and realistic one.

Sincerely,

Chris Halsted

From: Dan Kennedy
To: SPL, ESPB
Subject: [Non-DoD Source] East San Pedro Ecosystem Restoration Feasibility Study Draft IFR Review Comments
Date: Monday, January 27, 2020 3:55:29 PM

Hello,
I am a lifelong Long Beach Alamitos Bay resident. I have had the pleasure of enjoying both the bay and ocean sides of the peninsula due to the protection of the breakwall.

I have worked in the harbor for Jacobsen Pilot Service as a Pilot Boat Operator for the past 24 years. I have seen some tremendous storms throughout the years that I'm sure would've been devastating to the community of the Peninsula as well as the shipping terminals without the protection of the breakwall.

On a daily basis I frequent the peninsula to exercise on the beach. And for the last few years there's been a constant flow of trucks transporting sand from the Granada launch ramp area to the peninsula. As soon as we get a normal high tide with a weather system, a majority of the sand from the peninsula is washed away. I can only imagine what would happen to the Peninsula if there was no breakwater. 26-1

I've witnessed large storms that originate from a certain degree and angle, that enter the port through the East End of the breakwall and at the Long Beach Entrance, damage port roadways and part ship lines at some terminals. The removal of the breakwall would magnify this damage and slow, if not halt some port operations when a storm rolls through.

I fish the federal breakwall on a consistent basis and the amount of marine life out there is astounding. The removal of this habitat would make this area a wasteland. We don't have this sort of structure of this magnitude anywhere along the coast.

I strongly encourage that the breakwall remains intact for the benefit of marine life, beach front living and commerce.

Thank you for your time,

Dan Kennedy
Jacobsen Pilot Service
Pilot Boat Operations
562 400-3386 Cell
562 432-0664 Pilot Station

From: Preston Smith
To: SPL, ESPB
Cc: Harry Saltzgaver
Subject: [Non-DoD Source] Long Beach Breakwater
Date: Tuesday, January 28, 2020 8:06:02 PM

It is time for reality, the BREAKWATER WAS NOT BUILT FOR THE NAVY IN WWII it was built to protect property on the Peninsula and in Belmont Shores, which it does today. The false Navy story masks the important facts of heavy damage by the storms of the 1930's especially January 1939 and the Mexican hurricane September 29 1939. The sand was blocked at the mouth of the LA River by Breakwater II and the Port of Long Beach, causing sand starvation of the beaches. This caused the many sea walls along the beach we see today.The third section (and fourth never built) LB Breakwater was authorized in the 1930's before the war, the fleet moved to Hawaii in 1940, and the Breakwater was built 1946-1949 after the war.There are numerous pictures showing 50 Navy ships behind the first two sections in 1923 and 100 in 1933 , before the transfer to Hawaii. There was no need for more breakwater for the Navy but critical need to protect property, the real reason. Please use caution in planning reefs etc in San Pedro Bay Eastern Section. Oil Island Chafee altered currents that changed the beach at 72Pl on the Peninsula from quiet and relatively stable with a sandbar in front, to an erosion hotspot and needing a revetment that barely helps today. The currents in the Bay are very complex as the Port surge studies have showed.

27-1

Preston Smith
Sent from my iPad

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY INTEGRATED FEASIBILITY REPORT ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT

PUBLIC MEETING

December 9, 2019

3:00 p.m.

Joanna B. Brown, RPR, CRR, RMR CSR No. 8570
459116-1

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is shown here, and this is a typical plan view on the right and cross-section on the left for the open water rocky reefs; and the heights vary and the distribution between sand and rock allows for variation in nature.

The deeper water rocks would vary in height from 3 to 12 feet. The nearshore shoals, by the way, the rectangular shoals, they would be underwater, submerged, 3 to 10 feet apart.

So my last slide here, and then I'll turn it back over to Colonel Barta, is just to let you know that we are in compliance so far with our environmental coordination, conducting the required environmental compliance activities and planning to continue coordinating with the U.S. Fish and Wildlife Service and other federal and state resource agencies who, by the way, have all been part of our Habitat Technical Advisory Committee, and we are coordinating with our state SHPO and reaching out to the tribal organizations as part of our study.

So, with that, we are going to bring it home. Thank you.

COL. AARON BARTA: Thanks, Eileen.

So, again, to recap, we've completed the alternate evaluation and analysis, and now we are going to look at our Tentatively Selected Plan. Our next

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step is to compile all comments received, which we'll receive tonight or in writing by the 27th of January, and we will respond to each of the comments in our final report.

The Corps will hold an Agency Decision Milestone with senior leadership over at the Corps of Engineers to determine if changes are needed with the Tentatively Selected Plan.

The Long Beach City Council will consider the Recommended Plan for adoption and CEQA certification of the Environmental Impact Report. The study will then move forward to the finalized report in March of '21. The Corps then looks towards gaining concurrence and approval from the Chief of Engineers in August of '21, and then it will be forwarded to the Assistant Secretary of the Army for Civil Works for his consideration and approval of the Record of Decision.

At this time, authorization of the project is expected in 2022 with construction starting in 2027 and complete in 2030. All right.

So now we go to the most important part of the meeting, which is the public comments section. If you have not already turned in your blue card for comments and marked whether or not you would like to make comments, please, we'll collect these now. When you

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are called, I ask you to step up. There will a microphone around. The mic will be handed. I do ask that -- we will not provide feedback to the comments, but we will document them and report and respond to them in the final report.

We also ask that everybody is respectful of the three-minute time to allow enough time to be able to provide their input publicly for the record as well.

If you do not wish to speak today but want to provide comments, please take a comment card with you. It can be sent to the attention of Ed De Mesa on the card and the slide or by emailing it to the email that is shown on the slide as well.

In addition, there's a website listed on the slide that has the same link to the inbox for submitting email comments. Again, one final time after that, you will just prepare or inform the Corps of your feedback. So with that --

ED DEMESA: So we have the first speaker as Mr. Bob Blair.

BOB BLAIR: Good afternoon. My name is Bob Blair, a lifelong resident, born at Community Hospital. I'd like to thank the aquarium today. I have grown up on the waters of East San Pedro Bay, learned to swim at the Belmont pool, learned to sail at

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Leeway Sailing, and I'm a professional mariner at the Port of Long Beach. I've been working at the port 20 years, working at Jacobsen Pilot Service. We drive the ships down at the harbor. With respect to that, I worked at Ochsner [ph] for a time, a barge company. We moved bunker barges in and out of the harbor.

The breakwater is to provide a safe haven for visiting ships to bunker. Bunkering is when a large pump goes to the ships. Basically, the fuel dock comes to the ship as opposed to a car going to the station. So it's a great safe haven for visiting ships to conduct repairs, bunkers, diving, crew changes, et cetera.

With respect to what the colonel had asked for, my concerns are wave and swell activity inside the breakwater being protected; the effects on recreational motors, team fishing, diving, safe havens in the breakwater for the Naval operations and the daily anchorage that's a valuable national asset; erosion on the beaches being preserved and protected with the breakwater being maintained; property damage to homes on the peninsula. Any sort of reduction in the breakwater could cause more erosion there. Let's see. The oil islands being protected, they are important. Shoreline marina protected, marine harbor. They are

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all protected by the breakwater. That's vital to keep those businesses safe. And as a pilot, what we see is the ships being safely boarded and cargo operations being safely conducted, ships not being tossed around in swells or surge or stuff like that.

It still does actually happen with the breakwater in its present configuration, but anything less would make that worse. So we need the breakwater to protect and preserve that operation.

And I guess I question, do we need to do anything? Does the TSP that we have -- do we need to do that at all? Can we do nothing and save the lane? That's one of -- is that, like, Option 9?

So, anyways, thank you very much, and have a good day.

ED DEMESA: Thank you. Mr. Dave Booker.

DAVE BOOKER: Booker.

ED DEMESA: Booker.

DAVE BOOKER: Thank you. I am a director of the Long Beach Marina Boat Owners Association. So I want to apologize to our coastal pilots because they see me almost every Sunday and they are tooting their horn something crazy. Actually, they are pretty good recreational sailors. Saturdays and Sundays, I think they do a good job. One of the things I want to point

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out here is, in the way you wrote this study, I'm just going to ask that maybe you change a few words because you correctly account for five boats in this harbor that use this every week, and we have a number of organizations that are using that particular piece of water every week. And as we -- as we move forward and if you get funny with this, I would ask that you include siding. I'm assuming we could move some of those little things around to minimize the impact on recreational use of that facility or not.

29(a)

29(b)

I don't know to the degree that you actually studied where those current uses are, but there's some organizations and associated yacht clubs that still have three or four races every week in that -- every Saturday and every Sunday in that area.

29(c)

The other thing I want to point out is that if you come up above 15 feet in water depth, then we are going to create a hazard for recreational boaters. And those kelp fields, if they really are fit to be healthy the way you want them to be healthy, you should really recognize that those become no-flow zones for recreational boaters.

29(d)

It's kind of like the shoaling outside the Queen Mary. Every skipper has to discover that the sailboat he bought won't go over that tide. It has to

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get pulled out. These kelp fields are going to be the same way. All of the skippers are going to get into where the kelp fields are, and it will get caught in their rudders and their propellors, and the tow boat is going to have to come out, or the lifeguard is going to have to come out, or the sheriff is going to have to come out and pull them out. That's just what's going to happen. So I was asking, if we get that far, that we have the strength to work with the groups to actually cite each of those components.

29(d)

The other thing that I wanted to ask, understanding the political reality of how this whole thing came about, which was take the breakwater down 3 to 12 feet, the study really -- the study area and the project area are two different kinds of animals that I cannot see, for the life of me, why the kind of changes you are composing here on the east end of the breakwater can't be applied to the middle breakwater and all the way over to Cabrillo.

29(e)

The study area is correct, but the application of these solutions to build a more robust habitat is applied in a very narrow band. Thank you.

ED DEMESA: Colin Kelly.

COLIN KELLY: Hi. Good afternoon. I just want to thank everybody for being here. This is a

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really good turnout. I'm the Orange County Coastkeeper senior staff attorney. We do a lot of activities, including underwater restoration. So I've spoken to some of our restoration team about this and have a few comments on that as well, but the first question is -- or comment goes to Slide 24 in particular, which showed the wave-height chart with depths greater than a foot in areas where increased waves could occur with your model. That illustrates the effects of partial removal.

We just wondered if you would analyze the benefits that improved circulation could have to the East San Pedro Bay for water quality since that's one of the issues that I know the environmental groups are focused on, not only restoration, but improving water quality, oxygenation, things like that, in the San Pedro Bay; and if that wasn't considered, it probably should have been, in our opinion, considered as a benefit, a water-quality benefit and benefit to the city.

30(a)

I'm also a resident of Long Beach. An issue that we do have a lot of experience with are eelgrass and oyster restoration abilities and the benefits for emotion to those kinds of activities. We are doing a project in Newport right now sponsored by the state and

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federal government on a sea-level-rise mitigation due to eelgrass and oyster beds put together.

My experience with Long Beach and the peninsula with issues of erosion, that might be a perfect location to add oyster beds in addition to eelgrass beds as a possible restoration activity that would, in the long run, likely save the City money for not having to transport as much sand over to the peninsula. 30(b)

I would echo the last comments. I grew up a boater. I think, the location of the kelp beds, one of the issues is, as an environmental attorney, it really helps to get the boaters on your side. That is a glaring issue of putting kelp beds at the entrance of Alamitos Bay that I think the boaters welcome that being moved somewhere so it's not going to be a larger problem. 30(c)

If it's an issue of not a lot of migration because there's not adequate substrate and the kelp is not going to want to attach to sandy bottoms, I can totally see that; but I think that just needs to be explained a little bit better.

And I would also question, since it's so near some of the Naval facilities and where the Naval mooring is, that's going to be an issue, having the 30(d)

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vessels going over that, not that it would harm the vessel; but going over healthy kelp would maybe not be the best idea. 30(d)

A question as to how this might impact the City's preparation for the Olympics, if this is going to be completed in 2020, this will be an issue, generally a question, and I will leave it there since my time is up. Thank you. 30(e)

ED DEMESA: Chris Halsted. 31

CHRIS HALSTSED: Good afternoon. My name is Chris Halsted, a Long Beach resident in District 3, currently residing in Naples. My mother is a Long Beach Peninsula resident, and I'm also an employee in the Port of Long Beach, and I also work for Jacobson pilot. I'm a pilot operator, taking the captains out to and from the ships, so a pretty intimate knowledge of this. And I have two vested interests, family homes and my employment.

The biggest concern with the breakwater or any alteration with it is the current erosion and wave activity that we have right now. The City spends hundreds of thousands of dollars on sand relocation as it is down on the peninsula; and every day, sometimes seven days a week, sometimes 24 hours a day, if there's an upcoming storm or swell, there's trucks coming up 31(a)

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and down that peninsula, and they are unable to keep up with the erosion with the current configuration of the breakwater. 30(a)

With things like climate change and rising sea levels, why would we think of moving any sort of protection for those homes?

If anyone was down there last year, during winter storms, they had to make a makeshift plywood and two-by-fours down the boardwalk of the peninsula to help protect the homes.

So back with the water quality and things like that, I think the real problem and what really needs to be addressed is the L.A. River and the San Gabriel River. Until those are cleaned up, it's not going to do anything. You are just taking the pollution and moving it out to sea. You are putting it somewhere else. You guys remember the pictures from Seal Beach last year. They don't have a breakwater. After some serious storms, they had feet of debris and garbage on their beach, and it took them months to clean that up, and they don't have a breakwater. So fix the rivers, keep the breakwater, and protect the public homes. 31(b)

ED DEMESA: Michele Grubbs.

MICHELE GRUBBS: Good afternoon. My name is Michele Grubbs, and I'm with the Pacific Merchant

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Shipping Association, and we represent the marine terminal operations and ocean carriers calling at the ports. I'm also, in full disclosure, a resident of District 3. I live in Belmont Shore, and I also was born -- somebody else said they were born in Community Hospital. I was born in St. Mary's. So I've been a member of the Long Beach area for a long time.

Basically, I'm here on behalf of my company, who supports, by all who recorded their decisions, not to modify the East Long Beach breakwater because doing so is going to impact the operational capabilities of the port. I think we've heard other comments today clearly by the experts of Jacobson Pilot Service about how they need calm water to protect these vessels. I think what was mentioned also is that the vessels now in Long Beach, the large container vessels, the cruise vessels are being plugged into shoreline power, and so these huge electrical power cables are being plugged in. And so we cannot have any wave activity just for safety of the workers and safety of the vessels. 32

I think that we all know that the port is an economic engine of the city, one in five jobs, and it is very critical that we keep this economic engine. We support the Army Corps' analysis showing that the breakwater modifications resulted in no habitat value

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and modifications were insufficient in terms of costs per acre and restoration. Thank you.

ED DEMESA: Mr. Tom Jacobsen.

TOM JACOBSEN: Thank you for the nice presentation. I appreciate it. My name is Tom Jacobsen, president of Jacobsen Pilot Service. We have been piloting since 1924. We have been in operation 24 hours a day, seven days a week, since then. Every commercial ship that moves in and out of the port is required to have one of our pilots on board. That's a Coast Guard requirement. We provide all of those pilots. I first want to say that all of us at Jacobsen Pilot Service are pilot operators, even myself, and fully support the Army Corps' decision to not modify the East Long Beach breakwater. I've spoken many times and written letters about our professional concerns and our opposition to put any modifications to the breakwater. Letting more waves and more swells into the East Bay will have severe consequences on the port business, to Carnival Cruise Line, to the oil islands, ships and anchors, the marinas, and the homes on Belmont Peninsula.

For example, we pilot some of the largest ships in the world, the VLCCs at 69 feet draft, and we have minimal under-keel clearance. We can't have seas

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inside the breakwater. These ships have to be in calm waters. The container ships that we pilot are the largest also in the world. Some of them are 1,300 feet long, and when we make our turn into Pier J south, the ship has to turn or broadside to the seas. We need calm seas to make that happen.

Carnival Cruise Line every year, in the south swells, they break a lot of mooring lines. If we poke holes in the breakwater, they will be severely impacted. They would most likely deem this dock unsafe and move to L.A.

For ships coming to anchor, these ships need protected waters for bunkering, for loading supplies, changing out crew members, and doing repairs and maintenance. These things cannot be done in open ocean or outside the breakwater.

In August 2014, the swells from Hurricane Maria hit our coastline. We all have to be very thankful for the breakwater that we have. It protected the ports and Long Beach. The hurricane did not put holes in the middle breakwater and allowed a lot more swells coming in. We had seas break over the Naval Moles. I will include a link of a video into my letter to the Army Corps that I'll write, but we videoed the seas coming over the Naval Moles and

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hitting the backside of buildings in the middle harbor of Long Beach. So this is why we need the breakwater.

Again, we are fully supportive of your decision to not modify the breakwater. Thank you very much.

ED DEMESA: Mr. Kip Louttit.

KIP LOUTTIT: Good afternoon. I'm Captain Kip Louttit, executive director of Marine Exchange of Southern California, which operates the vessel traffic service for the ports of Los Angeles and Long Beach, and my comments today relate to this position and this mission of the exchange and stay within the limits of my three minutes.

Our ETS performs and functions that akin to air traffic control for aircraft, and we do it for ships. We have people that watch 24 hours a day, 7 days a week, 365 days a year, making sure that more than 28,000 movements per year are safe, secure, efficient, reliable, and environmentally sound. This includes all of the vessels arriving and departing and moving around the Los Angeles and Long Beach port complex.

Colonel, we too support the Corps of Engineer's decision not to modify the Eastern Long Beach Breakwater because doing so would

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significantly reduce the operational capacity of the ports, negatively impact the navigational channels, and acreages. Here's why. With respect to the navigational channels, many ships arriving at the Port of Long Beach have a very deep draft and are flattened and need calm waters to move around the water that they wouldn't be able to do if the east breakwater were removed or modified. We would see waves where there's presently flat and calm water; and the waves, if they are come running around and cause oil spills, some of these ships might take their business elsewhere. Others could arrive with less cargo so they have less draft.

But this would mean we'd need more ships to move the same amount of cargo, which would increase the amount of emissions into the air. Either of these alternatives is bad. When anchoring, many ships go directly to the dock to do their business. Then they leave and depart directly to sea, no problem. Other ships need to anchor to conduct their business for reasons such as waiting for their dock to become available to undergo an inspection, to change crew members, or something like that; and they can rock and roll in the open sea as they do in the anchorages off of Huntington.

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But there's a third category of ships that need the breakwater, and two good examples are bunkering and repairs. Repair work involves moving heavy equipment or engine parts by crane aboard the ship that would swing dangerously if the ships were to flatten in calm water. Refuge or bunkering -- this was mentioned before -- is bringing a barge alongside a ship, and then the barge and ship can bang into each other if there are waves. The ropes can stretch and jerk if the two are moving around, and most importantly, the fuel hoses might break, which is unsafe and increases the risk of an oil spill.

Repairs and refueling must be done in flat and calm water. Therefore, the ships sometimes anchor behind the east breakwater, and sometimes they anchor behind the middle breakwater. The problem, if you do the math -- and this is what the Marine Exchange does for a living -- there aren't enough anchorages through the middle breakwater to fit all the ships that anchor now behind the middle of the east breakwater. Therefore, if they can't do this business in our port complex, they are going to take that business elsewhere. And, presently, 1 in 9 jobs in the area is related to port activity.

We thankfully submit these letters with

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comments, and we support the Corps' decision to leave the breakwater there.

ED DEMESA: Thank you, sir.

Mr. Robert Ballew.

ROBERT BALLEW: I'm Bob Ballew. I'm an old-timer. I've been diving, fishing, and boating inshore and offshore for about 50 years now, and I would urge all of you to strongly oppose reduction or removal of the breakwater. It would be an environmental disaster for the wildlife, sea life that resides there in and around the breakwater. The breakwater is basically a giant reef, and it's had 45 years for the marine life to develop and grow; and if you take it down, you destroy the top level of bait fish that provide the food and the survival of all of the different types of marine life that gather there.

35

We are not opposed. I'm representing the voters and divers and so forth for the underwater part of this. All of us are familiar with climate change and what will happen as far as the flooding and erosion, but a lot of people have no idea what's underwater out there. And I have a handout here that describes some of the sea life that's available and lives in and around that area out there if anyone wants one. I'll put it on the table up here. We have no

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opposition to the restoration as it's described, but we do have a strong opposition to reduction and removal out there because you are just -- all it's going to do is destroy a lot of sea life to get some surfing waves, and I don't think it's worth the cost or the effort to do that.

We have concerns that the mayor and assemblymen and Assemblyman O'Donnell were greatly saddened by the Army Corps of engineer's opposition to removal of the breakwater, and I would like to commend them on using a common-sense approach on that issue. So, hopefully, all of you will oppose everything except the restoration part of it. Thank you.

ED DEMESA: Mr. John Kindred.

JOHN KINDRED: Thank you. I'm one of the co-founders of the Long Beach Environmental Alliance, and we work with a number of different organizations in Long Beach. Now, I've been a resident here off and on since the '60s when The Pike was around, and I've seen the change. There's been talk about seawalls, the plywood on the peninsula; but all you have to do is look at the pictures that were taken during storms and how the waves went through those plywoods into people's homes with the breakwater. So imagine what would happen without it. We have no idea how high sea-level

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36(a)

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rise is going to be or storm surge. We came out with the sea-level rise of 1 to 4 feet. Now I'm looking at digital -- double-digit numbers. We have no idea how high it's going to get or if our water, our current, is going to turn more warm than cold, and will hurricanes come up more towards our way, which will do more damage.

Also, too, we are one of the few organizations that go around and take pictures of our bus stops, our Blue Line, our streets, our storm drains, our beaches, and go out on a boat and see all of the junk out there in the water and up the L.A. River and San Gabriel.

36(b)

If we really care about the litter and pollution, we should hold every city, counting Long Beach, all the way up to the base of the mountains on both sides, accountable for their litter and make them pay for it.

Also, too, you can go online and look at the City's traffic record when it comes to giving out citations for litter. You got some sections for a whole year. Not one citation was given out. But we are known for parking tickets and street sweeping, which is about -- what? -- 60-some dollars, 70-some dollars a pop. Well, litter tickets start out at 200-something dollars up to around 2,000 or more. And

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when's the last time anybody has seen any education on prevention of litter and everything in this city?

We do a lot of talk about going green and litter and fighting stuff, but we do very little if you walk around and look at our streets. And we have that boom of the L.A. River. It doesn't do a good job. I've been out there and took pictures and videos after a storm, and you can't tell the boom was even there.

So we need to change. We have no idea what's coming, and it's going to cause other problems we haven't even thought about. We need to start to educate ourselves and start using common sense.

My mom always said "Common sense isn't so common all the time." And it's not just about me; it's about my son, my grandchildren, and my great-grandchildren now that I'm having. They are going to pay a real burden. Thank you.

ED DEMESA: I have a note here from Mr. Steven Marron, who wishes to speak.

STEVEN MARRON: Right here.

ED DEMESA: Thank you.

STEVEN MARRON: I feel like I'm the only minority here because I'm a surfer. So don't throw things at me or beat me up. Okay? I was a teacher in Long Beach for 36 of my 40 years, and first of all, I

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wouldn't want the breakwater to be modified if it were meaning that homes were going to be damaged. I'm a homeowner, and for most of us, our homes are the biggest investment of our lives. Having said that, if there could be a safe way to modify where homes, businesses, incomes, livelihoods, ships, and the port could be protected and we could provide something for every citizen, I would like to see, in some way, the low-cost, recreational opportunity or habitat, if you'll allow me, that was here prior to 1941, when Long Beach didn't attract good financial projects, but they attracted the most iconic architectural projects in Southern California.

Not all citizens can afford a boat, live in Long Beach, a boat slip, membership at either of the yacht clubs, or any of the swim clubs like Beach and others. If some kind of acceptable wave action could be allowed to return, a lot of the kids in the nine council districts could bicycle, skate, go down to the beach learn to swim, body surf, bodyboard, et cetera, because that could assist in low-cost opportunities that a lot of them can't right now.

Swimming, which happens at a beach, doesn't happen in Long Beach. We go in up to our knees and ankles because we get sick. I know this. I used to

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swim -- do laps around the buoys, and I got sick most of the time.

So, in summary, our biggest resource is our beach, and I just wish that everybody could work together to find a way to provide something for everybody that lives in this city. If we found a way to block wave action, perhaps we could find a way to restore it safely. Thank you for your time.

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ED DEMESA: I have Mr. Sal Ferrigno.

SAL FERRIGNO: Hello. I'm Sal Ferrigno with SSA Terminals. We operate three terminals in Long Beach, one of which is Pier J terminal that they mentioned a few times during the presentation. And I have to say, I'm pleased and support this latest proposal because you found a way to restore the ecosystem and protect places like our terminal. Those of you may not know, but our terminal, when there's a big south storm, our ship can move five to ten feet. Can you imagine longshoremen trying to load a container and take a container off a ship that's moving like this? It's not easy. And we deal with it because it's a handful of times a year.

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If we -- or if the break wall was compromised, I'll tell you now, that terminal would be shut down. It would be unsafe to work. And what the result of

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that would be to Long Beach is 25 percent of the containers that move through Long Beach move through Pier J terminal. Those would be gone. Whether they go to L.A. or --

What's happening now is Back East is killing us. They are taking volume from us. Canada is taking volume from us. We need to protect what we have. We currently employ around 20,000 annual jobs at Pier J. That's just on the ship. And if you look at -- those are direct jobs. The indirect jobs are hundreds of thousands of jobs. So, again, I'm very pleased to hear that the plans are not to compromise the break wall because compromising the break wall, again, I think it would be detrimental to the Port of Long Beach and the community because there will be a lot of jobs lost. Thank you.

COL. AARON BARTA: So thank you, everyone, for your comments. I'd like to take an opportunity to acknowledge and thank a representative from O'Donnell's office, Nicholas Cabeza. Thank you for the time to hear us and talk to us as well.

Are there any other blue comment cards that anybody would like to stand up and talk? Okay. If not, this concludes the first of our public forums. We do have staff from the Army Corps of Engineers standing

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY INTEGRATED FEASIBILITY REPORT ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT

PUBLIC MEETING

December 9, 2019

6:00 p.m.

Joanna B. Brown, RPR, CRR, RMR, CSR No. 8570
459116-2

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placed individually, maybe even with divers. So it's more costly than the kelp beds, which are just a single layer of push-off rock. So no maintenance is expected here. The near-shore rocky reefs, those were about 1,000 feet long under roughly 3 to 10 feet of water.

So, wrapping up, I just want to point out we are just in the middle of ongoing environmental coordination, and we are conducting all of the required compliance activities. So we are coordinating with Fish and Wildlife Service and other agencies who, for the most part, they were part of our Habitat Technical Advisory Committee. So they are familiar with the study from the beginning. And we've reached out to tribal organizations and state SHPO and will continue to do so. So, with that, I'm going to turn it back over to Colonel Barta, who is introducing us to the public comment period. Thank you.

COL. AARON BARTA: Thank you, Eileen. So, again, that was a really good review and just a reminder, this is a wonderful environmental project for the bay. So just a recap of where we were at again -- Eileen, kind of, hit it one more time; but we completed the alternative evaluation and analysis, and now we have a tentatively selected plan. Our next step is to compile all comments, and this is the beginning of the

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comment period.

The City of Long Beach city council will consider the recommended plan and CEQA certification and the Environmental Impact Report, and then we'll move to a finalized report around March of 2021. From there, we'll then look again for concurrence from the entire Corps of Engineers as well as the experts, and our goal is to have this submitted to the chief engineers in August of 2021 for his recommendation and signing to go forward to the ASA for civil works and eventually the OMB to Congress.

So we will now begin the open portion. So if you have not gotten a card and would like to have speaking or written comments, please raise your hand. I'll bring cards around. We will collect the cards, and then we will call, randomly, people up to speak. We are allotting three minutes for every public speaker.

If you represent a group and there are several of you from one group, we ask for you to have one or two representatives to be able to consolidate your group's ideas. That would make sure we have enough time for everybody to provide public comments before we run out of time in this facility as well.

If you do not want to have public comments and

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you have questions later, here are the websites and emails of which you can submit your comments. We will take comments again through the 27th of January for review. So, with that, are all the cards collected that need to be collected now?

ED DEMESA: I only have one that is turned in. Anyone else?

COL. AARON BARTA: All right, then.

ED DEMESA: Three, two, one. Jennifer Zeil.

JENNIFER ZEIL: My name is Jennifer Zeil, and I want to say thank you. There are so many terrific things in the report that I support -- I'm a resident of Long Beach -- rocky reefs, ecological restoration. But I don't feel that I could leave without saying one thing, and that is that it feels like, reading the report, that the quality of life of the people of Long Beach is suppressed by just the interest of the port, the military, and the oil infrastructure. And what we mean is, as we know as as the report outlines, the Long Beach breakwater traps all of that polluted water from very large, organized watersheds here in our near-shore environment.

And so I guess I'm disappointed that the breakwater options aren't deemed -- let's see. What was it deemed to be moved forward by the Corps to move

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Page 36

into the cost-benefit analysis?

It looks scary, but I'm asking you to please look at other alternates to mitigate those impacts to military so we can get clean water, so our kids can swim in the water in Long Beach, so that --

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And I think it is part of the Corps' -- not the mission, but it's not out of the Corps' scope of work to consider those human aspects of it because what's good for our kids is also good for the habitat that's there, for the sea kelp. If it's healthy water, it's healthy for that. So thank you. And thank you for the terrific -- you know, no matter what, we are going to get some good stuff.

COL. AARON BARTA: All right. This is your chance. Does anybody else have any comments they'd like to speak publicly?

All right. We will take your comments in writing, either tonight or in the future, through the 27th of January one more time. We do have staff here, my staff here from the Corps. So we'll stick around afterwards. If you have any more specific questions on the side, we'll be more than happy to at least hear your thoughts and provide some feedback. So thank you for coming tonight. I appreciate it.

-o0o-

US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: John Kindred

ORGANIZATION *(if applicable)*: Long Beach Environmental Alliance

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☑ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☑ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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Mr. Naeem Siddiqui, CESPL-PDR-Q
U.S. Army Corps of Engineers
NEPA Environmental Coordinator
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017-3849
Email: ESPB@usace.army.mil

COMMENTS

On Sea Levels
pullution
Storms

DATA REQUIRED BY THE PRIVACY ACT

AUTHORITY: 33 CFR 327

PRINCIPAL PURPOSE: Distributed at Public Meetings and Workshops to provide a record of attendees, and to develop a mailing list for future public meetings in keeping with the policy of USACE to conduct the Civil Works Program in an atmosphere of public understanding, trust and mutual cooperation. All interested individuals and agencies are to be informed and afforded an opportunity to be heard and their views considered in arriving at conclusions, decisions, and recommendations in the formulation of civil works proposals, plans, projects, and on the proposed uses of navigable waters.

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

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SPEAKER NAME *(please print)*: Robert Ballew

ORGANIZATION *(if applicable)*: fishermen, boaters, environmental

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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COMMENTS

Represent boaters / divers

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Capt Kip Louttit

ORGANIZATION *(if applicable)*: Marine Exchange of Southern California

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☑ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☑ YES ☐ NO

ADDRESS: [redacted]

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Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: TOM JACOBSEN

ORGANIZATION *(if applicable)*: JACOBSEN PILOT SERVICE

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Michele Grubbs

ORGANIZATION *(if applicable)*: Pacific Merchant Shipping Association PMSA

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☑ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☑ YES ☐ NO

ADDRESS: [redacted]

EMAIL:

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Chris Halsted

ORGANIZATION *(if applicable)*: _____

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Colin Kelly

ORGANIZATION *(if applicable)*: Orange County Coastkeeper

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☐ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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COMMENTS

Question Regarding incorporation of Oyster bed along w/ Eelgrass Restoration sites nearer the Peninsula. The near shore of the Peninsula suffers from significant erosion. Improving habitat which reduces erosion could offset the city's ongoing sand management costs and bring down the cost v. Benefit.

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Dave Booker

ORGANIZATION *(if applicable)*: LBM Boat Owners

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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COMMENTS

- Project Scope vs Study Scope
- Species to be monitored
- Impact on Boat Operators
- Next Steps

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Bob Blair

ORGANIZATION *(if applicable)*: Jacobsen Pilot Service

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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COMMENTS

- effects on operations

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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: SAL FERRIGNO

ORGANIZATION *(if applicable)*: SSA TERMINALS

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☐ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☐ YES ☐ NO

ADDRESS: _____

EMAIL: _____

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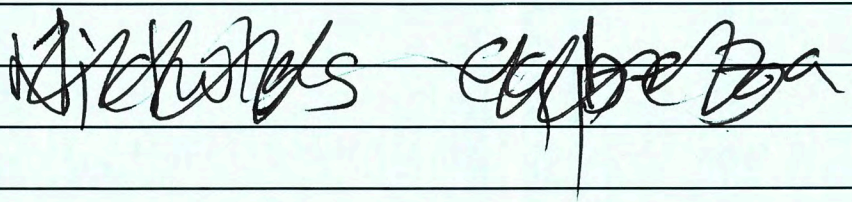
Los Angeles, CA 90017-3849
Email: ESPB@usace.army.mil

COMMENTS

SAL FERRIGNO



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US Army Corps of Engineers
Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Steve Marion

ORGANIZATION *(if applicable)*: retired teacher coach

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☐ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: _____

ORGANIZATION *(if applicable)*: _____

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☐ YES ☑ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? I'm already on it ☐ YES ☑ NO

ADDRESS: _____

EMAIL: _____

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COMMENTS

Have any tests/studies been done to see if Kelp will even grow
&/or do well in the areas designated on the maps?
Sea Surface Temperatures are increasing & Kelp Region wide
is very vulnerable to these changes. In one of the
stakeholder workshops I was in years ago my partner
& I suggested looking at whether or not holes could be added
at key locations of the Bottom of the breakwater, or even
tunnels underneath to ~~increase~~ allow colder waters to
enter the Bay without putting shorelines at risk. Finding ways to give th
planned Kelp access to cold water is key for their survival.

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Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: JENNIFER ZELL

ORGANIZATION *(if applicable)*: LNCA RESIDENT

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☒ YES ☐ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☐ YES ☐ NO

ADDRESS: _____

EMAIL: _____

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Los Angeles District

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION FEASIBILITY STUDY
PUBLIC MEETING COMMENT CARD
9 DECEMBER 2019

SPEAKER NAME *(please print)*: Eric Morgan

ORGANIZATION *(if applicable)*: Area Sportfishing Industry

WOULD YOU LIKE TO PROVIDE VERBAL COMMENTS AT THIS MEETING? ☐ YES ☒ NO

WOULD YOU LIKE TO BE ADDED TO OUR MAILING LIST? ☒ YES ☐ NO

ADDRESS: [redacted]

EMAIL: [redacted]

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COMMENTS

The area sportsfishing industry would like to think we've been good neighbors in being conscious in how we operate w/ respect to maintaining quality to the marine environs / wildlife.

We just want a "seat at the table" on how to keep areas accessible to us during and after the project takes place, particularly if Marine preserve designations are contemplated.

53

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Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Background:

In response to a directive from the California Coastal Commission, the Army Corp of Engineer team held a virtual meeting to obtain input on their Draft Project Report.

Eileen Takata from the Corp hosted the meeting and was professional and courteous through out.

The Corp's Draft project report passed a Consistency Determination by Coastal Commission on December 11. That report claims “Less than Significant Impact on Boaters”. This report lacked any discussion of the data used by the Corp to come to that conclusion. The large Boating Community of Long Beach takes exception.

The virtual meeting was attended by 85 boaters and heard from Yacht Club Flag Officers and Senior Boating Association Leaders representing boaters, many of whom had prepared discussion items.

Cleve Hardaker - Past President RBOC -

Recreational Boaters of California (RBOC)

RBOC is a state wide organization representing the interests of 600,000 California Boaters. Their focus is on proposed regulation – at the State and Federal level.

Follows is Cleve's presentation:

Kelp beds constructed in the vicinity of the very busy Alamitos Bay entrance will present serious hazards to the many recreational boaters and fishermen coming and going at all times of the day. At the very least, obstructions to the approach to Alamitos entrance will cause traffic density problems with reduced maneuvering room increasing the risk of vessel collisions. 54-1

Alamitos Bay is home to a large number of boats that come and go regularly. Many boaters and fishermen from all up and down the coast frequently enter the harbor.

Kelp consists of long, strong strands that can easily become wrapped in a boats propellor and can even cause engines to stall, rendering the boat disabled. 54-2

Kelp forest is not static. It grows and spreads, often in unpredictable directions.

Stormy weather, darkness and fog that drives sailors to seek refuge in a safe harbor also make it impossible to identify kelp forests and the peril of a stalled engine while approaching a rocky breakwater is extreme.

The problem is not limited to kelp beds. Kelp is constantly breaking loose and drifting away, sometimes in the form of large patties and the loose kelp is just as hazardous as kelp attached to a reef. 54-2

I offer a couple of direct examples of the situations that arise:

This from the operator of TowBoatUS in San Diego where extensive kelp beds grow off Point Loma and La Jolla.

Captain Rob
Special Operations Director
Big Bay Marine Services
TowboatUS San Diego

We have continual issues with boats stuck in kelp. I can say outboard, out drive and Jet boats hate

kelp and it is a problem to the boater sometimes an expensive problem.

This from a 2016 article in the Laguna Beach Independent Newspaper that relates an incident involving loose floating kelp.

In an interview Monday, lifeguard Chief Kevin Snow says, “they were in a perilous position,”

Boat owner Alberto Vumigo took his wife, daughter and infant baby out for a Sunday outing that turned treacherous when their 18-foot vessel lost power. Kelp ensnared the propeller of the outboard motor and the captain was unable to restart the engine.

Snow says wind and waves pushed the vessel onto rocks jutting from the water and in the surf-line.

Snow said, “they were very fortunate to get on the rock without anything happening.”

I would strongly suggest that the team who are designing the kelp reefs visit San Diego where I would be glad to take them out to observe the reality of kelp forest and boats.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Mike VanDyke - Co-Chair Long Beach Olympic Regatta

Mike is a long time Long Beach resident, sailor and a well connected member of LBYC. He has volunteered to assist the city in its Olympic bid, and is now helping with detail plans and finding resources required to put the City's best foot forward in the Olympic Regatta.

His presentation:

Good evening. I want to thank the core of engineers for their presentation tonight. My name is mike van dyke and I am a 4th generation long beach resident. I learned to sail on Alamitos Bay and the surrounding waters of long beach. I attended Texas A&M Maritime Academy and received my undergraduate degree in Maritime Administration. I also attended London City University's Cass Business school where I received my masters degree in Ship and Trade Finance. I spent the earlier years of my professional life working in the port of Long Beach in various roles.

I am currently the Rear Commodore of Alamitos Bay Yacht Club, and President of California International Sailing Association or CISA for short. CISA is a nonprofit organization dedicated to providing high level training to our youth sailors in preparation for high level international competition including the Olympics. We are proud to have our kids represent the united states in every Olympic since the early 1980. CISA holds our annual advance training clinic each year in Long Beach, due to the superb sailing conditions and quick, easy access to the outwaters.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

I am a Board member of Memorial Hospital Long Beach and also the President of The Children's Clinic, a federal qualified health center based in Long Beach that focuses of the underserved in the community. I am also a past commodore of Long Beach Yacht Club.

Tonight I am speaking to you as the co-chair of the Olympic Class Regatta. The Olympic Class Regatta will be held annually leading up the 2028 games. The purpose of the event is to train regatta personnel and allow athletes to sail on the Olympic courses and take advantage of our near perfect sailing conditions. Long Beach was selected again to host the yachting events when the IOC award LA the right to host the games in 2028. For those that remember, Long Beach was a bright spot in the 1984 games with perfect weather and winds for the yachting competition. 55-1

Leading up to the Olympics in 2028, there will be multiple World Championship Regattas held on the Olympic courses in Long Beach along with trial test events in 2026 and 2027 to ensure the success in 2028. Over the course of the next 7 years leading up to the Olympics, Long Beach will be hosting hundreds of sailors a year from around the globe as they train on our local waters along with their respective support groups. US Sailing, our national organizational body, is looking at setting up a permanent base here in Long Beach that would support US athletes not only before but well beyond 2028. Plans are being made now that will impact Long Beach both afloat and ashore for the games and beyond. 55-1

I along with everyone on this call, supports the effort to improve water quality and marine life. However, in reading the report and looking at the exhibits, it appears that the current plan will compromises safety in and around the entrance to Alamitos Bay and adjacent waters. Not only does it compromises safety, but conflicts with what was presented to the IOC as part of the bid to bring the Olympic Games to Los Angeles and Yachting back to Long Beach. I do think that with proper input from all stakeholders, a compromise can be reached, one that will help our environment, provide safe navigation, ensure the enjoyment of navigable waters for our recreational boaters, as well as enable us to continue to host World Class events in our waters by maintaining a safe and superb sailing venue. Long Beach is the regarded as the Aquatic Capital of the World. Please lets work together so we can preserve what is viewed by many as some of the best sailing conditions in the world. 55-2

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Todd Leutheuser - SoCal RBOC director – Member of LBYC

I am a 20+ year resident of Long Beach, a member of the Long Beach Yacht Club and boater who uses and races on Alamitos Bay between 50 and 75 days a year. In tonight's capacity he is the Vice President of the Recreational Boaters of California (RBOC) representing the Southern part of the state. Todd's geographic area of responsibility for the RBOC is the water ways of southern Los Angeles County.

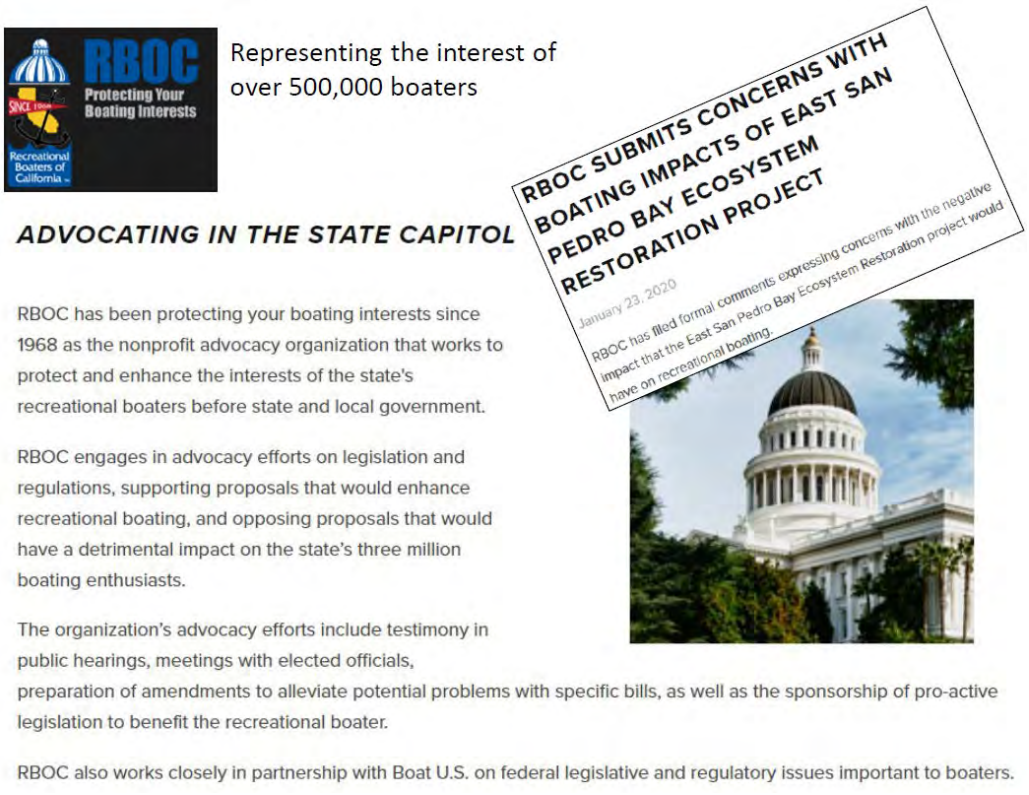
Eileen, I would like thank you for hosting this meeting as this is the first direct communication the RBOC or, to my knowledge, the boating community has had with the ACoE regarding this plan.

On January 23, 2020, the RBOC submitted a letter to Eduardo De Mesa, Planning Division Chief of the ACoE discussing concerns from the boating community regarding the ACoE plans. This letter was submitted within the ACoE's "public comment time line', and asked for two items:

1. RBOC request to be included as a stakeholder in any process
2. ACoE's Plan (Alternative 4A) be revised to ensure that the negative impacts on recreational boating are eliminated.

To date the ACoE has not responded to the letter.

(Slide #1)



To date, the plans and statements made by the ACoE have to do with what is going on under the water and little or no mention has been made a to what happens above the water. Moving forward, I want to ensure that the ACoE knows and understands what and how the Alamitos Bay is used by the boating community and the impacts kelp will have on recreational users.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

(Slide #2)

Alamitos Bay's Various Recreational Uses

As you can see in my slide that I put together, the bay is used daily by recreational boaters, kite boarders, outrigger canoe clubs and various other groups. The area is unique in that there is a large area that is protected by the breakwater which provides for relatively calm seas while still providing consistent afternoon breezes. The next slide is an excerpt from a 2014 article in the local newsper.

(Slide #3)

The GRUNION
Long Beach's Favorite Community News Source

By Tyler Hendrickson
Staff Writer
May 24, 2014

Long Beach Waters Tailor-Made For Burgeoning Kite Surfing

Acclaimed as the Aquatic Capital of America, it's no secret that Long Beach loves its water sports.

But it isn't simply a unidirectional relationship. In some cases, the sports themselves seem to love the city right back, finding a perfect home on the Long Beach shoreline.

One example is the sport of kitesurfing, which seems almost tailor-made for Belmont Shore. Thanks to calm waters, unique and ideal winds and plenty of room to maneuver, the location is impeccable for this emerging sport.

"Long Beach is probably one of the best areas in the world to learn the sport and to do it, because of the breakwater in the Belmont Shore area that creates a big flat open area that's safe for kiting," explained Bart Miller, a kitesurfing instructor and owner of SoCal Kitesurfing. "In combination with the winds that come in the afternoon and the open beach area they have for launching and landing, it's uniquely suited to kitesurfing."

Miller, 55, has been teaching the sport in Long Beach for the last five years, along with his crew of around 10 instructors, who are all International Kitesurfing Organization (IKO) certified. SoCal Kitesurfing is one of only a dozen IKO-certified schools in the U.S., and the only one in Southern California. Miller said kiters flock in from all over the area, from San Diego to Santa Barbara and inland as far as Las Vegas, to come kitesurf in Belmont Shore.

LET THE WIND DO THE WORK. Bart Miller skids across the ocean off of Granada Beach while his kite propels him along the water.

"Long Beach is an amazing place for kitesurfing, but it's very under recognized by people in the local area," said Miller, a Park City, Utah, native who moved to Huntington Beach two decades ago. "A pretty high percentage of people who kite are not from the area, they're either pilots here on layover or people travelling from Europe or people driving from long distances."

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

For those who haven't encountered kelp, or know the effects it can have on boaters, I took the liberty to illustrate the ACoE's plans with photographs the approximate location of the planned Kelp patties and near shore reefs will be located. Note the two pictures in the upper left and center show how kelp can disable boats. The lines from the large photos to the small pictures are the approximate location of the 12 -500' round kelp patties. Which happens to be located immediately outside the harbor entrance to Alamitos Bay as indicated by the two blue lines on the bottom right of this photo. This will pose a significant navigational threat to boaters. The upper right picture is from the beach adjacent to the location of the planned near shore reefs.

(Slide #4)

Army Corps of Engineer's Alamitos Bay Restoration Plan
Negatively Effects Water Sport Recreation Activities

Boater Safety is at Stake – The ACoE plans to plant 24 - 5 Acre (500' in diameter) Kelp patties in the navigable waterway entrance to the Alamitos Bay Harbor which is home to over 2,000 boats. The 120 acres of kelp development is a clear and present danger to one of the largest concentration of recreational boaters along the California coast line. When encountered by watercraft, kelp is one of the most dangerous, disabling factors to boaters. Near shore reefs will negatively affect the safety of kite surfers and beach goers.

I remember a news article about a kite surfer drowning in Alamitos Bay, so I took a few minutes and found the article about a kite surfer who drowned after getting tangled in his gear. From the article, it appears that he didn't have a kelp encounter, but the article illustrates the dangers of getting tangled in your gear or potentially, kelp. Show silde.

(Slide #5)

PRESS-TELEGRAM

NEWS

By LONG BEACH PRESS TELEGRAM | presstelegram@dfmdev.com |
PUBLISHED: September 9, 2007 at 12:00 a.m. | UPDATED: September 1, 2017 at 9:22 a.m.

By Hanna Chu
Staff writer

Body found off Belmont Shore identified

LONG BEACH – A body found in the waters near Belmont Shore was identified Sunday, authorities said.

Lifeguard boats pulled the lifeless body, which was found floating face-down, out of the water at about 4 p.m. Saturday, said Long Beach Fire Department Capt. Mike DuRee.
The man was found between Granada Avenue and Island Chaffee, with a harness that was attached to a kite, leading authorities to believe the man may was a kite surfer.

The victim was in full cardiac arrest and transported to a local hospital where he was declared dead, DuRee said.

The Los Angeles County Coroner's Office identified the body as 30-year-old Yam Poh Chua of Long Beach, said Investigator Betsy Magdaleno.

Police are treating the death as a drowning, said Long Beach Police Sgt. Dina Zapalski. An autopsy is pending.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

I also searched for and found the article that Cleve Hardaker referenced about the boater and his infant child getting fouled, disabled and beached because of the kelp off Laguna Beach. See Slide #6.

(Slide #6)

Laguna Beach Independent

Lifeguards Rescue Passengers from Disabled Boat

By **Andrea Adelson** - April 5, 2016

Laguna Beach lifeguards rescued four members of an Anaheim family who were on a disabled powerboat Sunday, April 3, when waves pushed it onto a shoreline reef in the early evening.

In an interview Monday, lifeguard Chief Kevin Snow says "they were in a perilous position," off of Heisler Park at Picnic Beach when lifeguards arrived.

Boat owner Alberto Vumigo took his wife, daughter and infant baby out for a Sunday outing that turned treacherous when their 18-foot vessel lost power. Kelp ensnared the propeller of the outboard motor and the captain was unable to restart the engine.

Snow says wind and waves pushed the vessel onto rocks jutting from the water and in the surfline.

Lifeguards rescued passengers from a boat taking on water near Heisler Park. Photo courtesy of LB Marine Safety Department.

Vumigo and his daughter, who were wearing life jackets, managed to get out of the boat that ran aground on the rocks. Rescuers slid the boat now taking on water off the rocks, through the surfline and into shore, allowing the two remaining passengers to return to land at the sand. Other guards assisted the boat owner and his daughter, stranded on the rocks, Snow said.

Snow said, "they were very fortunate to get on the rock without anything happening."

In conclusion, the ACoE needs to understand that Alamitos Bay is a tremendous asset for the region and has a very unique environment that provides safe passage to a 2,000 slip marina system and water based recreational activites with safety, wind and flat water. The ACoE plan 4A will negatively effect safety of boaters and water sports users. Going forward the boating community needs to be considered a stakeholder and we are willing to work with the ACoE in making their plan good for the environment and safe for the boating community.

Thank you for your time.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Rich Winslow – Commodore Association of San Pedro Bay Yacht Clubs. Member of Seal Beach YC Race committee. ASPBYC maintains the race marks used by all the yacht clubs in Long Beach. They also coordinate the race calendar to avoid scheduling too many events on the same day.

Rich's presentation:

I am Richard Winslow and have been active with the **Association of San Pedro Bay Yacht Clubs** for the past 5 years; this year, I am its Commodore. I am also on the Seal Beach Yacht Club race committee and when the opportunity exists, I sail on my boat and on others'.

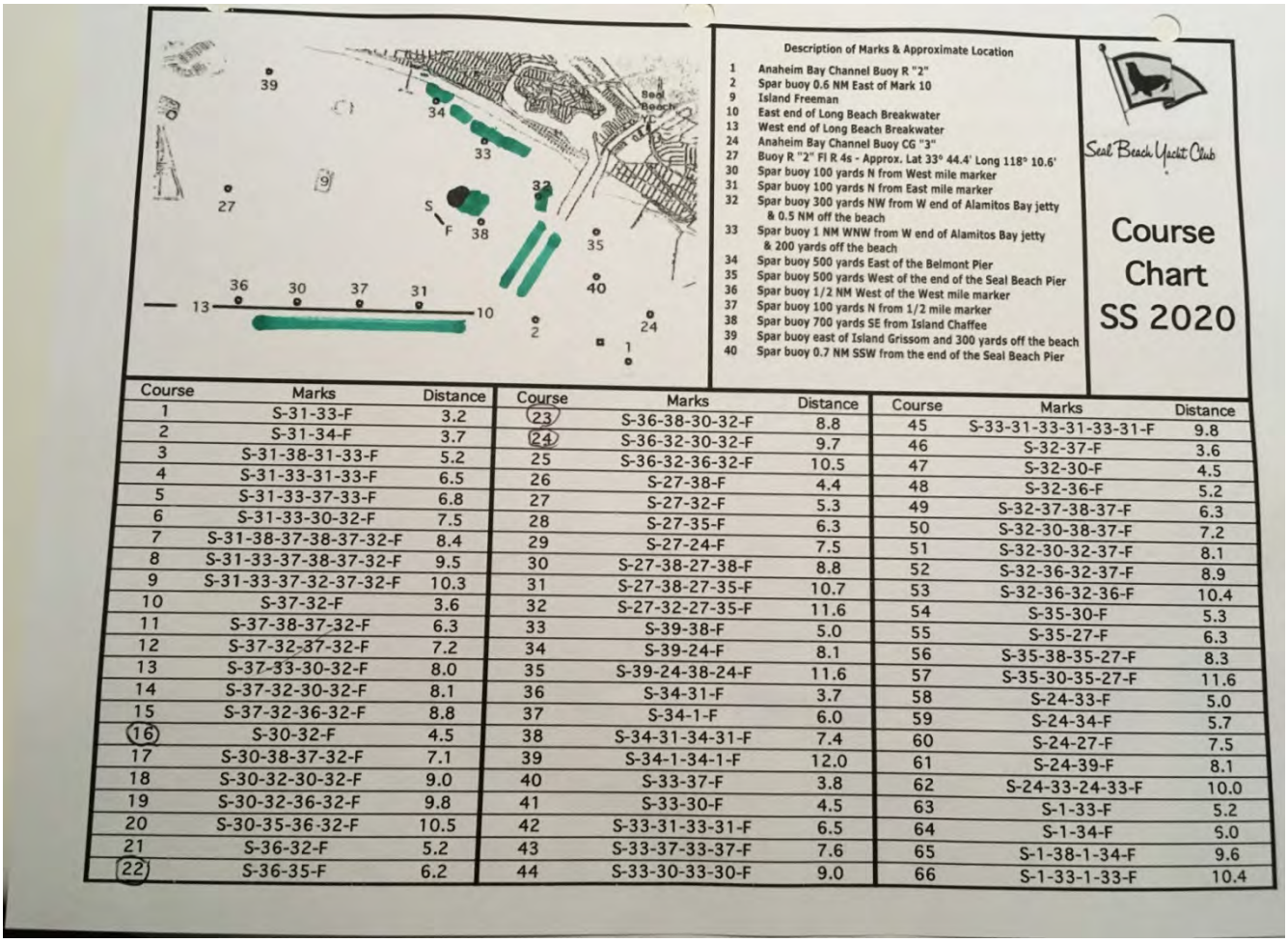
This Association is a club made up of 9, brick and mortar yacht clubs and 4 other organizations including the Power Squadron and a women's sailing association. The ASPBYC purchases, installs and maintains 12 racing buoys in the East End of San Pedro Bay with locations approved by the Coast Guard, and compiles a list of all the race dates. The Spreadsheet for 2021 show 225 separate race events. The spreadsheet is provided separately.

How Races Work

Typically, 28 to 40 boats from assorted yacht clubs compete each race. Boats are separated into classes of similar boats. Each class has their own start time and course. Courses are select by the Race Committee based on wind direction, wind speed, and speed of the boats in the Class. Fast boats are assigned longer courses than slow boats.

With 4 to 15 crew on each of these boats, about 300 sailors are involved on *each race.* There are over 50,000 person use per year. These photos are examples of the racing fleets, racing. They take up a lot of space and go in all different directions during the same races. Courses are selected from the course chart announced for each race. A typical course chart follows. The location of the proposed reefs is highlighted.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021



Course	Marks	Distance
1	S-31-33-F	3.2
2	S-31-34-F	3.7
3	S-31-38-31-33-F	5.2
4	S-31-33-31-33-F	6.5
5	S-31-33-37-33-F	6.8
6	S-31-33-30-32-F	7.5
7	S-31-38-37-38-37-32-F	8.4
8	S-31-33-37-38-37-32-F	9.5
9	S-31-33-37-32-37-32-F	10.3
10	S-37-32-F	3.6
11	S-37-38-37-32-F	6.3
12	S-37-32-37-32-F	7.2
13	S-37-33-30-32-F	8.0
14	S-37-32-30-32-F	8.1
15	S-37-32-36-32-F	8.8
(16)	S-30-32-F	4.5
17	S-30-38-37-32-F	7.1
18	S-30-32-30-32-F	9.0
19	S-30-32-36-32-F	9.8
20	S-30-35-36-32-F	10.5
21	S-36-32-F	5.2
(22)	S-36-35-F	6.2
(23)	S-36-38-30-32-F	8.8
(24)	S-36-32-30-32-F	9.7
25	S-36-32-36-32-F	10.5
26	S-27-38-F	4.4
27	S-27-32-F	5.3
28	S-27-35-F	6.3
29	S-27-24-F	7.5
30	S-27-38-27-38-F	8.8
31	S-27-38-27-35-F	10.7
32	S-27-32-27-35-F	11.6
33	S-39-38-F	5.0
34	S-39-24-F	8.1
35	S-39-24-38-24-F	11.6
36	S-34-31-F	3.7
37	S-34-1-F	6.0
38	S-34-31-34-31-F	7.4
39	S-34-1-34-1-F	12.0
40	S-33-37-F	3.8
41	S-33-30-F	4.5
42	S-33-31-33-31-F	6.5
43	S-33-37-33-37-F	7.6
44	S-33-30-33-30-F	9.0
45	S-33-31-33-31-33-31-F	9.8
46	S-32-37-F	3.6
47	S-32-30-F	4.5
48	S-32-36-F	5.2
49	S-32-37-38-37-F	6.3
50	S-32-30-38-37-F	7.2
51	S-32-30-32-37-F	8.1
52	S-32-36-32-37-F	8.9
53	S-32-36-32-36-F	10.4
54	S-35-30-F	5.3
55	S-35-27-F	6.3
56	S-35-38-35-27-F	8.3
57	S-35-30-35-27-F	11.6
58	S-24-33-F	5.0
59	S-24-34-F	5.7
60	S-24-27-F	7.5
61	S-24-39-F	8.1
62	S-24-33-24-33-F	10.0
63	S-1-33-F	5.2
64	S-1-34-F	5.0
65	S-1-38-1-34-F	9.6
66	S-1-33-1-33-F	10.4

Course legs going from other buoys to 1, 2, 32, & 35 cross anywhere along the 1.1 mile long line between Alamitos Bay harbor entrance and the east end of the outer breakwater. Some races finish inside Alamitos Bay by ABYC or the gas dock. These courses conflict with where you plan to establish shallow Kelp reefs acres of kelp.

The courses sailed are selected from a list of, for example, 66 courses for Seal Beach Yacht Club events. The courses used are selected by the race committee minutes before the start based upon the direction and speed of the wind at the time the "start" is to occur, hours of available daylight and the speed capability of the boats actually running that particular start. The course chosen requires the boats to go around multiple buoys on the way to the finish line. There and back races are not common.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Success of the Reefs is Not Likely but Economic Impact is Certain

I would like to make two additional points:

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1. **First,** the effort to introduce kelp gardens is a tax dependant, expensive effort that is likely to fail because the environment is not good for Kelp even with artificial reefs. The economic benefit from construction comes from taxes collected from this same community. It is not a "winning" endeavor. 57-1

2. **Secondly,** success or failure, it will cause major damage to the sailing community which has been money generating and self sustaining for over 50 years. Discouraging racing would discourage boat usage, which would in turn, discourage boat ownership and damage this tax paying base of the city through generating revenue from marina slip rental, personal property taxes paid for the boats, property taxes paid for the boat slips while it damages revenue earned by the local community that services these boats and boat races including trophy makers, publications, restaurants, caterers, sale of liquor, bartenders and food service employees, and disrupts the social network of race committees, crews and owners. 57-2

For the first point; Why is the TSP likely to fail? It is **not *restoring*** the east end of the bay as the title to the program misleadingly claims; it proposes to transplant west end topography and habitat to the dissimilar, east end of the bay. The east end has a soft bottom, not rocky except where rocks have been installed for breakwaters and the oil islands. 57-3

Beyond that fact, the bay is polluted by DDT, PCB's, heavy metals, effluence etc, according to your own report. Public health warnings are issued to limit the number of fish eaten. It is questionable whether kelp and eelgrass would flourish, and whether fish and other aquatic life would thrive in this toxic environment. It is incontrovertible that San Pedro Bay is usually, if not nearly always, too ***warm for a healthy population of kelp***. Some sources say Kelp needs water colder than 58 degrees to thrive. Actual temperatures in the bay are even warmer than at Seal Beach Pier because it gets cold ocean water, while the San Pedro Bay is sheltered, shallow, heated by the sun and fed, in part, by rivers. Above 57 degrees kelp dies and floats on the surface in a matter of a few weeks. You may get a month or so of growth, but then, it will die and become a hazard and nuisance. 57-4

It then washes onto beaches, where it smells and breeds flies. It detracts from the community in every way that can be measured. But there is more! At additional taxpayer expense, rotting kelp is removed and disposed of by heavy, diesel powered, construction equipment.

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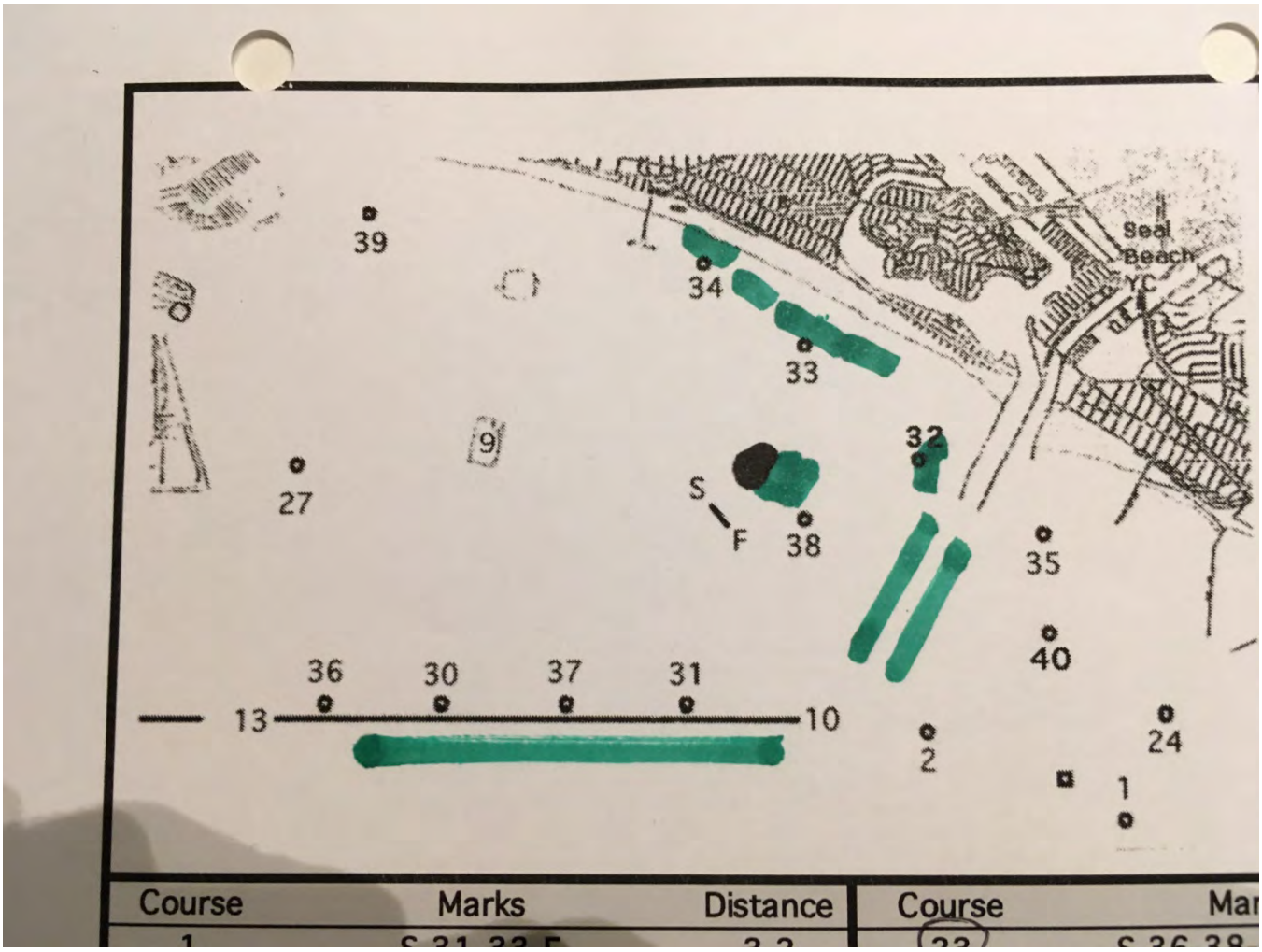

The shallow, rocky oyster beds by racing buoys 32, 33 and 34 will be destroyed by Santa Anna winds blowing sand from the beach making it inhospitable for the oysters so they will not filter the water as designed. 57-5 These remaining rock beds and reef including the ones to be placed to the east of Island Chaffee are dangerous obstacle to boats and kite surfers, especially foiling surf boards, which increasingly use that part of the bay 57-6

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These boats are maneuvering near the area where the eel grass and oyster beds are proposed.

The second point:

Appendix C of the report talks about modest benefits of physical and mental health activities and sedentary activities like beach combing as beneficial physically, emotionally, socially and aesthetically, implying the TPS will encourage people to exercise and relax more. Reefs and plants won't affect the community in any positive, meaningful way. Recreational Diving is mentioned, but the water has less than 15' of visibility, which will not attract diving.

Many of the sailboats racing range from under 25', drawing 3' of water boats *with crews of 4*, to 52' boats with a *crew of over a dozen, drawing 10' of water or more*. Boats avoiding, or tangling up in kelp, or hitting underwater rocks will seriously affect hundreds of boats in hundreds of races. Reefs in depths of 12' or more in mean low water levels, will be more shallow in low "king tides." Ocean swells and boat wakes also lower the actual water level under boats. Hitting bottom in soft bottom areas is one thing, hitting rocks is an entirely different matter. 57-7

Current Benefits Not Explored

In contrast, the "No Change" Alternative has several unmentioned, social, economic and health related benefits. Sailing offers unrecognized, visual and esthetic value as evident in previous photos. Not considered in the TSP is that people on shore, including beach-goers, residents, and customers of Belmont Shores Brewery and the Ballast Point Brewery enjoy watching sailboats, especially when

they fly colorful spinnakers which is usually while racing or practicing racing.

The yacht clubs plus other clubs who sponsor national and international competition provide significant social and economic benefits. Sailing itself provides uncountable hours of healthy physical and mental exercise as well as personal satisfaction whether sailing or motoring in our beautiful climate for men, women and children of all ages. The 25' sailboat *Max* has a regular crew member, Bernie. He is 85 years old. Many boat skippers are in their sixties and seventies. *It is commonly said that "we don't stop sailing because we get old; we get old because we stop sailing."*

As things are, the economic benefits to the community that boating brings- in include tax dollars, boat slip fees paid to the City; employment of local people to clean boat bottoms, wax hulls, repair, and maintain boats, sails, and electronics. We buy equipment, clothing, host social gatherings and provide food to celebrate the victors and console the rest. Unlike construction of reefs and kelp, no public money is spent to sustain our sailing programs.

Sailing is non- polluting and uses 100% renewable energy. Yacht clubs also sponsor youth sailing programs, Lions' Sailing with the Blind and a program which introduce at-risk high school students to sailing as a reward for staying in school.

Less than Significant Impact on Boaters - Just Plain Wrong

Simply repeatedly concluding that the effects of the artificial reefs and kelp's interference with recreational sailing and boating uses is **"less than significant"** without explanation is embarrassingly and obviously, self serving. The report shows no effort to understand or appreciate the expanse that boat races need access to, nor of the benefits they offer. 57-8

I note that the initial commission of the study states at 1.2 page 68 of the study that it is to be done: "AS PUBLISHED AS HOUSE DOCUMENT NUMBERED 838,…WITH A VIEW TO DETERMINING *WHETHER* ANY MODIFICATIONS CONTAINED HEREIN ARE ADVISABLE AT THE PRESENT TIME….

Only by ignoring this threshold direction can the report favor making any change. 4A and others are offered without determining "whether modifications ***should be made***; it considers only the *Objectives, Considerations and Constraints* it adopted for itself, in a light favorable to the premature decision for *how* to most effectively expand what *was* at the west end of the bay, into the east end. It simply states that Alternative 1 is rejected because it does not dhange the habitat for kelp and fish.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

I hope that with the information you now have, you will reconsider your recommendation.

Respectfully,

Richard Winslow
Commodore, Association of San Pedro Bay Yacht Clubs,
Race Official and Judge Advocate for Seal Beach Yacht Club

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Dan Delave - Commodore of Alamitos Bay Yacht Club

I did not go through the green part at the meeting. That is in their report.

Costs

Table ES-3: Costs and Benefits

Item	No Action	ALT 2	ALT 4A	ALT 8
First Cost	$0	$83,587,000	$140,908,000	$560,681,000
OMRR&R	$0	$207,000	$251,000	$5,853,000
Average Annual Cost	$0	$3,407,000	$5,689,000	$27,892,000
AAHUs	0.0	125.4	160.9	307.3
AAC/AAHU	$0	$27,200	$35,400	$90,800
Zones with Restoration	0	3	3+	5
Restored Acres	0	162	201	372
First Cost/Restored Acre	$0	$516,000	$701,000	$1,507,000

Plan Provision

The ACoE's original estimate of the plan cost is approximately $141,000,000 for construction split with the city 65% to 35%. City pays Approximately $50 million. Yearly maintenance costs over $5,000,000. Who is paying for this Annual Cost? 58-1

As the non-Federal sponsor for the study, the City is responsible for project implementation in partnership with the Corps. The total project first cost is just under $141 million, which would be cost shared between the federal government (65%) and City (35%). The federal costs are estimated at approximately $91,590,200, with non-federal costs estimated at approximately $49,317,800. Project first costs include the pre-construction planning, engineering and design costs, construction costs of restoration features, LERRD values, and contingencies.

Concerns:

1. Have all costs been properly accounted for?
2. Who will pay for the Annual Costs?

Questions:

Page 128 of 577 shows considerations for users of the area but is completely ignored in the plan.

Water-Based Recreationists (related to charter boats, marinas, sport fishing, scuba diving, whale watching, harbor touring, sailing, and water-skiing). These persons have views to the shore while on the water, as well as open water views from the beaches or marina areas. Recreationists are considered a highly sensitive viewer group because they typically have expectations for scenic quality and are often much more focused on the aesthetic quality of their surroundings than

are commuters or people at work. Recreationists' focus is usually on their surroundings and their recreational activity. In addition, the recreation activity they are engaging in is usually enhanced by the surroundings. Long Beach and Seal Beach both have high visitation, particularly during late spring and summer months. Recreationists have direct and open views of the shoreline and open-water areas from the beach and nearby parks, and the quality of the view is considered high. Recreationists are generally highly sensitive to changes in the visual quality of an area.

1. Does the $5 million annual cost include?
   -Additional $ for the cost of Lifeguards and Harbor Patrol for life saving rescues caused by the reefs and kelp. Should there be general patrol of the reefs and kelp area?
   -Costs to extricate boaters and their vessels from kelp and off the rocks or possibly the beach.
   -Costs of keeping the kelp trimmed – which is not contemplated in the plan.
   -Costs of damages from lawsuits by private boat owners or others because of accidents and equipment damage caused by the intentional introduction of reef hazards and shifting kelp forests.

58-2

2. Has the ACoE estimated the revenue losses to the City of Long Beach (in sales Taxes), area boaters, yacht clubs, restaurants, and hotels due to the inevitable loss of revenue from limiting access to public boating areas. Losses not mentioned will be from cancellation of local, regional, national, and international races and regattas.

58-3

3. Is the plans cost vs benefit analysis in this plan still appropriate in the economically stressed world of today: with COVID-19 costs, etc.

58-4

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Tom Mayes – President of Long Beach Marina Boat Owners Association. Tom represents the interests of 3000 slip holders in the city's marina. He is vice chair of the City Marine Advisory Committee..

1. I am Dr. Tom Mayes, an Emeritus Professor of Management and President of the Long Beach Marina Boat Owners Association (LBMBOA), also known as BOA. We represent more than 3,000 boaters in the Long Beach, CA marinas. Most of these boaters do not belong to Yacht Clubs or engage in racing; they include both sail and power boat recreational owners. I have been sailing in the Long Beach waters for about 30 years and am also currently a member of the Long Beach Marine Advisory Commission.
2. The LB Marinas are managed by the LB Marine Bureau, with the 9 member Marine Advisory Commission, appointed by the Mayor, providing Citizen oversight. The Marine Bureau should have a key role as the "Face of the City" in providing input to the Corps of Engineers proposal 4A. 59-1
3. BOA is a vehicle for boater input to the LB Marine Bureau and the Marine Advisory Commission. We also assist in helping boaters resolve issues that may arise between them and the Marine Bureau.
4. BOA concurs with the suggestions presented by the previous speakers at this meeting and is particularly concerned about the hazards that would be created if the current plan is not modified to remove these hazards. Proposal 4A does represent a significant impact on boating and other water sports in the Long Beach area. 59-2 59-3
5. Thank you for considering the input of the of the boating public and other recreational users of the East San Pedro Bay waters. The LBMBOA would like to invite Army Corps of Engineers project managers to speak to our members at a future meeting of the membership.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Dave Booker - LBMBOA Environmental Officer – ASPBYC Sec/Treasure – Member SlBYC Race Committee.

In his remarks explaining how the Project Team came to chose the East side of San Pedro Bay and identify discreet locations, Chris Chabot, Teams Marine Biologist stated that the area was wide open water, free of development, and little used. It was a great area for project. He explain that projects proposed reef areas should be close to each other to facilitate cross site transfer of marine life.

In fact, this area has been used by generations of boaters and sailors. It is part of the area used by over 225 race events this year. This equates to over 50,000 sailors annual racing. These sailors bring huge economic lift to the local Long Beach business, and are a key part of the health both in revenue and new members for our Yacht Clubs.

This sailor count does NOT include the hundreds Kite boarders and wing-sailors that currently use the peninsula beaches for set-up, launch, landing , disassembly. Nor does it include the hundreds of power boaters that have nearby slips or those that launch from Davis Launch ramp which regularly transit the area where the reefs will be built.

The boating community does not oppose smart efforts to enhance the marine ecology of San Pedro Bay. However, the proposed project locations will impact current boaters and kite boarders. To-date, 60-1

These groups have not been part of the project citizen team. 60-2

Going forward, the boating community needs to be recognized as project stakeholders. City participation with the Corp's Project team should be move from Tideland (Oil production) to Marine Operations. Updates from the team should be covered in the Marine Advisory Council. 60-2

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Notable comments by Other Speakers

Michale Segerblom - US Sailing Long Beach Executive Director.

Long Beach annually hosts the nations largest small boat regatta - the Rose Bowl Regatta. This brings in hundreds of out of area boats, and thousands of out of area sailors. This regatta uses the peninsula beach to launch and recover 100's of these small boats.

Captain Bob Blair – speaking for Jacobson Pilot

The Corp team should be aware that the Navy has a barge route from the Naval Weapons station, to the designated anchorages protected by the breakwater. The route transects this area.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

MEETING SUMMARY NOTES

Note: Transcription of spoken comments by stakeholders. Best effort made to transcribe notes; however, a professional stenographer was not on hand during the meeting and notes are not considered an official transcript of the meeting.

Stakeholders identified in chat –

- Long Beach Yacht Club (LBYC)
- Long Beach Marina Boat Owners Association
- Alamitos Bay Yacht Club
- Jacobson Pilots
- Association of San Pedro Bay Yacht Clubs
- Recreational Boaters of CA
- POLB
- Orange County Coastkeeper
- California Marine Affairs and Navigation Conference
- EPA
- U.S. Sailing Center
- Southern California Yachting Association
- Pacific Coast Interscholastic Sailing Association
- Pacific Coast Collegiate Sailing Conference

Presentation -

Ed provided overview of study status.

- Presenting project recommendation. Report described impacts analysis. Acknowledged boater community desire to provide additional feedback.
- Although we have feasibility level design, this is what we are relying on for our recommendation to HQ and then for authorization.
- General locations for features in the Feas. Design. We had logic for placement. Can listen where we could modify design to minimize impacts.
- We will revisit the recommended plan and then will be open for questions.

Josh –

- Working with the Corps for years on this study.
- Noted we received CD from CCC last month.
- Important we consider all stakeholder concerns including the boating community.
- Look forward to hearing concerns and opportunities to mitigate for those.

Elvira – (City of LB – Oversees Marine Bureau)

- Acknowledges importance of recreational boating to community and stakeholder groups.

Eileen – Set ground rules and delivered presentation.

Chris C. – Discussed key habitat types, requirements, benefits, etc.

Matt – Discussed preliminary design of features, including locations and depths. Working with Coast Guard on best methods for marking restoration areas. Noted much more work to be done on designs during PED phase.

Concern over boaters going to Huntington Harbor and Newport Harbor.

Clive Hardaker -

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

- Asked to be involved going back to January of last year but did not get a response.
- Kelp beds near entrance will cause significant impacts to vessels.
- Kelp can get wrapped around propellers and cause boats to stall.
- Kelp growth hard to control.
- Issues with safe harbor refuge.
- Kelp often breaking loose – loose floating kelp is also a significant hazard.
- Point Loma and La Jolla – boats often impacted by kelp.

Mike Van Dyke –

- LB Resident. Did not catch all of his positions he currently holds and has held in the past.
- Co-Chair of Olympic Class Regatta. Alamitos Bay Yacht Club.
- LB will be hosting events.
- Events to be held in several years leading to 2028. Hosting hundreds of sailors per year.
- Current plan will compromise safety at entrance to Alamitos Bay.
- Will impact yachting.

Dave Booker – Speaking for Rich Winslow –

- Rich is a member of the Seal Beach Race Committee.
- Huge impact on routes used for sailboat racing.
- Provided a long list of race events. 245 race events scheduled for the year. 25-30 boats on average per event. 7-8 people per boat. Significant visitation – thousands annually.
- Should be a recognized stakeholder.
- Notes said about 50k total boaters annually for race events.

Todd Leutheuser –

- Member of LB Yacht Club.
- VP of Recreational Boaters of California. Represents 500k boaters.
- Boaters were not specifically listed as a stakeholder in the report.
- Had asked for relocation of the kelp due to safety concerns.
- Other users – kite surfers. Nearshore reef will cause impacts. Outrigger canoes also impacted by nearshore reefs.
- Stadium area for the Olympic Committee for boating events.
- Breakwater – provides unique conditions. Safe recreation activities. Wind provides acceleration for boats, but protected by BW.
- During nighttime and during inclement weather, there will be significant safety impacts.
- Area is a mecca for boaters. Corps plan will negatively impacted. Boater concerns were not considered until today even though they submitted comments a year ago.

Dan DeLave –

- Concern is over the project cost of $141M.
- Noted concerns in report to boating.
- Lifeguard and harbor control costs. Costs to educate boaters. Cost to address lawsuits from accidents, etc.

Tom Mayes – LBMBOA

- Concur that our plan would result in a significant impact on boaters and other water sports.

Dave Booker – LBMBOA

- The way we sited our project features will have significant impacts to boating.
- Would be willing to work with us to find alternative locations for project features.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

- Noted safety issues.
- Will send comments via email.
- They do not understand our timeline and process. They are not certain how to engage because of this.

Bob Blair –

- Barge traffic between Kilo Anchorage and Anaheim Bay could be impacted.
- Appreciates Corps not taking down BW.
- Some serious navigation safety implications from what is being proposed at the BW and the entrance to Alamitos Bay.
- Need better outreach. Consider kayakers, outriggers, kite surfers, etc.

John Shull

- Noted Concerns about commitments to Olympics
- Consider impacts above the water not just below the water.
- What is the next step? How do they become more involved?
    - Will complete the final report. No major changes to the design but acknowledge comments and need to address further in the PED phase.
    - Will have additional meetings during PED.

Michael Segarblom

- Making tweaks in PED is not going to address the concerns. We need to take a step back.

Laurie –

- Need to consider the importance of restoring habitat including on fish and supporting fishermen.

WEBEX Chat Transcript

BEGIN CHAT TRANSCIPT

from steve to everyone: 7:01 PM

CBYC/ASPBYC

from Matt Wesley to everyone: 7:01 PM

Welcome, Thank you for joining us this evening! We want to know who you're with. Please type in the chat box your affiliation.

from Matt Arms to everyone: 7:02 PM

Matt Arms, Port of Long Beach

from wendy corzine to everyone: 7:02 PM

Wendy and Mike Corzine with Long Beach Yacht Club and Alamitos Bay Yacht Club

from Tom Jacobsen to everyone: 7:02 PM

Captain Blair will comment for Jacobsen Pilot

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

from Matt Wesley to everyone: 7:03 PM

Welcome, Thank you for joining us this evening! We want to know who you're with. Please type in the chat box your affiliation.

from Matt Wesley to everyone: 7:04 PM

Welcome, Thank you for joining us this evening! We want to know who you're with. Please type in the chat box your affiliation.

Ground Rules:

* Global mute ON
* Webcam/video OFF except for speakers (optional)
* Eileen Takata and Matt Wesley are workshop Co-Hosts
* Other suggestions or questions? CHAT in.

from Cleve Hardaker to everyone: 7:05 PM

Recreational Boaters of California (RBOC)

from Bob Blair to everyone: 7:05 PM

Bob Blair Jacobsen Pilots and recreation boating

from Sarah Spinuzzi to everyone: 7:05 PM

Orange County Coastkeeper

from Jim Haussener to everyone: 7:05 PM

California Marine Affairs and Navigation Conference

from Rick von Heydenreich to everyone: 7:05 PM

I am not getting a clear audio

from Matt Wesley to everyone: 7:06 PM

Welcome, Thank you for joining us this evening! We want to know who you're with. Please type in the chat box your affiliation.

from Jerry Desmond to everyone: 7:08 PM

Jerry Desmond, also with Recreational Boaters of California

from Lauren Chase to everyone: 7:08 PM

Also with Orange County Coastkeeper

from Robin Truitt to everyone: 7:10 PM

Robin Truitt with the EPA listening to the concerns on boating and navigation.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

from christina to everyone: 7:10 PM

Christina Dunbar-Hester, researcher, USC, just here to listen (also LB resident)

from Sean Gamette to everyone: 7:11 PM

Sean Gamette, Port of Long Beach

from Maricris Lee to everyone: 7:11 PM

If you are not having an unclear sound reception, please call the following number below, and use the Meeting Number/Access code below. US Toll Free: 1-844-800-2712

Access code: 199 849 5629

from Matt Wesley to everyone: 7:11 PM

Welcome, Thank you for joining us this evening! We want to know who you're with. Please type in the chat box your affiliation.

from Trig to everyone: 7:14 PM

Jon Turigliatto, Vice Commodore, Long Beach Yacht Club.

from John Marshall to everyone: 7:14 PM

John Marshall with Southern California Yachting Association.

from Michael Segerblom to everyone: 7:14 PM

Michael Segerblom, Executive Director

from Michael Segerblom to everyone: 7:15 PM

US Sailing Center - Long Beach, CA

from Dan DeLave to everyone: 7:15 PM

Dan DeLave - Alamitos Bay Yacht Club - Commodore

from Matt Wesley to everyone: 7:19 PM

Welcome, Thank you for joining us this evening! We want to know who you're with. Please type in the chat box your affiliation.

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* Other suggestions or questions? CHAT in.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

from Eleanor Torres to everyone: 7:21 PM

Eleanor Torres, Director of Gov't Relations, Port of Long Beach

from Eduardo to everyone: 7:22 PM

Eduardo Arrieta Limon - Long Beach Marina Boat Owners Association

from Rick von Heydenreich to everyone: 7:26 PM

The areas inside the breakwater on either side of the entrance to Alamitos Bay are a prime recreational boating area that will suffer from traffic. 61-1

from Eileen Takata to everyone: 7:30 PM

My team, speakers - Dr. Chris Chabot is the project marine biologist. Matt Wesley is the Lead Coastal Engineer.

from Michele Grubbs to everyone: 7:34 PM

Michele Grubbs PMSA

from Randy Smith to everyone: 7:37 PM

These will be a significant HAZARD to navigation. The reefs off the end of the Alamitos Bay jetty will be directly in the path of ingress and egress to Alamitos Bay and also a significant hazard to boaters traveling from Newport/Huntington Harbors to Long Beach. 61-2

from Dan DeLave to everyone: 7:40 PM

Most of the listeners here were not considered stackholders and that is wrong. We are the users of the area!!! 61-3

from Eduardo to everyone: 7:40 PM

The kelp beds are the real danger. I understand that the reefs will be under 15' of water at all times, but the kelp will fall propellers, outboards and engine cooling disabling boats too close to rocks. There would be no way to avoid the kelp going. In and out of the marina and boats would have to go through the kelp to go between shoreline and Huntington harbor and Newport. 61-4

from Robert Piercy to everyone: 7:41 PM

Who is paying for this? City or Federal? 61-5

from Chuck Clay to everyone: 7:41 PM

This will impact the 2028 Olympics... 61-6

from Dan DeLave to everyone: 7:41 PM

Long Beach on the hook for $50 millian initially.

from Rick von Heydenreich to everyone: 7:41 PM

how high, relative to the ocean surface will the kelp beds be. 61-7

from Michael Segerblom to everyone: 7:42 PM

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

61-8

A reef with a depth of 15' at MLT (0) actually has a depth of only 8' at a negative tide of -7' a common tide as seen in recent weeks. MANY vessels from 40ft+ have depth greatly exceeding 8'.

from Rick von Heydenreich to everyone: 7:43 PM

There are boats withing Alamitos bay that have an 11+foot draft

from Sarah Spinuzzi to everyone: 7:43 PM

61-9

Have you analyzed the success of this restoration project in light of the high boater traffic? -OC Coastkeeper

from Gabe Ferramola to everyone: 7:44 PM

61-10

Those of us here only represent a handful of sailors that were invited to this presentation. There are thousands of boaters that have no clue about this.

from Brent Carey to everyone: 7:45 PM

Thanks Eleanor, would love to hear from others NOW maybe?

from Tom Mayes to everyone: 7:45 PM

The main problem for boaters seems to be the proposed kelp forest at the entrance to Alamitos Bay.

from Michael Segerblom to everyone: 7:47 PM

61-11

What sort of water quality analysis has been done (in this area)? In light of the LA River outflow, in my 50 years+ I have observed a great deal of very low water quality a good deal of the time particularly following rains. Impact of this?

from Rick von Heydenreich to everyone: 7:47 PM

61-12

I agree. Not only will it affect boating, but the traffic will affect the Kelp beds.

from Tom Mayes to everyone: 7:48 PM

61-13

Long Beach Marina Operations should have a critical role in revising this project.

from Jon Shull - LBYC to everyone: 7:48 PM

Todd Leutheuser is presenting on behalf of RBOC and LBYC

from Rick von Heydenreich to everyone: 7:48 PM

Mike van Dyke can represent LBYC

from Michael Segerblom to everyone: 7:49 PM

61-14

Has there been any outreach to the Kiteboarding community based on the potential dramatic impact of the nearshore reefs on their activities?

from Eileen Takata to everyone: 7:53 PM

from Penny Brush (privately): 7:50 PM

61-15

Will the new habitat areas help reduce wave energy from southern swells before reaching shoreline & beach areas to lessen damage to eelgrass habitat areas? Is there any plan to build out beach width along penninsula

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

so there is a more gradual beach slope to slow errosion issues?

from Cleve Hardaker to everyone: 7:53 PM (From Mr. Hardaker's presentation above)

Recreational Boaters of California (RBOC)

Kelp beds constructed in the vicinity of the very busy Alamitos Bay entrance will present serious hazards to the many recreational boaters and fishermen coming and going at all times of the day. At the very least, obstructions to the approach to Alamitos entrance will cause traffic density problems with reduced maneuvering room increasing the risk of vessel collisions.

Alamitos Bay is home to a large number of boats that come and go regularly. Many boaters and fishermen from all up and down the coast frequently enter the harbor.

Kelp consists of long, strong strands that can easily become wrapped in a boats propellor and can even cause engines to stall, rendering the boat disabled.

Kelp forest is not static. It grows and spreads, often in unpredictable directions.

Stormy weather, darkness and fog that drives sailors to seek refuge in a safe harbor also make it impossible to identify kelp forests and the peril of a stalled engine while approaching a rocky breakwater i

from Gabe Ferramola to everyone: 7:53 PM

They forgot to show the yellow dual arrows connecting to the Alamitos Bay jetties

from Cleve Hardaker to everyone: 7:56 PM (From Mr. Hardaker's presentation above)

The problem is not limited to kelp beds. Kelp is constantly breaking loose and drifting away, sometimes in the form of large patties and the loose kelp is just as hazardous as kelp attached to a reef.

I offer a couple of direct examples of the situations that arise:

This from the operator of TowBoatUS in San Diego where extensive kelp beds grow off Point Loma and La Jolla.We have continual issues with boats stuck in kelp. I don't think I could show a dire straits case where kelp was a contributing factor to a major accident.

I can say outboard, out drive and Jet boats hate kelp and it is a problem to the boater sometimes an expensive problem.

This from a 2016 article in the Laguna Beach Independent Newspaper that relates an incident involving loose floating kelp.

In an interview Monday, lifeguard Chief Kevin Snow says, "they were in a perilous position,"

Boat owner Alberto Vumigo took his wife, daughter and infant baby out for a Sunday outing that turned treacherous when their 18-foot vessel lost power.

from Cleve Hardaker to everyone: 7:56 PM (From Mr. Hardaker's presentation above)

Kelp ensnared the propeller of the outboard motor and the captain was unable to restart the engine.

Snow says wind and waves pushed the vessel onto rocks jutting from the water and in the surf-line.

Snow said, “they were very fortunate to get on the rock without anything happening.”

I would strongly suggest that the team who are designing the kelp reefs visit San Diego where I would be glad to take them out to observe the reality of kelp forest and boats.

from mike van dyke to everyone: 7:58 PM

mike van dyke Alamitos Bay Yacht Club / OCR (Olympic Class Regatta)

from Jim Haussener to everyone: 7:59 PM

If on the phone try *6 to unmute

from Sarah Spinuzzi to everyone: 8:02 PM

I lost volume

from Tom Mayes to everyone: 8:02 PM

I also cannot hear Dave

from Brent Carey to everyone: 8:02 PM

I lost volume

from Bob Blair to everyone: 8:02 PM

Large sailboats = deep drafting

from Dan DeLave to everyone: 8:02 PM

Ave your mic is out

from Danielle to everyone: 8:02 PM

the volume went down on my end too

from Brent Carey to everyone: 8:02 PM

Better now

from Sarah Spinuzzi to everyone: 8:02 PM

Better now

from Eileen Takata to everyone: 8:03 PM

Current Presenter - Dave Booker for Rich WInslow

from Rick von Heydenreich to everyone: 8:04 PM

There will be enough traffic to negatively affect the kelp bed.

from mike van dyke to everyone: 8:06 PM

I'm being asked to post my notes .....

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

from Ricdhard Winslow to everyone: 8:06 PM
number oof boats per race is 28 to 35. crrews of 5 to over 12 per boat. 50 thousand people counting each person for every race.

from Ricdhard Winslow to everyone: 8:08 PM

Can I offer a written presentation later this week? ow can I submidt it?

from John Marshall to everyone: 8:08 PM
For the non boat owners out there, having kelp beds in a widely used recreational boating area is the equivilent of randomly throwing spike strips out on the 405 freeway. Very hazardous conditions and a real safety issue. - John Marshall, Jr. Staff Commodore, Southern Caifornia Yachting Association 61-17

from Eileen Takata to everyone: 8:12 PM

Rich, yes, just email it to me. thank you.

from Michael Segerblom to everyone: 8:14 PM

I represent the following organizations and their constituents. I do not need to speak but want you to know that this groups are gravely concerned about the potential impact of this on their activities: 61-18

from Eileen Takata to everyone: 8:15 PM

Sorry - Rich and others, please send additional comments to : ESPB@usace.army.mil (that way my team can access comments), thank you.

from Michael Segerblom to everyone: 8:15 PM

Pacific Coast Interscholastic Sailing Association - High School Sailing in the State of California. Over 100 High Schools and close to 1000 student athletes.

from Michael Segerblom to everyone: 8:16 PM

Southern California Youth Yacht Racing Association - Youth Competitive Club Sailing in Southern California

from Eileen Takata to everyone: 8:18 PM

perhaps everyone can turn off videos unless speaking - might speed things up.

from Michael Segerblom to everyone: 8:18 PM
Pacific Coast Collegiate Sailing Conference - College Sailing in California and Hawaii. 20 Colleges including CSULB, USC, UCLA, UCI, UCSD, SDSU, UCSB from Southern California

from Rick von Heydenreich to everyone: 8:20 PM

Thanks Todd. Very well put.

from Ricdhard Winslow to everyone: 8:20 PM

Can I access audio by phone?

from Bob Blair to everyone: 8:20 PM
Great presentation Todd

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

from Chuck Clay to everyone: 8:21 PM
What about the other speakers?

from Maricris Lee to everyone: 8:22 PM
You may send your comments to ESPB@usace.army.mil.

from Rick von Heydenreich to everyone: 8:22 PM
Where do we send our comments?

from Rick von Heydenreich to everyone: 8:22 PM
thank you

from Kellie Canning to everyone: 8:25 PM
Can the Army Corp of Engineers confirm that much of the sand erosion problem is due to the acres of Port extension landfill and would that not make the Port responsible for some of the cost to rehabilitate the beach? 61-19

from Dan DeLave to everyone: 8:27 PM
hear you fine Tom

from Carol Anne Ginder Kofahl to everyone: 8:29 PM
from Carol Kofahl, Director, ABYC. How will these areas be marked for the general recreationalists' use? Boaters' safety should be of paramount concern. The areas should be marked as hazards on navigation charts, but most recreational boaters do not use these. 61-20

from Michael Segerblom to everyone: 8:30 PM
It sounds like it will likely be too late in the PED phase to make certain kinds of changes or modifications based on the input from the boating community. How can this be? RBOC has documented that they have attempted to get involved on the behalf of the boating community and "been ignored". Seems that this "process" should be amended ASAP to step back and re-evaluate based on the real world impact of this project. 61-21

from Brent Carey to everyone: 8:33 PM
Further to this point above from Michael, I heard from the ABYC Commodore Dan DeLave try to underscore a major underestimate of costs that will impact Long Beach, the Marina and the sailing community that is not highlighted in the study.

from Michael Segerblom to everyone: 8:33 PM
The Outrigger Canoe and Dragon Boaters have a huge stake in the Long Beach Area and should be included in these discussions. 61-22

from Ricdhard Winslow to everyone: 8:34 PM
Joine by phone with *6? 6*? ????
Jon Shull, Long Beach Yacht Club glad to speak

from Michael Segerblom to everyone: 8:40 PM

from Tom R Camp to everyone: 8:44 PM
How do those of us on this call make sure we get notice of further hearings and developments on this project? 61-23

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Is there a notice list we can get on to?

from Bob Blair to everyone: 8:46 PM
Great job Commodore

from Bob Blair to everyone: 8:47 PM
Great Point Mike

from Rick von Heydenreich to everyone: 8:47 PM
Thank you Commodore!

to Eileen Takata (privately): 8:50 PM
Nice Mike!

from Todd Leutheuser to everyone: 8:52 PM
Please present next steps to us all! Thank you

to Eileen Takata (privately): 8:53 PM
still 75 participants here.

from Todd Leutheuser to everyone: 8:54 PM
I have a comment

from Bob Blair to everyone: 8:56 PM
Great question

from Todd Leutheuser to everyone: 8:56 PM
The "Impact on Boating" in the initial report was consiered "Less than Significnt". We request that this position be removed from the final report. 61-24

from Bob Blair to everyone: 8:56 PM
Why does Covid close everything else down except this process?

from Blair to everyone: 8:57 PM
Agree Todd!! - Blair Carty, Rear Commodore LBYC

from Bob Blair to everyone: 8:58 PM
If the City of LB can't contribute their(our tax dollars)fair share does that stagnate or stop the process? 61-25

to Eileen Takata (privately): 8:58 PM
Thanks Brent

to Eileen Takata (privately): 8:59 PM
577 page report

from Tom Mayes to everyone: 8:59 PM
Be sure to include the BOA in future deliberations, not just Commodores of YC's

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

from Robert Piercy to everyone: 8:59 PM
If the city funds "dry up" does this plan still move forward? 61-26

from Robin Truitt to everyone: 9:00 PM
Thank you, Eileen, and all of you who expressed your comments and concerns on the potential impacts from the ESPB restoration project.

from Brent Carey to everyone: 9:01 PM
Yes Tom Mayes, my apologies, with respect. BOA and other representative organizations on the marina. My comments were not prepared and were running long.

from Gabe Ferramola to everyone: 9:01 PM
This option 4A is not feasible as a final submittal. Any reasonable adjustments in PED may be deemed too significant of a change. 61-27

from Eileen Takata to everyone: 9:01 PM

from Lisa Meier (privately): 9:01 PM
Has the economic impact of the Boating industry on local economics been considered? 61-28

to Eileen Takata (privately): 9:02 PM
not yet Lisa

from Tom Mayes to everyone: 9:02 PM

Thanks for this meeting, Eileen.

from Tom R Camp to everyone: 9:03 PM

Thanks, Eileen, and all who presented tonight!

from Brent Carey to everyone: 9:03 PM

Thanks Eileen for the time, and the hard work on this project balancing needs.

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Attendees	Title and Affiliation
John Shull	Commodore, Long Beach Yacht Club
Tom Jacobsen	Pilot, Jacobsen Pilot Service
Lisa Meier	Port Captain, Long Beach Yacht Club
Blair Carty	Rear Commodore, Long Beach Yacht Club; Jacobsen Pilot Service
Richard Winslow	Association of Long Beach Yacht Clubs
Rick Von Heydenreich	Rear Commodore, Association of San Pedro Bay Yacht Clubs
Steve*	Association of San Pedro Bay Yacht Clubs, Cabrillo Beach Yacht Club
Matt Arms	Port of Long Beach
Wendy and Mike Corzine	Long Beach Yacht Club, Alamitos Bay Yacht Club
Cleve Hardaker	Recreational Boaters of California
Sarah Spinuzzi	Orange County Coastkeeper
Jim Haussener	California Marine Affairs and Navigation Conference
Jerry Desmond	Recreational Boaters of California
Lauren Chase	Orange County Coastkeeper
Robin Truitt	EPA
Christina Dunbar- Hester	Researcher, USC
Sean Gamette	Port of Long Beach
John Turigliatto	Vice Commodore, Long Beach Yacht Club
John Marshall	Southern California Yachting Association
Michael Segerblom	Executive Director, US Sailing Center
Dan DeLave	Commodore, Alamitos Bay Yacht Club
Eleanor Torres	Director of Government Relations, Port of Long Beach
Eduardo Arrieta Limon	Long Beach Marina Boat Owners Association
Michael Grubbs	Pacific Merchant Shipping Association
Randy Smith	Long Beach Yacht Club
Robert Piercy	Chairman Ashore, Long Beach Yacht Club
Chuck Clay	Former Commodore, Alamitos Bay Yacht Club
Gabe Ferramola	Fleet Captain, Alamitos Bay Yacht Club
Brent Carey	Alamitos Bay Yacht Club
Tom Mayes	Long Beach Marina Boat Owners Association
Todd Leutheuser	Long Beach Yacht Club, Recreational Boaters of California
Mike Van Dyke	Rear Commodore, Alamitos Bay Yacht Club; Board of Governors, Long Beach Yacht Club
Penny Brush	No Info
Danielle	No Info
Richard von Heydenreich	Long Beach Yacht Club
Kellie Canning	Alamitos Bay Yacht Club
Carol Anne Ginder Kofahl	Director, Alamitos Bay Yacht Club
Tom R Camp	Long Beach Yacht Club
Barabara Hounsell	Alamitos Bay Yacht Club

Boater Input to East San Pedro Bay Restoration Plan – January 19, 2021

Brooke Jolly	Vice Commodore, Alamitos Bay Yacht Club
Alex Cross	Board of Directors, Alamitos Bay Yacht Club
Debi Lorbeer	Long Beach Yacht Club
Ed Spotskey	Alamitos Bay Yacht Club
Fox Boswell	Alamitos Bay Yacht Club
Gary Green	Former Commodore, Southern California Yachting Association
Jerry Desmond	Recreational Boaters of California
John Marshall	Presdident, Recreational Boaters of California
Lori Van Sky Hock	Alamitos Bay Yacht Club
Pat McCormick	Alamitos Bay Yacht Club
Randy Beers	Director, Long Beach Yacht Club
Sheryl and Doug Pearl	No Info
Steve McJones	Vice Commodore, Association of San Pedro Bay Yacht Clubs
Seiberts	No Info
Todd Leland	Super Intendent of Marine Operations, Long Beach Marinas
Bob Blair	Harbor Pilot, Jacobsen Pilot Services
Toni Morford	ABYC
Rich Matzinger	SLBYC
Joan Frei	No info

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS: January 14, 2020

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411 W. Ocean Boulevard
Long Beach, CA 90802

Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the Proposed East San Pedro Bay Ecosystem Restoration Feasibility Study (SCH No. 2019129006)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIS/EIR.

South Coast AQMD Staff's Summary of Project Description

The Lead Agency is evaluating aquatic ecosystem function and structure to restore and improve biodiversity for kelp, rocky reef, eelgrass habitats, and other types historically present in San Pedro Bay to support diverse resident and migratory species (Proposed Project). The Proposed Project encompasses 18 square miles and is located offshore in the eastern portion of San Pedro Bay, offshore from the City of Long Beach, California. The Proposed Project includes the No Action Plan (Alternative 1) and three action alternatives, each with components, as follows:

1. Alternative 2 – Kelp Restoration Plan: Introduce three habitat types including extensive kelp beds, nearshore rocky reef and eelgrass, creating a horseshoe shaped benefit area in the Bay on 162 acres. Construction is expected to take 30 months[1].

2. Alternative 4A – Reef Restoration Plan: Introduces a productive new habitat type of rocky reef placed along Island Chaffee (oil island) on 200 acres. Construction is expected to take 37 months[2].

3. Alternative 8 – Scarce Habitat Restoration Plan: restores three scarce habitat types, a sandy island, coastal wetlands, and oyster beds, aquatic habitat types on 372 acres. Construction is expected to take 53 months[3].

Implementation of each action alternatives requires sand dredging operations and material deliveries and transportation of stones from the Western Riverside County located in the South Coast Air Basin[4].

South Coast AQMD Staff's Comments

The Lead Agency is committed to implementing 12 best management practices for air quality that are built in to the action alternatives for the Proposed Project[5]. To further reduce the Proposed Project's construction emissions, South Coast AQMD staff recommends that the Lead Agency review and incorporate the following revisions to AQ-3 and AQ-6 in the Final EIS/EIR.

[1] Draft EIS/EIR. Page xv.
[2] Draft EIS/EIR. Page xvii.
[3] Draft EIS/EIR. Page xviii.
[4] Draft EIS/EIR. Pages 5-39 – 5-50.
[5] Draft EIS/EIR. Pages 4-69 – 4-70.

Zero-Emission or Near-Zero Emission Construction Vehicles

1. The Lead Agency is committed to using "all on-road construction vehicles would meet all applicable California on-road emission standards and would be licensed in the State of California[6]" (AQ-3). South Coast AQMD staff recommends that the Lead Agency revise AQ-3 to include additional information as follows. The recommended information establishes a clear set of construction vehicles that will be used, provides public transparency in the Lead Agency's decision-making regarding the use of clean construction vehicles, demonstrates a commitment by the Lead Agency to using clean construction vechicles, ensures implementation of clean construction vehicles during project implementation, strengthens the Lead Agency's environmental commitments for air quality, and facilitates the purpose and goal of CEQA on public disclosure.

   a) Require the use of zero-emission (ZE) or near-zero emission (NZE) on-road trucks during construction, such as trucks with natural gas engines that meet the California Air Resources Board's (CARB) adopted optional NOx emission standard at 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, the Lead Agency may require that operators of heavy-duty trucks visiting the Proposed Project during operation commit to using 2010 model year or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. When requiring ZE or NZE on-road haul trucks, the Lead Agency should include analyses to evaluate and identify sufficient power and supportive infrastructure available for ZE/NZE trucks in the Energy and Utilities and Service Systems Sections of the Final EIS/EIR, where appropriate. 62-1 62-2 62-3

   b) To monitor and ensure ZE, NZE, or 2010 model year trucks are used at the Proposed Project, the Lead Agency should require that operators maintain records of all trucks associated with the Proposed Project's construction and make these records available to the Lead Agency upon request. The records will serve as evidence to prove that each truck called to the Proposed Project during construction meets the minimum 2010 model year engine emission standards. Alternatively, the Lead Agency should require periodic reporting and provision of written records by contractors and conduct regular inspections of the records to the maximum extent feasible and practicable 62-4 62-5

Electric Dredging Equipment

2. The Lead Agency is committed to using dredging equipment during construction and maintenance that will be licensed in California and meet the model year 2010 (Tier 4 Final) or newer emission standards for san dredging operations (AQ-6). South Coast AQMD staff recommends that the Lead Agency maximize the use of electric dredging equipment to the fullest extent feasible. 62-6

Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), South Coast AQMD staff requests that the Lead Agency provide South Coast AQMD staff with written responses to all comments contained herein prior to the certification of the Final EIS/EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and to the public who are interested in

[6] Draft EIS/EIR. Page 4-69.

the Proposed Project. Further, if the Lead Agency makes the finding that the recommended revisions to AQ-3 and AQ6 not feasible, the Lead Agency should describe the specific reasons supported by substantial evidence for rejecting them in the Final EIS/EIR (CEQA Guidelines Section 15091).

South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact me at (909) 396-3308, should you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
LAC191127-02
Control Number

Appendix N

SECTION 2

JOINT RESPONSES TO PUBLIC/AGENCY COMMENTS

The U.S. Army Corps of Engineers (USACE) and city of Long Beach (City) thank the public and public agencies for their comments to the Draft Integrated Feasibility Report (IFR) during the public comment period from November 25, 2019 through January 27, 2020. Our agencies have considered all comments in preparation of the Final Integrated Feasibility Report (IFR) - Environmental Impact Statement-Environmental Impact Report (EIS/EIR) (Final IFR, Final IFR-EIS/EIR, or Final Report).

This section includes a table with each individual comment and the joint response. The original comment letters and emails can be found in Section 1. Each comment has a unique identifier number ("ID#" column name), shown in the response table below. Individuals may do a search for their name in this PDF file by locating the magnifying icon to open the "Find" dialogue box and typing in their name, or pressing the CTRL+F keys at the same time. General Responses (referred to as "GR" in responses), are longer responses to repeated, more complex comments. GR's are referenced in the table and are located at the beginning of this section.

General Responses (GR) To Comments

This section provides consolidated responses to comments on topics that were raised by multiple public and/or agency interests (displayed as General Response (GR)-1 to GR-8).

GR-1: Restoring Complex Habitats Historically Present in the Study Area

Response: Thank you for your comment. The National Ecosystem Restoration Plan (NER Plan), Alternative 4A, would restore marine habitats of national significance that have been lost and degraded within San Pedro Bay as reflected in the overall study goal to: *"Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the San Pedro Bay within the proposed Project Area of East San Pedro Bay."*

The Southern California Bight (SCB) is an unique ecological and economic resource that supports one of the most productive coastal ecosystems in the Nation, with San Pedro Bay (Study Area) being one of the most important embayment's of the mainland shelf along the SCB. Natural habitats and significant resources characteristic of the Study Area include abundant deep water close to shore, extensive coastal and offshore oil reserves, commercially or recreationally valuable fish and shellfish stocks, wildlife breeding and overwintering areas, kelp beds, beach and water recreation areas, and a climate tempered by the special oceanographic processes. The system of complex habitat types including bays, coastal wetlands, rock reef, kelp beds, eelgrass beds, and oyster beds supports a robust ocean nursery and a food-rich oceanic region. Despite the significant functions provided by the SCB, the portion within the Study Area is substantially degraded from its historic condition.

The objective of this study is to restore complex habitat types that were historically present in the greater San Pedro Bay. The Study Area was selected to capture the historic location of lost and degraded nationally significant habitat types for potential restoration in a smaller area within the constraints. The emphasis is not to restore habitat types that were historically present within only East San Pedro Bay, as that is a small subsection of a large ecosystem area.

This systems approach to ecosystem restoration is also consistent with USACE policy as stated in ER 1165-2-501 (30 September 1999), Section 5. Authorities. National policy concerning the protection, restoration, conservation and management of ecological resources includes compliance requirements, emphasis on protecting environmental quality, and endorsement of Federal efforts to advance environmental goals. Sub-Section 6. Policy. "Ecosystem Restoration is one of the primary missions of the Civil Works program. The purpose of Civil Works ecosystem restoration activities is to restore significant ecosystem function, structure, and dynamic processes that have been degraded. Ecosystem restoration efforts will involve a comprehensive examination of the problems contributing to the system degradation, and the development of alternative means for their solution. The intent of restoration is to partially or fully reestablish the attributes of a naturalistic, functioning, and self-regulating system."

The USACE is proposing to restore what was historically present throughout the Study Area but has declined significantly over the past 100 years due to development of the ports and other major infrastructure in the Study Area. Since that time, it has severely degraded and cannot recover on its own due to existing ports, infrastructure, and heavy vessel traffic. The Study Area once included extensive kelp beds, including the Horseshoe Kelp bed, rocky reef habitat as well as wetlands complexes. The loss of the large, approximately one-square-mile Horseshoe Kelp bed within the Study Area was likely due to dumping of sediment covering the rock substrate and turbidity from the construction of the Federal (San Pedro) Breakwater in the late 1800s and dredging of the Los Angeles and Long Beach Harbors in the 1940s and 1950s (MBC, June 2012). These infrastructure projects built by the USACE contributed significantly to the ecosystem stressors that resulted in the disappearance of the Horseshoe Kelp bed. According to the 2012 report by MBC Applied Environmental Sciences, "Much of the dredge material including an island in Los Angeles Harbor was placed on the banks in this area. A large increase in cargo and naval ship traffic, commercial fishing, dredge disposal operations, and an increase in industrial inputs into the San Pedro Bay probably are responsible for the loss. It is possible that during periods of especially good water clarity and nutrient availability, kelp will again recruit to the area.

However, continued ship traffic and inadequate water quality/clarity conditions persist." (MBC Applied Environmental Sciences, "Status of the Kelp Beds 2011," Ventura Los Angeles Orange Counties, Central Region Kelp Survey Consortium, June 2012).

As stated earlier, restoration of these habitats across their historic geographic distribution is not feasible due to the extensive port infrastructure and highly developed shoreline of western San Pedro Bay. Eastern San Pedro Bay, in close proximity to historic habitats of western San Pedro Bay, is an ideal location for restoration. It is the largest remaining undeveloped open water area within the bay suitable for large-scale restoration and is not subject to habitat stressors including existing ports, infrastructure, and intense vessel traffic. The approach to restore a functioning ecosystem over a smaller footprint than was historically present is consistent with USACE guidance, Engineering Pamphlet EP 1165-2-502 30, September 1999, Section 7. Ecosystem Restoration Philosophy and Policy, Sub-Section c. Ecosystem Restoration is a primary mission of the Civil Works program: "Civil Works ecosystem restoration initiatives attempt to accomplish a return of natural areas or ecosystems to a close approximation of their conditions prior to disturbance, or to less degraded, more natural conditions. In some instances, a return to pre-disturbance conditions may not be feasible. However, partial restoration may be possible, with significant and valuable improvements made to degraded ecological resources. The needs for improving or re-establishing both the structural components and the functions of the natural area should be examined. The goal is to partially or fully reestablish the attributes of a naturalistic, functioning, and self-regulating system."

Although the specific footprint of the proposed Project Area historically consisted primarily of sandy bottom habitat, the recommended plan and alternatives seek to take a systems approach to restoring the habitats, and associated ecosystem structures (physical features) and functions (ecosystem services such as food, nesting sites, or protective shelter) that were historically present in the Study Area, within the study constraints. This approach is consistent with USACE guidance cited above and with ER 1105-2-100, 22 Apr 2000, SECTION V - Ecosystem Restoration, E-28. Definitions of (a) Ecosystem and (d) Enhancement.

a. Ecosystem. An ecosystem is the dynamic and interrelating complex of plant and animal communities and their associated nonliving environment, considered as an integrated unit. Implied within this definition is the concept of structure and function unified through life processes. An ecosystem may be characterized as a viable unit of community and interactive habitat. Ecosystem restoration can be directed at different sized ecosystems within the nested set, and may encompass multiple states, more localized watersheds, or a smaller complex of aquatic habitats.

d. Enhancement. Historically the term "enhancement" has been used as an indication of a net habitat improvement over the without project condition. However, this term now implies making the habitat better for some species than it would have been naturally in the absence of human intervention. Since this goes beyond the goal of ecosystem restoration, the use of the term "enhancement" is rarely appropriate in Corps documents.

In addition, consideration of the Study Area is consistent with understanding the problems and opportunities of the "planning area" as described in Step 3 - Formulation of Alternative Plans (ER 1105-2-100, Planning Guidance Notebook, Section 2-3. The Planning Process. Section c.).

(3) In formulating alternative plans, it is essential that planners understand and fully visualize the problems of the planning area and how their plans will address these problems. Planners must maintain focus on the larger, complete plan(s) even while carrying out specific, individual tasks. While these individual tasks are necessary, their value is subordinate to successfully creating plans that work and function as visualized by those participating in the planning process. In that regard, vision rather than accountancy shall provide the foundation for sound planning and plan formulation.

GR-2: Why Wetlands Measures Are Not in the NER Plan

Response: Thank you for your comment. Alternative 4A, the National Ecosystem Restoration Plan (NER Plan), identified in the Draft IFR as the Tentatively Selected Plan (TSP), and is now the Recommended Plan featured in the Final IFR, restores nationally significant complex habitats per the planning objective in Section 2.2. The NER

Plan restores over 200 acres of coastal habitats including rocky reef, kelp beds and eelgrass beds and generates 161 habitat units. The NER Plan effectively meets the planning objective to *"Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within San Pedro Bay during the period of analysis (50 years)."*

Although the NER Plan does not include restoration of wetlands, the rocky reef, kelp, and eelgrass to be restored fulfill the sub-objectives by increasing the area, diversity, spatial heterogeneity, and connectivity of complex aquatic habitat types. As noted in Section 6.2.2 National and Regional Resource Significance, rocky reef, kelp and eelgrass complex habitat types support biodiversity and marine populations through provision of nursery, reproductive, shelter and other ecological functions at key life stages for fish and other aquatic species important to the SCB. Therefore, the NER Plan is a complete and effective plan for restoration despite the absence of wetland restoration.

Formulation of alternatives included development of measures for wetlands restoration, but all measures for wetlands had substantially higher incremental costs than those of some other habitat types. Under the Cost Effectiveness/Incremental Cost Analysis (CEICA) in IWR Planning Suite software (www. IWR Plan), wetlands measures did not enter plans until the more costly best buy plans (see Section 4.4). When evaluating and comparing the best buy plans, the Project Delivery Team (PDT) considered biodiversity and carried into the Final Array of Alternatives three action alternatives with one including wetland restoration measures (Alternative 8), as well as the no action alternative. Ultimately, the PDT did not identify Alternative 8 as the NER Plan. The determination of the NER Plan was based on the applicable USACE criteria as explained in Section 4.7 of the IFR. Alternative 8 was not determined to be the NER Plan, not only because of the incremental cost per habitat unit, but also because of the overall cost of the additional measures, including cost of operation, maintenance, repair, rehabilitation, and restoration (OMRR&R).

The wetlands that were identified as technically feasible were very expensive not only to construct but also to maintain. Even for the smaller of the two wetlands in Alternative 8, the average annual OMRR&R, or operations and maintenance costs, exceeds $600,000. Due to lack of suitable sites on land to restore wetlands, construction of structures in open water would be needed to contain the wetlands. Building the wetlands out in open water conditions (as opposed to carving out a wetland from solid land) would require high initial construction costs, large material quantities, unique construction elements due to limited demand, specialty fabrication and specialty marine equipment, all of which increase project risks. The high level of risk resulted in a 90% cost contingency for the wetlands measures. As a result, the average annual cost per habitat unit for wetlands restoration is much higher than the measures included in the NER Plan. In consideration of reasonableness of cost and sustainability considerations (based upon expected OMRR&R requirements), the NER Plan did not include the wetland restoration measures. The non-Federal sponsor concurs with the NER Plan as the Recommended Plan.

In accordance with USACE regulations (ER 1105-2-100), for ecosystem restoration projects, the plan that reasonably maximizes ecosystem restoration benefits compared to costs, consistent with the Federal objective, shall be selected as the Tentatively Selected Plan, unless there is a Locally Preferred Plan (LPP). Projects may deviate from the NER Plan if a LPP is requested by the non-Federal sponsor and approved by Assistant Secretary of the Army for Civil Works. A LPP request would require additional study time and costs, and the non-Federal sponsor would also be required to pay 100% of project implementation costs above and beyond the features of the NER Plan. The non-Federal sponsor has indicated that they support the NER Plan as identified in the Feasibility Report. The LPP policy is stated in USACE regulations as follows:

PGN, ER 1105-2-100, Appendix F, Amendment # 2, 31 Jan 07

(3) Locally Preferred Plans. Projects may deviate from the NED and/or NER plan if requested by the non-Federal sponsor and approved by ASA (CW). The decision document may recommend locally preferred plans (LPP) formulated using the same procedures for specifically authorized projects described in paragraph 2-3.f.(4) of this regulation. Before a decision document recommending a LPP may be approved, a waiver request prepared in

accordance with paragraph F-10.f.(4) of this Appendix must be approved by ASA (CW). When the LPP is clearly of less scope and cost and meets the Administration's policies for high priority outputs, a waiver is usually granted. For those cases, in which the LPP has costs in excess of the NED or NER plan, the decision document must describe and compare the NED or NER plan and the LPP and specify the difference in the costs of the two plans and that the non-Federal sponsor agrees to pay all costs over the Federal share of the NED or NER plan. The LPP, in this case, must have outputs similar in-kind, and equal to or greater than the outputs of the Federal plan.

The non-Federal sponsor has indicated that they support the NER Plan as identified in the IFR.

GR-3: Support for Alternative 4A / National Ecosystem Restoration Plan / Recommended Plan

Response: Thank you for your participation in the planning process and for supporting Alternative 4A as the Tentatively Selected Plan (TSP) in the Draft IFR. The Draft IFR identified Alternative 4A as the National Ecosystem Restoration (NER) Plan because it reasonably maximizes net ecosystem restoration benefits as compared to costs. Following release of the Draft IFR, the NER Plan (TSP) has since been identified as the Recommended Plan for the Final IFR. The Recommended Plan will restore 200 acres of complex and highly productive coastal habitats including kelp beds, rocky reef and eelgrass. The Recommended Plan provides habitat for key life stages of a diverse population for fish and other aquatic species through provision of foraging, sheltering and critical nursery functions that support population health and growth. The Recommended Plan generates 161 average annual habitat units (AAHU) at a cost estimate of $262 million.

Although breakwater plans were analyzed throughout the study process, results show they provided no additional benefits for the complex habitat types targeted for restoration. In addition, the breakwater modifications would violate key planning constraints by impacting the U.S. Navy and other maritime operations, as described in Section 4.5.7 Breakwater Plans Analysis Summary of the IFR. Breakwater plans are also excessive in cost, identified at $600 million - $1 billion. Based on the above, breakwater plans were screened out from further consideration.

There have been no changes to Alternative 4A between the Draft and Final IFR. Only refinements to the costs and construction durations have been updated and can be found in the Executive Summary and in Chapter 6.

GR-4: Support for Keeping the Breakwater Intact

Response: Thank you for your comment. The Final IFR identifies Alternative 4A, which will restore 200 acres of complex and highly productive coastal habitats including kelp beds, rocky reefs and eelgrass, as the Recommended Plan. Although breakwater plans were analyzed throughout the study process, results show they provided no additional benefits for the complex habitat types targeted for restoration. In addition, the breakwater modifications would violate key planning constraints by impacting the U.S. Navy and other maritime operations, as described in Section 4.5.7 Breakwater Plans Analysis Summary of the IFR. Breakwater plans are also excessive, identified at $600 million - $1 billion. Based on the above, breakwater plans were screened out from further consideration.

GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered

Response: Thank you for your comment. The National Ecosystem Restoration Plan (NER Plan), Alternative 4A, would restore lost and degraded marine habitats of national significance within San Pedro Bay, as reflected in the overall study goal to *"Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the San Pedro Bay within the Proposed Project Area of East San Pedro Bay."* The overall planning objective is to: *"Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within San Pedro Bay during the period of analysis (50 years),"* with sub-objectives for increasing the area, diversity, and connectivity of complex aquatic habitat types. This objective and the sub-objectives are consistent with Corps ecosystem restoration policy.

Circulation improvements to support aquatic habitat were initially identified as an objective early in the study process, based on the assumption that improving circulation was necessary to restore targeted habitat types. Under this assumption, stakeholders and the PDT brainstormed various measures that had the potential to improve circulation. As described in Section 4.2, the team considered and analyzed measures including breakwater modifications, underwater contouring, and a training wall. However, additional analysis and effort in formulating restoration alternatives, the team found that existing water quality and circulation within the proposed Project Area were not issues for the types of habitat the USACE is trying to restore, in the locations identified, based upon modeling results and analysis.

The team determined that suitable restoration opportunities were available under current conditions. The suitability of restoration locations eventually included in the Final Array of Alternatives was validated by the habitat evaluation model, documented in Appendix D. In this model, various critical environmental parameters, including circulation, were identified by subject matter experts. These critical parameters determine the quality of environmental conditions or suitability of a particular location to support restoration of target aquatic habitat types. For example, the critical parameters analyzed for eelgrass habitat included circulation, depth, substrate, and temperature. It is for these reasons that improving circulation was eventually dropped from the objectives.

Water quality is not a core water resources mission of the USACE and was at no time a specific study objective. Civil Works restoration and protection projects may in some circumstances involve cost effective solutions involving measures to improve water quality parameters as important components of ecosystem structure and function. Consideration should be given to whether the water quality improvements will accomplish restoration of the system as other ecosystem components may also require attention. The USACE will not propose, for Civil Works implementation, restoration projects or activities that would principally result in treating or otherwise abating pollution problems caused by other parties where they have, or are likely to have, a legal responsibility for remediation or other compliance responsibility. (Engineer Pamphlet EP 1165-2-502, 30 September 1999, Section 11. Water Quality). Therefore, the USACE can consider measures to address circulation and water quality to the extent doing so is needed to achieve the ecosystem restoration objectives, which for the proposed project was not necessary.

GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process

Response: Thank you for your comment. Concerns were expressed stating that sandy bottom, sandy beach, and sandy intertidal habitats should not have been excluded from the targeted habitat types for restoration; sandy bottom, beach and intertidal habitats are critical habitat types in the proposed Project Area; ecological lift in sandy habitat types should have been scored in the habitat model; and exclusion of the sandy habitat type from targeted restoration and from scoring in the model resulted in the model identifying no benefits from breakwater alternatives and the study prematurely excluding reasonable alternatives that include breakwater modifications.

Soft (Sandy) Bottom Habitat is an important habitat type but not scarce or complex. While sandy bottom habitat types were recognized by the study team as an important component of the ESPB project area, the Study Area, and the greater SBC ecosystem, sandy bottom habitat types are abundant rather than scarce and are not complex. Because one of the three project sub-objectives is to *increase the extent (total area) of complex aquatic habitats within the proposed Project Area*, sandy bottom habitats were not a target of restoration for this study.

The study recognizes that soft-bottom marine habitats are an important habitat type within the ESPB project area and the greater SBC ecosystem (see, e.g., Appendix D-1: Biological Supplement). The differing grain sizes of sediments provide foraging and shelter for various benthic organisms and groundfish species. Benthic soft bottom substrates “predominate in an overwhelming percentage of the marine area along the SCB.”

The study’s planning objectives are directed at the restoration of complex aquatic habitat types rather than the restoration of all habitat types found or historically found in the study area. The identification of the habitat types on which to focus restoration was made by the PDT with members of a Habitat Technical Advisory

Committee (TAC) for the study. The TAC members include subject matter experts and resource agency representatives. Sandy bottom was identified as abundant and as having low productivity.

As described in Section 4.2.3 of the Draft IFR, restoration of sandy bottom habitat was screened out because "sandy bottom is abundant within the SCB, and the Study objective is to: "Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within the San Pedro Bay during the period of analysis (50 years)." Sandy bottom is not nearly as productive as rocky reef which has 9-23 times the fish productivity. Additionally, there was low acceptability by the non-Federal sponsor for this proposed restoration measure, which is reflected in constraint #3: "Do not allow for infilling any of the energy island borrow pits located within the ESPB boundary." The reference to acceptability and constraint #3 indicated that a potential location at the borrow pits site was unavailable.

The habitat model was developed to evaluate increases in outputs associated with measures to address the study objectives. Sandy bottom habitats were not targeted for restoration and were excluded from assessment in the habitat evaluation model for a number of technical and logistical reasons. Appendix D-1 explains the difficulty in effectively measuring restoration success for soft bottom habitats. The particle or grain size of soft sediments in the Study Area vary naturally due to local conditions, making it difficult to determine a specific and/or meaningful optimum input for the model parameter. Soft-bottom nearshore areas that support eelgrass beds were included in the habitat evaluation model because it is a complex habitat type that the TAC recommended be considered for restoration.

Sandy Beach, Sandy Intertidal & Sandy Subtidal (Soft-Bottom) Habitats

Sandy beach, sandy intertidal and sandy subtidal habitats were considered in the study. Section 4.1.1 Key Assumptions notes, "For the purposes of this ecosystem restoration project, "subtidal habitat" includes all submerged areas of the bay as they pertain to rocky reef, kelp beds, and eelgrass communities. The Project also addresses certain "intertidal habitats," such as tidal wetlands and sandy shores associated with emergent islands. Sandy islands and wetlands are both sandy intertidal habitat types considered in the study, with input from the TAC, including resource agency representatives. These forms of sandy beach habitat, suitable for sensitive shorebird species, were included in Alternative 8 as further described in Section 4.5.4.

Sandy beach is recognized as an important transitional habitat type in Section 3.6 Soft Bottom Substrates and in Appendix D-1 Section 3.3.6. As discussed in Section 5.7.2, Environmental Impacts Evaluation of Each Alternative, No Action Alternative, Special Status Species and Habitats, sandy beach habitat is not considered to be a viable location for sensitive shorebird species due to the level of recreational use and beach grooming activities and therefore not considered for restoration nor was it included in the habitat evaluation model.

Water Column Habitat

Water column habitat was not targeted for restoration for the same reasons as sandy bottom habitat. Section 4.1.1 of the Draft IFR acknowledges water column and muddy, soft-bottom habitat as "being essential for marine species and supports valuable ecosystem services." Appendix D-1, Section 3.1 Habitats Not Targeted For Restoration, discusses how water column habitat was not identified as a separate measure with defined restoration targets. Water column habitat does not meet the study objective as an complex habitat as it is abundant compared with kelp, rocky reef or eelgrass. As a result, water column habitat was not included in the formulation of alternatives.

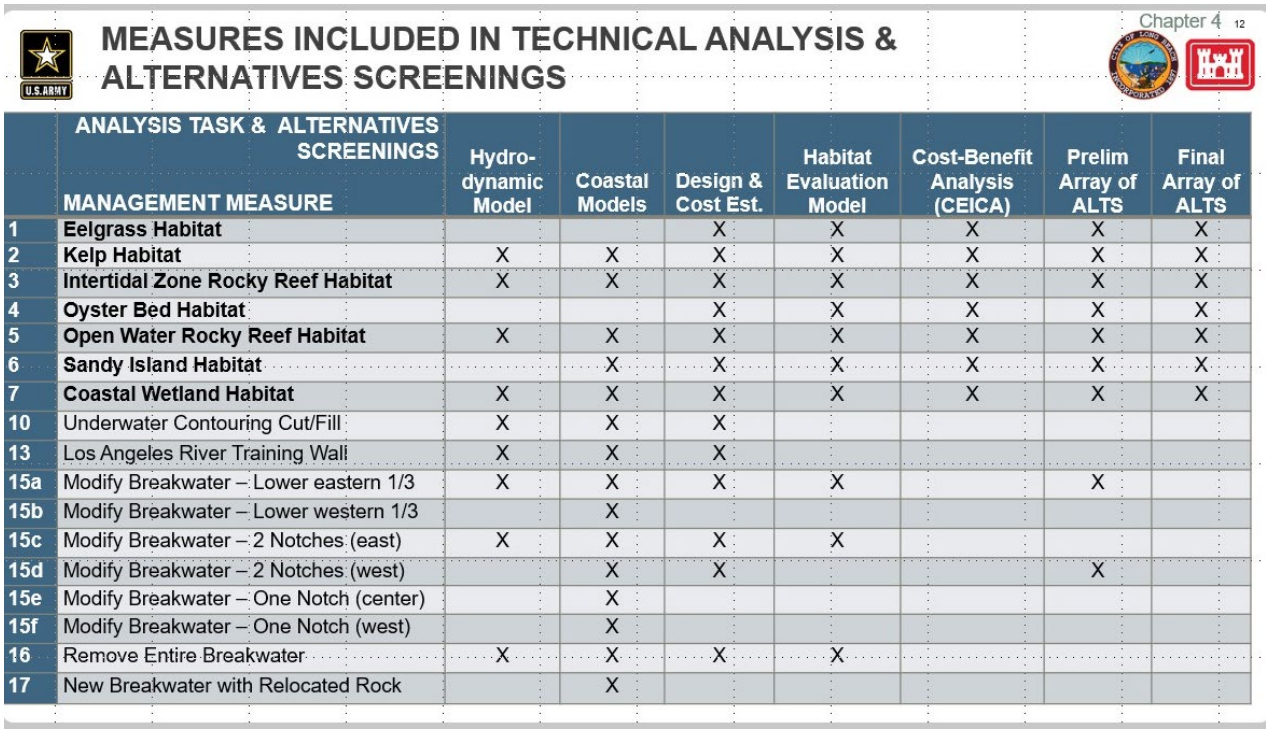
Model development and use

The model that was developed to evaluate restoration is described in Section 4.3.2 and Appendix D. The model captures suitability of rocky reef, kelp, eelgrass, oysters, tidal salt marsh and sandy islands in specific locations within the proposed Project Area and predicts the increases in habitat quality under different restoration scenarios. After evaluation by the team and subject matter experts, soft bottom and water column habitats were not included because they were not targeted for restoration for reasons stated above.

GR-7: Breakwater Plans in the Plan Formulation Process

Response: Thank you for your comment. Breakwater plans were fully included in the plan formulation process, they were not carried forward to the Final Array of Alternatives. This was because, although the breakwater modifications identified during plan formulation were technically feasible, they were found to violate study constraints and would be extremely costly to implement. When plans or measures violate study constraints, they are screened from further consideration. Plans that are excessive in cost also would be eliminated as impracticable.

Understanding the importance to the community that breakwater plans were included in the plan formulation process, the Corps and City developed and fully analyzed breakwater plans for responsiveness to the study objective, consistency with constraints, and costs. Various breakwater modifications were designed and costed out, included in hydrodynamic modeling, included in the habitat evaluation model, and vetted with the Ports Working Group and Habitat Technical Advisory Committee as well as the public and in internal Vertical Team meetings. The following table, presented at the December 2019 Public Meeting, and included in Chapter 4 of the final report, summarizes the extent which breakwater measures were included in the plan formulation process.



MEASURES INCLUDED IN TECHNICAL ANALYSIS & ALTERNATIVES SCREENINGS

Chapter 4 12

	ANALYSIS TASK & ALTERNATIVES SCREENINGS MANAGEMENT MEASURE	Hydro-dynamic Model	Coastal Models	Design & Cost Est.	Habitat Evaluation Model	Cost-Benefit Analysis (CEICA)	Prelim Array of ALTS	Final Array of ALTS
1	**Eelgrass Habitat**			X	X	X	X	X
2	**Kelp Habitat**	X	X	X	X	X	X	X
3	**Intertidal Zone Rocky Reef Habitat**	X	X	X	X	X	X	X
4	**Oyster Bed Habitat**			X	X	X	X	X
5	**Open Water Rocky Reef Habitat**	X	X	X	X	X	X	X
6	**Sandy Island Habitat**		X	X	X	X	X	X
7	**Coastal Wetland Habitat**	X	X	X	X	X	X	X
10	Underwater Contouring Cut/Fill	X	X	X				
13	Los Angeles River Training Wall	X	X	X				
15a	Modify Breakwater – Lower eastern 1/3	X	X	X	X		X	
15b	Modify Breakwater – Lower western 1/3		X					
15c	Modify Breakwater – 2 Notches (east)	X	X	X	X			
15d	Modify Breakwater – 2 Notches (west)		X	X			X	
15e	Modify Breakwater – One Notch (center)		X					
15f	Modify Breakwater – One Notch (west)		X					
16	Remove Entire Breakwater	X	X	X	X			
17	New Breakwater with Relocated Rock		X					

Habitat evaluation model results showed that breakwater modifications provided no restoration benefits for the complex habitat types to be restored, including kelp, rocky reef and eelgrass. Analysis of measure combinations identified that restoration of complex habitat types is feasible without modifying the breakwater. Breakwater plans were extremely costly at $600 million - $1 billion. On their own, breakwater modification measures do not provide habitat outputs.

Despite having been identified as not meeting or supporting the study objective, breakwater plans persisted and were subsequently included in the Preliminary Array of Alternatives. Two breakwater plans, “Alternative BW1 – Breakwater Western Notching Plan” and “Alternative BW2 – Breakwater Eastern Removal Plan”, were detailed in Section 4.5 Preliminary Array of Alternatives. In Sections 4.5.5 and 4.5.6, conceptual designs and protective features are described with multiple cross-sections, estimated quantities and costs.

The two breakwater plans were then evaluated against the planning constraints in Section 4.5.7 Breakwater Plans Analysis Summary. This section summarizes shoreline, maritime operations, energy islands, environmental and recreational impacts. Finally, in Section 4.8.5 Evaluation of Preliminary Array of Alternative Plans, decision

criteria of Completeness, Effectiveness, Efficiency and Acceptability were applied to all five Preliminary Array of Alternatives. Although they are complete, the breakwater plans have high construction costs with relatively low habitat output, failing to meet criterion of efficiency. Breakwater plans are acceptable to some stakeholders, but not acceptable to all. Specifically, the Navy and other navigational stakeholders associated with the Port of Long Beach have significant concerns of impacts that would stem from modifications to the breakwater. In conclusion, Section 4.5.9 identifies how the two breakwater plans were not carried forward due to constraints violations causing serious impacts and with significantly high costs.

The planning constraints and considerations for the Study include, in pertinent part:

- Constraint 1: Avoid negative impacts to U.S. Navy's operations including activities in support of national security and other missions.
- Constraint 2: Do not significantly reduce operational capacity for the ports, THUMS oil extraction islands or other existing maritime operations.

GR-8: Recreation Impacts

The goal of this Study is to, "Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the San Pedro Bay within the proposed Project Area of East San Pedro Bay." The specific planning objective is to, "Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within San Pedro Bay...." As identified in the Final IFR-EIS/EIR, restoration of rocky reef, kelp beds and eelgrass have the potential to impact recreational activities both negatively and positively. Because the authority and purpose of this project is to restore aquatic ecosystems, impacts to boating cannot be fully eliminated. However, efforts have been made to reduce boater impacts with minor modifications to the layout, and will continue to be made through ongoing stakeholder engagement and further inputs to the project layout. The Final Report includes an Environmental Commitment, RC-1, which states, "During the Pre-Construction Engineering and Design (PED) phase, USACE will meet with boating stakeholders to identify practicable design refinements that reduce and minimize impacts to recreational boating while still meeting project objectives and avoids violating project constraints."

However, the Final Report does consider recreational impacts in both the Final IFR Section 5.16, and in Appendix C: Economics and Social Considerations. In Appendix C, potential benefits and impacts to five broad categories of recreation have been identified and qualitatively assessed. These categories include beach/boardwalk, near-beach water activities (swimming, wading, etc.), paddle boarding, surfing and boating. The restoration features had a mixture of no impacts or benefits, positive benefits, and negative impacts for these five categories. Boating had more negative impacts as compared to the other types of recreation. The report acknowledges potential impacts to boaters and kite-boarders stem from the presence of submerged rocky reef and associated kelp. Twenty acres of nearshore rocky reefs range in depth from -3 feet to -10 feet below the MLLW surface elevation. Twenty-nine acres of open water rocky reef adjacent to Island Chaffee range in depths from -15 feet to -27 feet below the MLLW surface elevation. One hundred twenty-one acres of kelp will be located seaward of the breakwater and between the eastern tip of the breakwater and southwest of the Alamitos Bay Jetty.

Appendix C, Section 9.4 Incidental Recreation Analysis Results acknowledges boater impacts, "The scattered rock measure in the open water zone and breakwater zone are expected to alter the patterns of boating (speed, geographic distribution) in a minor way, moderately, or substantially depending on the size and type of vessel. The presence of the kelp forest and rocky reef would be anticipated to require boaters to avoid such features. Speed reduction may also be employed to avoid conflicts with the restoration features, and aids to navigation would be established through collaboration with the U.S. Coast Guard. Motor and sail boats with a deeper keel than 15' MLLW would be anticipated to have to avoid the features such as the nearshore reefs more than those boats with greater under keel clearance. Sail boats may also have to exercise greater care navigating around the

kelp beds especially if they are not equipped with a motor. Boaters may also have to reduce speeds in the vicinity of these project features. The kelp beds and rocky reefs will limit the paths for vessels in and out of ESPB and in and out of Alamitos Bay, and aids to navigation would be established."

To address public safety concerns, there is reference in the Final IFR Section 5.12, Aesthetics and Visual Resources, to placement of navigational aids. "At the same time as project construction, fixed aids to navigation (ATON) would be installed within the proposed Project Area indicating the locations of nearshore rocky reefs." Coordination with the U.S. Coast Guard is ongoing to identify, mark and chart all potential hazards as a result of project construction and to determine type of ATON.

#	*Name*	ORG	ID#*	COMMENTS	AGENCY RESPONSES	Report Location/s
1	*Scott Morgan*	State Clearinghouse and Planning Unit	1	Acknowledging compliance with State Clearinghouse review requirements for draft environmental docs.	Thank you for acknowledging that no state agencies submitted comments to the State Clearinghouse on the draft East San Pedro Bay Ecosystem Restoration Feasibility Study Integrated Feasibility Report – Environmental Impact Statement/Environmental Impact Report (IFR-EIS/EIR).	N/A
2	*Miya Edmonson*	Caltrans	2-1	To mitigate the potential impacts of truck trips on state facilities, Caltrans supports the implementation of EC TT-2, "If the inland 3M Quarry in Corona is used, truck traffic would be scheduled during off-peak travel hours to the extent practicable in order to reduce potential traffic impacts from transporting quarry stone over public roadways."	Thank you for your comment. The USACE appreciates the support of Environmental Commitment TT-2.	N/A
3	*Miya Edmonson*	Caltrans	2-2	Caltrans recommends individual truck trips from 3M Corona be staggered & that trucks are assigned to multiple routes instead of one, in order to minimize the cumulative impact of truck travel on state facilities.	Concur. The USACE added Environmental Commitment TT—3, which reads: "If the inland 3M Quarry in Corona is used, individual truck trips from 3M Quarry will be staggered, and trucks assigned to multiple routes instead of one, in order to minimize truck travel on public roadways."	Sections 5.13.1, 5.21
4	*Miya Edmonson*	Caltrans	2-3	Caltrans recommends vehicles hauling stone are covered, because spillover sediment can adversely impact state facilities.	Concur. The USACE added Environmental Commitment TT-4, which reads: "If the inland 3M Quarry in Corona is used, trucks hauling stone will be covered."	Sections 5.13.1, 5.21
5			2-4	As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit.	Concur. The USACE added Environmental Commitment TT-5, which reads: "If the inland 3M Quarry in Corona is used, a Caltrans transportation permit will be pursued should oversized-transport vehicles be required to travel on State highways."	Sections 5.13.1, 5.21
6			2-5	If construction traffic is expected to cause delays on State facilities, please submit a construction traffic management plan detailing these delays for Caltrans review. This plan should include the expected route(s) that trucks will use to travel from 3M Quarry to the project site, if quarry rock from Catalina Island is not used.	Concur. The USACE added Environmental Commitment TT-6 which reads: "If the inland 3M Quarry in Corona is used, a construction traffic management plan detailing expected delays on State facilities will be developed for Caltrans review."	Sections 5.13.1, 5.21
7	*Miya Edmonson*	Caltrans	2-6	Make every attempt to reduce the VMT associated with this project & in particular the potential VMT generated from construction trips.	Concur. The USACE added Environmental Commitment TT-7 which reads: "Every attempt will be made to reduce Vehicle Miles of Travel (VMT) from construction trips."	Sections 5.13.1, 5.21
8	*Craig Shuman*	CDFW	3-1	Department concerned Project isn't restoring habitat at locations it was lost & is instead creating habitat over functional soft bottom habitat & habitat that may not adequately support new altered habitat. No wetlands despite 93% loss. Wetland restoration is not included in Alt 8, not the TSP Alt 4A.	Non-concur. See General Response 1 (GR-1): Restoring Complex Habitats Historically in the Study Area. In addition, the habitat evaluation modeling (HEM), with input from subject matter experts, including resource agency representatives, validated suitability of habitat restoration sites for rocky reef, kelp and eelgrass. See Appendix D for further details on HEM development.	N/A
9	*Craig Shuman*	CDFW	3-2	Due to great loss in SA, the Department recommends wetlands be given additional consideration in Final IFR.	Non-concur. See GR-2: Why Wetlands Measures Are Not In the National Ecosystem Restoration (NER) Plan	N/A
10	*Craig Shuman*	CDFW	3-3	The Department recommends Final IFR include more detailed description of historical habitats within ESPB & identify each site improvement as habitat restoration or creation.	Concur. The Project Delivery Team (PDT) has looked further into available data on historical habitats within the Study Area and have expanded the Final Report with additional information.	Section 2.1.1

11	*Craig Shuman*	CDFW	3-4	The monitoring and adaptive management plan does not state what would happen if performance standards are not met within 10 years for the rocky reef habitats.	Non-concur. Appendix F page 2.2 states "If performance targets cannot be met within the ten-year period of cost-shared monitoring allowed by law, any additional monitoring and management will be a non-Federal responsibility." In addition, Appendix F page 3-3 section 3.5.3 states that "Adaptive Management Tasks: These could include activities such as (1) placement of additional hard substrate, 2) re-positioning of existing hard substrate to increase/decrease interstitial spacing, and (3) removal of nuisance species".	N/A
12	*Craig Shuman*	CDFW	3-5	Should the sections of the Project not be successful that include placement of structure, the Department recommends that financial assurance be put in place to pay for removal should success not be possible.	Non-concur. Project designs will be refined during the Pre-construction Engineering and Design (PED) phase to minimize risks and increase the probability of success of the project features in terms of realizing project benefits. The USACE anticipates addressing performance issues through monitoring and adaptive management following construction (see Appendix F). Long-term success of the project will rely on the non-Federal sponsor (NFS) to perform long-term maintenance. There will always be a risk that project elements may not fully realize the anticipated benefits. Should there be significant issues with the project at the same time as project construction, a study could be initiated to reevaluate and potentially modify the project. For these reasons, financial assurance is not needed beyond the NFS's responsibility for OMRR&R to ensure project success. Per ER 1105-2-100, 22 Apr 2000, E-31., Federal and Non-Federal Participation, "Non-Federal sponsors shall provide 100 percent of LERRDs, and operation, maintenance, repair, rehabilitation, and replacement (OMRR&R)." In addition, in Chapter 10 of the IFR-EIS/EIR, Recommendation, it states the non-Federal sponsor (City) will ensure the project remains viable long-term. Additionally, bullet f states that, "For so long as the project remains authorized, operate, maintain, repair, rehabilitate, and replace the project, or functional portions of the project, including any mitigation features, except as limited by Section 1161 of the Water Resources Development Act of 2016, (33 U.S.C. 2330a(e)), at no cost to the federal government, in a manner compatible with the project's authorized purposes and in accordance with applicable federal and state laws and regulations and any specific directions prescribed by the federal government."	N/A
13	*Craig Shuman*	CDFW	3-6	The Department is concerned that artificial reefs and habitat creation activities could attract invasive species. An invasive species performance standard, monitoring plan, and protocols should be added to the monitoring and adaptive management plan for each habitat type.	Partial concur. As described in the National Artificial Reef Plan (NOAA, 2007), the USACE will use project monitoring data to evaluate the performance of restored habitats (i.e., to assess if restored reefs are accomplishing their designed purpose) and in support of identifying appropriate actions if performance measures are not met or for selecting adaptive management actions. Performance measures described within the MAMP of the Final IFR-EIS/EIR (Appendix F) are consistent with or similar to currently published performance measures for restored marine ecosystem projects (e.g., NMFS, 2014 and Reed et al., 2006, 2017, and 2019). As such, the USACE considers these performance measures satisfactory to evaluate project performance and to determine whether adaptive management measures are needed. Within the Final IFR-EIS/EIR, language is provided in sections 2.2 and 3.5 of the MAMP pertaining to monitoring of non-native and/or invasive (e.g., nuisance) species abundance and distribution to inform decisions about whether the restoration is performing as intended (e.g., native cover measure) and, if not, what adaptive management measures can be taken to rectify the issue. In addition, within the Final MAMP in section 3.5 the removal of nuisance species is described as a possible adaptive management task to achieve performance criteria for restored habitats. However, predicted nuisance species currently existing within the proposed Project Area and the Southern California Bight were not identified for each of the restored habitats in the Draft IFR/EIS/EIR. To remedy this, the USACE has amended the monitoring outlined in the MAMP in the Final IFR-EIS/EIR to specifically include monitoring of non-native/invasive species of algae (e.g., Caulerpa spp., Sargassum horneri, etc.) and sessile invertebrates including bryozoans (e.g., Bugula neritina), mussels (e.g., Arcuatula senhousia), Pacific oyster (Crassostrea gigas), and tunicates (e.g., Botrylloides spp., Ciona spp., etc.). T	Appendix F Sections 2.2 and 3.5
14	*Craig Shuman*	CDFW	3-7	The Department is concerned about the performance standard for Habitat Type 3: Rocky Reef in Appendix F.	Thank you for your comment. Please see 15 below.	N/A
15	*Craig Shuman*	CDFW	3-8	The performance standard is that the area of exposed rocky reef substrate is sustained at 90 to 100 percent of the implementation area. This standard does not reflect any ecological or biological standard for success.	Non-concur. As described in the National Artificial Reef Plan (NOAA, 2007), the USACE will use project monitoring data to evaluate the performance of restored habitats (i.e., to assess if restored reefs are accomplishing their designed purpose) and in support of identifying appropriate actions if performance measures are not met or for selecting adaptive management actions. Performance measures described within the MAMP of the Final IFR-EIS/EIR (Appendix F) are consistent with or similar to currently published performance measures for restored marine ecosystem projects (e.g., Reed et al., 2006, 2017, and 2019). As such, the USACE considers these performance measures satisfactory to evaluate project performance and to determine whether adaptive management measures are needed.	N/A

16	*Craig Shuman*	CDFW	3-9	While biological communities and reef production will be monitored during years 3 and 5, they are not a part of the success criteria and the Department recommends biological success criteria be included should artificial reefs be pursued.	Non-concur. As described in the National Artificial Reef Plan (NOAA, 2007), the USACE will use project monitoring data to evaluate the performance of restored habitats (i.e., to assess if restored reefs are accomplishing their designed purpose) and in support of identifying appropriate actions if performance measures are not met or for selecting adaptive management actions. Performance measures described within the MAMP of the Final IFR-EIS/EIR (Appendix F) are consistent with or similar to currently published performance measures for restored marine ecosystem projects (e.g., Reed et al., 2006, 2017, and 2019). As such, the USACE considers these performance measures satisfactory to evaluate project performance and to determine whether adaptive management measures are needed.	N/A
17	*Craig Shuman*	CDFW	3-10	The Department is a permitting and resource agency and requests to be included on the AMT. While Appendix F notes that the Department's South Coast Region 5 should be included as a resource agency, the Department's Marine Region 7 should be included on the AMT.	Concur. We recognize that the California Department of Fish and Wildlife (CDFW) is a permitting and resource agency for the project. The USACE welcomes participation by both of the Department's Regions 5 (South Coast) and 7 (Marine) on the Adaptive Management Team, during the Monitoring and Adaptive Management Plan phase of the project (see Appendix F). Chapter 8: Public Involvement, Agency Coordination and Tribal Consultation has also been updated to reflect CDFW involvement in the monitoring and adaptive management phase of the project following completion of construction.	Section 8.3; App F Section 1.2.1.3
18	*Craig Shuman*	CDFW	3-11	The Department is concerned about kelp bed restoration through the placement of rocky habitat at this time without addressing the root cause of kelp loss in California. Multiple efforts are underway throughout California with varying levels of success to restore kelp habitat. Due to a variety of environmental factors such as loss of sea stars that predate on urchins, rising ocean temperatures, runoff and environmental contaminants, and invasive species, ecological conditions may not exist that support natural recruitment of giant kelp at the project site at this time. This may result in modifying and losing softbottom habitat, that while deemed less economically and ecologically important and more common, still plays an important ecological role in California's marine ecosystem.	Thank you for your comment.	N/A
19	*Craig Shuman*	CDFW	3-12	The Department recommends that the FEIS/FEIR explain how the study determined the potential success of kelp restoration using natural recruitment at this site under current environmental conditions.	Non-concur. Kelp restoration methods proposed for the ESPB Restoration Project are based on successful kelp restoration projects such as Reed et al. (2006, 2017, and 2019) where kelp was successfully restored to new rocky substrate up to a distance of 3.5 km from existing kelp beds. Similar to Reed et al. (2006, 2017, and 2019), rock substrate will be placed adjacent to existing kelp beds located along the eastern breakwater of the East San Pedro Bay where the passive transport of spores from Macrocystis pyrifera are expected to disperse approximately 0.4 km due to local current patterns and settle onto this new substrate and then develop into mature kelp. In addition, should recruitment not occur as predicted, Appendix F describes how kelp restoration will be actively managed should success not be optimal during the period of the MAMP (e.g., transplantation, etc.).	N/A
20	*Craig Shuman*	CDFW	3-13	In addition to the monitoring plan and success criteria described in Appendix F, the Department recommends the FEIS/FEIR include a phased approach that includes Department and other agency input at each step of the phase should the Project move forward to better understand how kelp may increase in East San Pedro Bay from habitat creation.	Concur. We recognize that the California Department of Fish and Wildlife (CDFW) is a permitting and resource agency and would welcome the inclusion of the Department's Marine Region 7 on all phases of the kelp restoration project design, implementation and adaptive management. Chapter 8 Public Involvement, Agency Coordination and Tribal Consultation has been updated to reflect CDFW and other resource agency involvement in subsequent project phases.	Section 8.3
21	*Craig Shuman*	CDFW	3-14	There is increasing interest from stakeholders to engage in kelp restoration activities. To ensure communication, a collaborate approach, and the appropriate review and permitting for these activities, the Department requests that all project applicants consult with the Department prior to initiating any kelp restoration activities.	Concur. We recognize that the California Department of Fish and Wildlife (CDFW) is a permitting and resource agency for project. As noted in Appendix F: Monitoring and Adaptive Management Plan, the Department's Regions 5 (South Coast) and 7 (Marine) will be invited to participate on the Adaptive Management Team, during this phase of the project following completion of construction. Monitoring and adaptive management includes kelp restoration activities. Chapter 8: Public Involvement, Agency Coordination and Tribal Consultation has also been updated to reflect CDFW involvement.	Section 8.3; App F Section 1.2.1.3
22	*Craig Shuman*	CDFW	3-15	The Department recommends the FEIS/FEIR include additional information on why eelgrass bed restoration is not being pursued at locations where eelgrass is currently located and in areas that do not need rocky reef habitat and sediment placement to protect the proposed new eelgrass habitat.	Non-Concur. The study took the approach of developing and utilizing a habitat evaluation model (See Appendix D) to identify the most suitable locations for restoring each habitat type including eelgrass. The most suitable locations, defined as "the ability of a particular habitat to support species of concern," (Appendix D: Habitat Evaluation and Model Documentation, pg. 6), were identified as being located along the Long Beach shoreline, coupled with the nearshore rocky reef shoals, to create the calm water conditions eelgrass needs to survive. This would essentially expand existing eelgrass beds, although that was not the intent. The study is not focused on enhancing existing eelgrass habitat but restoring habitat in its most suitable locations which have been identified by the model. Additionally, per a commitment to the NMFS, existing eelgrass and areas that previously supported eelgrass beds will be avoided.	N/A

23	*Craig Shuman*	CDFW	3-16	The Department recognizes that eelgrass restoration is challenging even in systems where eelgrass is already or historically located. For that reason, the Department recommends further analysis in the FEIS/FEIR of an alternative that includes expansion of existing eelgrass beds as opposed to creating new habitat for increased potential of success.	Non-concur. The study took the approach of developing and utilizing a habitat evaluation model (See Appendix D) to identify the most suitable locations for restoring each habitat type including eelgrass. The most suitable locations, defined as "the ability of a particular habitat to support species of concern," (Appendix D: Habitat Evaluation and Model Documentation, pg. 6), were identified as being located along the Long Beach shoreline, coupled with the nearshore rocky reef shoals, to create the calm water conditions eelgrass needs to survive. This would essentially expand existing eelgrass beds, although that was not the intent. The study is not focused on enhancing existing eelgrass habitat but restoring habitat in its most suitable locations which have been identified by the model. Therefore, further evaluation is not needed. Additionally, per a commitment to the NMFS, existing eelgrass and areas that previously supported eelgrass beds will be avoided.	N/A
24	*Craig Shuman*	CDFW	3-17	Should the Project move forward, the Department recommends, in addition to the Appendix F success criteria and monitoring plan, a phased process for eelgrass restoration within the Project's adaptive management plan to gauge success and improve eelgrass habitat. Collection and transplant of eelgrass requires a Scientific Collecting Permit from the Department.	Non-concur. Thank you for your recommendation. The eelgrass success criteria and monitoring plan are based on the National Marine Fisheries Service's California Eelgrass Mitigation Plan and the mitigation criteria provided within. Also, thank you for your comment on CDFW's Scientific Collecting Permit.	N/A
25	*Craig Shuman*	CDFW	3-18	Construction level impacts should be avoided or minimized to the greatest extent feasible. The FEIS/FEIR should include details for barge anchor placements, best management practices, and dredging plans. This should include, but not be limited to, sensitive species and habitat avoidance plans, marine mammal monitoring, and an oil spill and prevention response plan. Habitats that should be avoided include existing eelgrass, potential eelgrass habitat, giant kelp habitat, aggregations of invertebrates (e.g. echinoderm and bivalve beds) to the extent feasible.	Concur. Best management practices, including the monitoring and avoidance of various special-status species and Essential Fish Habitat (e.g., the Green Sea Turtle, eelgrass, etc.), have been coordinated between the USACE and NMFS to minimize the impact of construction on these resources and are provided in the Final IFR in Sections 5.3.1, 5.6.1, 5.7.1, 5.21 and Appendix A. In addition, the Final IFR-EIS/EIR will include a high-level construction detail of the Recommended Plan. Environmental Commitments include provisions for the preparation of spill prevention plans, monitoring plans, etc. prior to the onset of any construction.	Section , 5.21, WQ-5 MH-1 SP-3; Appendix A
26	*Craig Shuman*	CDFW	3-19	Additionally, care should be taken to identify and avoid areas that have natural cobble and boulder.	Concur. Detailed bathymetric surveys will occur during PED phase. Information from these surveys will guide identification of areas to avoid such as areas with natural cobbles and boulders. This is reflected in Environmental Commitment GEO-3 and located in Section 5.2.1 and 5.21.	Sections 5.2.1, 5.21
27	*Craig Shuman*	CDFW	3-20	The Department recommends the FEIS/FEIR include habitat/species impact avoidance and minimization plans, maps, and diagrams showing mapped out habitat and species locations. Avoidance and minimization measure plans should include pre-and post-construction surveys for the specific habitat and species to be protected. Feasible methods for transplanting or re-locating species should be considered to avoid impacts.	Partial concur. Best management practices, including the monitoring and avoidance of various special-status species and Essential Fish Habitat (e.g., the Green Sea Turtle, eelgrass, etc.), have been coordinated between the USACE and NMFS to minimize the impact of construction on these resources. Environmental commitments are provided in the Final IFR in Sections 5.6.1, and 5.7.1 detailing pre-construction surveying and avoidance and minimization measures. Appendix F details post-construction monitoring and adaptive management for restored habitats.	Section WQ-5 MH-1 SP-3; Appendix F
28	*Craig Shuman*	CDFW	3-21	Finally, the Department recommends finalizing habitat/species protection plans in coordination with the Department prior to construction.	Concur. We recognize that the California Department of Fish and Wildlife (CDFW) is a permitting and resource agency and would welcome the inclusion of the Department's Marine Region 7 on all phases of the project design, implementation and adaptive management. Chapter 8 Public Involvement, Agency Coordination and Tribal Consultation has been updated to reflect CDFW and other resource agency involvement in subsequent project phases.	Section 8.3
29	*Jean Prijatel*	EPA	4-1	We note that Alt Plan 4A does not include restoration of any scarce coastal wetland habitat type. The EPA recommends that the Corps reconsider restoring a portion of the coastal wetland/tidal saltwater marsh, presented as a component of Alt 8, as an additional commitment with Alt 4A.	Non-concur. See GR-2: Why Wetlands Measures Are Not In the NER Plan.	N/A
30	*Jean Prijatel*	EPA	4-2	Consider implementation of the 10-acre wetland as part of Alt 4A	Non-concur. See GR-2: Why Wetlands Measures Are Not In the NER Plan. This response applies to any wetland, regardless of its size.	N/A

31	*Jean Prijatel*	EPA	4-3	Include the analysis of the impacts, costs & benefits of implementing just the 10-acre scenario in FEIS (vs 10 & 42 acre wetland scenarios together) to inform the public & decision-makers about this option.	Partial concur. Information about the 10-acre wetland is included in the Final IFR-EIS/EIR. Cost and benefits for both wetlands are shown in Table 4-4: Cost and Output by Measure, Section 4.3.4. The economic analysis identified Best Buy Plans that included both a small tidal wetland in the L.A. River Zone and a larger tidal wetland in the Port Zone. Please refer to Table 4-6: Incremental Cost Analysis of Best Buy Plans as well as Figure 4-8: Best Buy Plans for comparison of the Best Buy Plans, both in Section 4.4.1. Best Buy Plan 7 added the smaller tidal wetland, and Best Buy Plan 8 added the larger tidal wetland. These wetland features are also included in all successively larger Best Buy Plans. Ultimately, Best Buy Plan 8 was carried forward as a Final Array Plan, as it included both the smaller and larger tidal wetlands and both were similar in terms of cost effectiveness and efficiency (in terms of average annual costs per habitat unit). Alternative 8, which included both of these wetlands, was not selected as the Tentatively Selected Plan primarily because these features had a much higher average annual cost per habitat unit than the features included in Alternative 4A and had much higher operation and maintenance costs. In consideration of cost effectiveness and efficiency, reasonableness of cost, and sustainability, the additional costs for larger scale plans than Alternative 4A that included the wetlands was not considered worth the investment in consideration of the added benefits.	N/A
32	*Jean Prijatel*	EPA	4-4	Continue working with USFWS and other members of TAC to prioritize projects that restore native habitats in the project location and best meet specific planning objectives of this study and Scarce Habitat Plan. (Appendix H CAR/PAL)	Partial concur. USACE is happy to work with the USFWS and members of the TAC to restore native habitats within the San Pedro Bay. Key stakeholders, including resource agencies, have provided input into the Recommended Plan, prior to release of the Final IFR-EIS/EIR and are welcome to participate as a member of the Adaptive Management Team following construction of the project, as stated in Appendix F and the Final Report, Section 8.3. The USACE welcomes a collaborative stakeholder engagement approach to the review and management process. Chapter 8, Public Involvement, Agency Coordination and Tribal Consultation has been updated to reflect USFWS and other resource agency involvement in subsequent project phases.	Section 8.3
33	*Jean Prijatel*	EPA	4-5	In FEIS & ROD, commit to beneficially reusing dredge and fill material from nearby dredging of port and navigation channels to fullest extent practicable, as testing & timing allow.	Concur. The USACW (and the City) are committed to beneficially reusing dredge material to the maximum extent practicable. Environmental Commitment GEO-2 in Section5.2.1 and 5.21 of the Final IFR-EIS/EIR addresses this commitment.	Sections ; 5.2.1 and 5.21
34	*Jean Prijatel*	EPA	4-6	Consider updating the cost/benefit analysis in FEIS to include an add'l cost est. of applying direct placement of dredged materials from Corps POLB Deepening & Naval Weapons Station Seal Beach Expansion proposal (without the need to take material to the Surfside/Sunset Borrow pits first and then retrieve materials later for construction). Indicate any associated cost & time savings in the event direct placement of fill material is determined to be feasible.	Non-concur. The USACE (and the City) are committed to beneficially reusing dredge material to the maximum extent practicable. Environmental Commitment GEO-2 in Section 5.2.1 of the Final IFR-EIS/EIR addresses this commitment. The possibility of using sediments from other USACE projects would be evaluated during PED and a decision made based on sediment quality and the timing of construction for both projects. As of this Final Report, the Port of Long Beach (POLB) Deepening Project is no longer a viable source of dredge material due to the timing of the two projects. POLB construction will have ended before ESPB construction begins. No other specific projects have been identified that match construction timing. If beneficial use sites become available, the USACE would consider a supplemental analysis. Inclusion of the potential cost savings cannot be applied due to the uncertainty of project alignment in the future.	Section 5.2.1
35	*Jean Prijatel*	EPA	4-7	If any wetland restoration measures prove cost effective & practicable, commit in the FEIS & ROD to maintain both the tidal salt marsh interior & structural components, such as caisson units damaged by large waves or components scoured or shifted during storm events. Include habitat maintenance, such as cleaning & removal of unwanted species & trash, as well as replacement of sediments lost from the system by tidal currents.	Thank you for your comment. Please see GR-2: Why Wetlands Measures Are Not In the NER Plan.	N/A
36	*Jean Prijatel*	EPA	4-8	In the ROD, commit to designing each restorative measure with a consideration of specific needs to preserve functions & services over time & identify anticipated "Enhancements" each measure may need due to changing conditions. E.g., rocky reef may need heavier or more stone to maintain requirements, sunlight requirements may need to be adjusted to accommodate rising sea levels.	Thank you for your comment. In Appendix F, adaptive management measures (stone replacement, etc.) are identified to ensure continued functioning and services over time. Continuing during the pre-construction and engineering design phase, known and predicted effects of climate change will be further analyzed and included. Long-term, the City would be committing to the costs to maintain the project. O&M is the non-Federal sponsor's responsibility. Per ER 1105-2-100, 22 Apr 2000, E-31., Federal and Non-Federal Participation, "Non-Federal sponsors shall provide 100 percent of LERRDs, and operation, maintenance, repair, rehabilitation, and replacement (OMRR&R)."	N/A
37	*Jean Prijatel*	EPA	4-9	Commit to maintaining or restoring components of each implemented measure that may become inundated or damaged by large waves or storm events.	Thank you for your comment. In Appendix F, adaptive management measures (stone replacement, etc.) are identified to ensure continued functioning and services over time. Continuing during the pre-construction and engineering design phase, known and predicted effects of climate change will be further analyzed and included. Long-term, the City would be committing to the costs to maintain the project. O&M is the non-Federal sponsor's responsibility. Per ER 1105-2-100, 22 Apr 2000, E-31., Federal and Non-Federal Participation, "Non-Federal sponsors shall provide 100 percent of LERRDs, and operation, maintenance, repair, rehabilitation, and replacement (OMRR&R)."	N/A

38	*Bryant Chesney*	NOAA NMFS	5-1	There is incomplete/incorrect information regarding green sea turtles in the project area. For example, on page 5-84, the IFR indicates that 'Sporadic sightings of live sea turtles have been reported in Los Angeles-Long Beach Harbor in the past; however, none had been observed during the past 20 years (see Table 5-17); however, a dead leatherback sea turtle was collected recently in the area.' This is not consistent with the information I have verbally relayed and by email (e.g., 8/16/19 and 8/30/19). It is not critical that you provide additional information and/or revisions on green sea turtle presence to complete our ESA consultation process as we can help with that information need, but please plan to make appropriate changes in your final IFR/EIS. I presume our ESA consultation will be complete before issuance of the final IFR, so our response will include more detailed information that you may use.	Concur. Thank you for your comment and for providing clarifying materials on green sea turtles. The USACE has updated Section 3.7 of the Final IFR-EIS/EIR.	Section 3.7
39	*Bryant Chesney*	NOAA NMFS	5-2	I have some basic project clarification requests and am summarizing below in bullet form: Please estimate when construction would begin and end. I see that the Chief's report milestone is in August 2021. I understand there may be some uncertainty regarding project timing given the need for future authorization, but we need to at least be able to estimate the timing of the overall action in relation to other project activities that are affecting the environmental baseline.	Concur. Construction is estimated to begin 2026 and is predicted to end in 2039, with one year of hiatus due to the 2028 Olympics. Additional detailed schedule for the Recommended Plan is in the Final IFR-EIS/EIR and Appendix A, Figure 0-1: Preliminary Design & Construction Schedule.	Section 6.3, App A Section Figure 9-2
40	*Bryant Chesney*	NOAA NMFS	5-3	Does your defined project area include the Surfside/Sunset borrow site? I can't find a figure clearly delineating the borrow site location in your figures. Please provide a figure of the borrow site in relation to study area and restoration components.	Concur. Yes, the borrow site includes Surfside/Sunset. Borrow area figure and transportation routes have been included in the Final IFR-EIS/EIR (Section 6.3; Figure 6-2) and Appendix A (Figure 9-5).	Section 6.3 App A: Fig 9-5
41	*Bryant Chesney*	NOAA NMFS	5-4	Eelgrass is important foraging habitat for green sea turtles. The project has the potential to impact eelgrass habitat (0.5 acres), so some direct loss may occur. Adverse effects to eelgrass could potentially be a form of harassment. The associated environmental commitment and narrative to avoid/minimize impacts to eelgrass is ambiguous. - Please clarify how you are defining eelgrass habitat (e.g., CEMP definition or something else)	Concur. Eelgrass habitat is defined per the NOAA Fisheries' California Eelgrass Mitigation Policy and Implementing Guidelines (CEMP) dated October, 2014. This information has been included in the Final IFR-EIS/EIR along with avoidance and minimization measures for eelgrass. Please see MH-1 in Section 5.6.1.	Section 5.6.1
42	*Bryant Chesney*	NOAA NMFS	5-5	Please clarify if you are committing to avoid the areas mapped as eelgrass habitat by Merkel (2017) (i.e. the comprehensive eelgrass survey in East San Pedro Bay), and any future pre-construction surveys performed for this project. The draft environmental commitment appears to indicate avoidance, if feasible. Given the project purpose (e.g., creation/restoration), please explain why avoidance of direct impacts would not be feasible. Please consider avoidance of direct impacts based on CEMP definition utilizing all available data, and remove 'if feasible' language if the USACE believes such avoidance is feasible.	Concur. USACE believes avoidance of eelgrass is possible and "If feasible" has been removed from the Final IFR-EIS/EIR. Environmental Commitment MH-1 located in Section 5.6.1 of the Final IFR-EIS/EIR states the following: A pre-construction survey would be performed to document eelgrass extent in the areas of nearshore reef placement. If eelgrass is present or was previously present at a site according to Merkel et al. (2017), alternative locations of rocky reef and sand placement a minimum distance of 50 feet beyond the margin of existing and previously existing eelgrass habitat will be established during the detailed design phase as well as during construction to avoid impacts to all existing or previously existing eelgrass habitat.	Section 5.6.1
43	*Bryant Chesney*	NOAA NMFS	5-6	Please clarify the duration and seasonal timing of the dredging	Concur.As described in SP-3, dredging is expected to occur on a 24-hour per day basis. The USACE will attempt to sequence dredging activities during winter months (November – March 31) when Green Sea Turtles (Chelonia mydas) (GST) are generally expected to be located within the warm waters of the San Gabriel River adjacent to and downstream of power plants (Crear et al. 2016). However, due to the exposure of the work area to open ocean wave conditions, adverse wave and inclement weather may preclude safe working conditions during winter months, necessitating that dredging activities extend into the non-winter months.	Section 5.7.1
44	*Bryant Chesney*	NOAA NMFS	5-7	Please describe in greater detail the potential dredging equipment and how it would be carried out.	Concur. As described in SP-3, the USACE will utilize a clamshell dredge for all dredging associated with the East San Pedro Bay Ecosystem Restoration Project (Project) because this type of equipment has been determined to be well suited based on the quantity and the location of the work. A detailed description of dredging for the Recommended Plan is provided Appendix A Section 9.3.3.	App A : Section 5.7.1; 9.3.3

45	*Bryant Chesney*	NOAA NMFS	5-8	Please describe any operational measures and/or environmental commitments that would be implemented to avoid/minimize mortality.	Concur. The following measures will be implemented to avoid or minimize impacts to the Federally listed threatened East Pacific distinct population segment (DPS) of Green Sea Turtles (GST). These Environmental Commitments have been included in the Final IFR/EIS/EIR as Environmental Commitment SP-3 in Section 5.7.1: • The USACE will utilize a clamshell dredge for all dredging associated with the East San Pedro Bay Ecosystem Restoration Project because this type of equipment has been determined to be well suited based on the quantity and the location of the work. • Dredging is expected to occur on a 24-hour per day basis. The USACE will attempt to sequence dredging activities during winter months (November – March 31) when Green Sea Turtles (Chelonia mydas) (GST) are generally expected to be located within the warm waters of the San Gabriel River adjacent to and downstream of power plants (Crear et al., 2016). However, due to the exposure of the work area to open ocean wave conditions, adverse wave and inclement weather may preclude safe working conditions during winter months, necessitating that dredging activities extend into the non-winter months. • When dredging and nearshore placement operations occur, a qualified biologist with experience monitoring GSTs and marine mammals will be on site to monitor for the presence of GSTs and marine mammals. The monitor will have the authority to cease or alter operations to avoid impacts to GSTs and marine mammals. • Adequate lighting will be provided during nighttime operations to allow the monitor to observe the surrounding area effectively. • During dredging and placement operations, the USACE will designate 30-meter monitoring zones around both the dredge site and nearshore placement sites. • All vessels associated with the project will not exceed eight (8) knots inside the breakwater. • Daily visual monitoring within the designated 30-meter monitoring zones will commence prior to the start of in-water construction activities and after each construction work break of more than 30 minutes. • If a GST is observed within the vicinity of the project site during project operations, all appropriate precautions shall be implemented to avoid or minimize unintended impacts. These precautions include, but are not limited to: o Cessation of operation of any moving equipment that is observed within 30 meters of a GST. o Immediate cessation of operation of any mechanical dredging equipment if a GST is observed within 30 meters of the equipment. o Operations may not resume until the GST has departed the monitoring zone by its own accord or has not been observed for a 15-minute period of time. • Biological monitors will maintain a written log of all GST and marine mammal observations during project operations. This observation log will be provided to the Corps and NMFS as an attachment to the post-construction report for the project. Each observation log will contain the following information: 1. Observer name and title; 2. Type of construction activity (maintenance dredging, etc.); 3. Date and time animal first observed (for each observation); 4. Date and time observation ended (for each observation). An observation will terminate if (1) an animal is observed exiting the monitoring zone or (2) after a 15-minute period of no observation (assumption is that animal has exited, but was not observed to do so); 5. Location of monitor (latitude/longitude), direction of animal in relation to the monitor, and estimated distance (in meters) of animal to the monitor; 6. Nature and duration of equipment shutdown. • Any observations involving the potential “take” of GSTs or marine mammals will be reported to the Corps within 10 minutes of the incident and to the NMFS stranding coordinator immediately. • The Corps and its contractors will inform all personnel associated with the construction work of the potential presence of GSTs and marine mammals and the requirement to monitor a 30-meter designated monitoring zone around all in-water equipment and vessels to avoid interactions with, or “take” of GSTs and marine mammals. Prior to the commencement of on-site construction work, all contractor personnel (including sub-contractor personnel) will be trained by a USACE biologist (or qualified biologist approved by the USACE) on GST and marine mammal identification and observation protocols to be followed in the event that GSTs or marine mammals are sighted. All construction personnel	Section 5.7.1

					are responsible for observing and reporting the presence of GSTs and marine mammals during all water-related construction activities. • The contractor will implement an Environmental Protection Plan that will include a GST and Marine Mammal Monitoring and Avoidance Plan and an employee training program on GST and marine mammal observation protocols, avoidance, and minimization measures.	
46	*Bryant Chesney*	NOAA NMFS	5-9	Please clarify whether dredging would occur 24/7 or during the daylight hours only.	Concur. Environmental Commitment SP-3 in Section 5.7.1 in the Final IFR-EIS/EIR describes the following for dredging: Dredging is expected to occur on a 24-hour per day basis. The USACE will attempt to sequence dredging activities during winter months (November – March 31) when Green Sea Turtles (Chelonia mydas) (GST) are generally expected to be located within the warm waters of the San Gabriel River adjacent to and downstream of power plants (Crear et al., 2016). However, due to the exposure of the work area to open ocean wave conditions, adverse wave and inclement weather may preclude safe working conditions during winter months, necessitating that dredging activities extend into the non-winter months.	Section 5.7.1
47	*Bryant Chesney*	NOAA NMFS	5-10	Please describe the duration and timing of individual nearshore restoration components to better understand the effects and exposure of these actions to turtles.	Concur. More detailed construction schedule will be developed during the PED phase of the project. A detailed prospective construction schedule has been included in Appendix A, Figure 0-2: Preliminary Design & Construction Schedule.	App A: Section 9.3.1 & 9.3.3
48	*Bryant Chesney*	NOAA NMFS	5-11	How long will the nearshore reef placement and sediment placement occur and what time of year will the work be done?	Concur. Depending on the accepted plan, nearshore reef placement and sediment placement can occur at various times. A detailed prospective construction schedule has been included in Appendix A.	App A: Section 9.3.1 & 9.3.3
49	*Bryant Chesney*	NOAA NMFS	5-12	Please describe methods/procedures in greater detail so that we better understand how it would avoid/minimize effects to turtles and/or validate assumptions made in your effects analysis.	Concur. Avoidance and minimization measures have been included in the Final IFR/EIS/EIR as Environmental Commitment SP-3 in Section 5.7.1. Please see 5-8 above.	Section 5.7.1
53	*Tom Jacobsen*	Jacobsen Pilot Service	6-1	I am writing to SUPPORT the USACE decision for Alternative 4A, the Tentatively Selected Plan, which maximizes ecosystem restoration benefits for the East San Pedro Bay compared to costs, while keeping the breakwater in place so it can continue to provide important benefits and protection to the City and Port. All of our 20 professional ship pilots and 11 boat operators who work the waters of Long Beach 24x7 know the importance of keeping the breakwater as it is. We support the USACE and the Tentatively Selected Plan.	Thank you for your comments and support of the NER Plan, which has been identified as the Recommended Plan in the Final IFR. The full response can be found GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out.	N/A
54	*J. Kip Louttit*	Marine Exchange of Southern CA	7-1	The 20 employees of the Marine Exchange, several of whom who have worked for the Marine exchange for more than 20 years, have vast experience with these concepts and support the decision of the COE. It's critical to keep the breakwater unchanged.	Thank you for your comments and support of the NER Plan, which has been identified as the Recommended Plan in the Final IFR. The full response can be found GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out.	N/A
55	*Michele S. Grubbs*	PMSA	8-1	The Pacific Merchant Shipping Association (PMSA) supports USACE decision selecting Alt 4A, the TSP, which maximizes ecosystem restoration benefits for the ESPB compared to costs. (…) We are pleased to support Alt 4A because it balances protecting a critical seaport and jobs while restoring 200 acres of kelp beds, rocky reef & eelgrass habitat within the ESPB.	Thank you for your comments and support of the NER Plan, which has been identified as the Recommended Plan in the Final IFR. The full response can be found in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out.	N/A
56	*Sal Ferrigno*	SSA Terminals/ Pacific Maritime Services	9-1	SSA Terminals/Pacific Maritime Services supports the study by the U.S. Army Corps of Engineers to the East San Pedro Bay as presented with no additional modifications to the break wall.	Thank you for your comments and support of the NER Plan, which has been identified as the Recommended Plan in the Final IFR. The full response can be found in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out.	N/A
57	*Daniel J. Hodge*	Recreational Boaters of CA	10-1	RBOC acknowledges and appreciates the objectives of this project to restore 18 square miles of the ESPB from approximately the Port of Long Beach to Alamitos Bay in a manner that restore aquatic ecosystems in a marine environment, and increases abundance and biodiversity of marine populations in ESPB.	Thank you for your comment.	N/A

58	*Daniel J. Hodge*	Recreational Boaters of CA	10-2	RBOC is concerned that elements in this project, which include additional rock habitat structure that would support kelp, eelgrass and other sensitive species or habitat types, would have a significant, negative impact on boating.	Partial concur. Please see GR-8: Recreation Impacts for more information on how boater impacts have been acknowledged in the Final Report. Alternative 4A has been identified as the Recommended Plan and meets the project objectives of ecosystem restoration. Due to this project authority and purpose for ecosystem restoration, not all impacts can be eliminated. However, as noted in the report, boater impacts are acknowledged, and efforts have been and will continue to be made to reduce those impacts. As indicated in the Final report with Environmental Commitment RC-1 in Section 5.16.1, during the Pre-Construction Engineering and Design (PED) phase, USACE will meet with boating stakeholders to identify practicable design refinements that reduce and minimize impacts to recreational boating while still meeting project objectives and avoids violating project constraints. In addition, there is reference in the Final IFR Section 5.12, Aesthetics and Visual Resources, to placement of navigational aids. "At the same time as project construction, fixed aids to navigation (ATON) would be installed within the proposed Project Area indicating the locations of nearshore rocky reefs." Coordination with the U.S. Coast Guard is ongoing to identify, mark and chart all potential hazards as a result of project construction and to determine type of ATON.	Sections 5.12; 5.16.1
59	*Daniel J. Hodge*	Recreational Boaters of CA	10-3	RBOC therefore requests that: The RBOC organization be included as a stakeholder in any process going forward.	Partial concur. The planning process included multiple public involvement opportunities as noted in the Final IFR Section 8.1 Public Involvement Process. The USACE and the City of Long Beach conducted outreach in attempts to ensure as many affected stakeholders as possible were notified of the project and for project updates. The possibility exists that some stakeholders may have inadvertently been omitted from direct outreach. Project information has been available on both the USACE and City websites since project inception in 2016. https://www.spl.usace.army.mil/Missions/Civil-Works/Projects-Studies/East-San-Pedro-Bay-Ecosystem-Restoration-Study/ https://www.longbeach.gov/citymanager/tidelands/bay-ecosystem-study/ As a result of this and other similar comments received during the Draft IFR public comment period, the recreational boaters were invited to a special meeting January 2021 focused on their concerns prior to finalization of the Final IFR-EIS/EIR. Going forward, as indicated in the Final Report with Environmental Commitment RC-1 in Section 5.16.1, during the Pre-Construction Engineering and Design (PED) phase, USACE will meet with boating stakeholders to identify practicable design refinements that reduce and minimize impacts to recreational boating while still meeting project objectives and avoids violating project constraints.	Section 5.16.1;8.1
60	*Daniel J. Hodge*	Recreational Boaters of CA	10-4	2. The Tentatively Selected Plan (Alternative 4A) be revised to ensure that the negative impacts on recreational boating are eliminated as the project moves forward. The provisions are set forth on P367, Lines 18-21.	Non-Concur. Alternative 4A has been identified as the Recommended Plan and meets the project objectives of ecosystem restoration. Due to this project authority and purpose for ecosystem restoration, not all impacts can be eliminated. Therefore, the plan will remain the same in the Final Report as presented in the Draft report. However, as noted in the report, boater impacts are acknowledged, and efforts have been and will continue to be made to reduce those impacts. Please see GR-8: Recreation Impacts for more information. As indicated in the Final Report with Environmental Commitment RC-1 in Section 5.16.1, during the Pre-Construction Engineering and Design (PED) phase, USACE will meet with boating stakeholders to identify practicable design refinements that reduce and minimize impacts to recreational boating while still meeting project objectives and avoids violating project constraints.	Section 5.16.1
61	*Seamus Ian Innes*	Surfrider Foundation	11-1	While USACE guidelines allow and encourage ecosystem restoration, they prohibit ecosystem improvement or enhancement. The USACE should revisit the Study to eliminate ecosystem enhancement alternatives and re-insert the water circulation, tidal circulation, and water clarity goals and objectives	Thank you for your comments and for providing specific page and line numbers which aided in evaluating and responding to all comments contained herein. Non-Concur. For the reasons stated in GR-1: Restoring Complex Habitats Historically in the Study Area, each of the Final Array of Alternatives meet the USACE guidance for ecosystem restoration alternatives and therefore were not revisited. In addition, for the reasons stated in GR-5: Reconsider Improvements to Circulation and Water Quality, goals and objectives have remained the same.	N/A
62	*Seamus Ian Innes*	Surfrider Foundation	11-2	The USACE should re-analyze alternatives under the assumption that water column and sandy bottom habitats have value. By preemptively excluding these habitats, the Draft Report directly caused breakwater alternatives to fail in the alternatives comparison. According to CEQA, the Draft Report must analyze a range of alternatives. Alternatives must be feasible and capable of meeting most of the basic project objectives while avoiding or substantially lessening project impacts.	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for a full explanation of why sandy bottom and water column habitat were screened out. Also see GR-7: Breakwater Plans in the Plan Formulation Process for how breakwater plans were fully included and properly screened out. Study objectives are to restore complex habitats, which does not include sandy bottom habitat which is abundant. Breakwater plans were not carried forward into the Final Array of Alternatives due to high construction costs with relatively low habitat output, failing to meet criterion of efficiency. The team adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones. The study meets both NEPA and CEQA requirements for analysis of a reasonable range of alternatives.	N/A

63	*Seamus Ian Innes*	Surfrider Foundation	11-3	By excluding critical habitats, Surfrider is concerned the USACE is changing the scope of the project to better meet the desired results of the analysis. Another way of saying it is the USACE modified their scope of work to favor certain alternatives and exclude other alternatives. Sadly, this approach is all too common in planning and engineering, but more importantly this violates the intent of CEQA/NEPA. Omitting reasonable and practicable alternatives not only undermines bedrock environmental laws, but the USACE has missed a critical aspect of NEPA by not clearly explaining why omitted alternatives are not reasonable (or prudent or practicable), and provide thorough analysis and details as to why alternatives were not selected.	Non-concur. The USACE disagrees with the comment that we modified the scope of work to favor certain alternatives and exclude other alternatives. The team adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones. The study meets both NEPA and CEQA requirements for analysis of a reasonable range of alternatives. See GR-7: Breakwater Plans in the Plan Formulation Process for how breakwater plans were fully included and properly screened out.	N/A
64	*Seamus Ian Innes*	Surfrider Foundation	11-4	Page xi. Line 24-29, Figures ES-1, ES-2. Page 4-3, Lines 7-14. If the local sponsor is the City of Long Beach, why does the Project Area include Seal Beach and Anaheim Bay? Is it expected that the local sponsor would build a project for another city?	Thank you for your comment. Ecosystem restoration opportunities need to be explored beyond jurisdictional boundaries to satisfy criteria of a complete plan that fully addresses ecosystem restoration planning objectives. See the 6-step planning process, step 3, in ER 1105-2-100. For this reason and because the team did not want to preclude possible restoration opportunities, the team drew a larger proposed Project Area, extending beyond the city boundaries of Long Beach. At the time this boundary was drawn, alternatives were not developed, and locations of restoration measures were not yet determined. Restoration measures do not need to be located within every corner of the proposed Project Area boundary. The non-Federal sponsor is expected to obtain the rights prior to construction and maintain the project after its completion.	N/A
65	*Seamus Ian Innes*	Surfrider Foundation	11-5	If there is a good reason to include waters off Seal Beach in the Project area, then why doesn't the Project Area extend through Cabrillo Beach.	Thank you for your comment. Cabrillo Beach is within the broader Study Area. As stated more fully in GR-1: Restoring Complex Habitats Historically Present in the Study Area, the proposed Project Area represents the largest remaining undeveloped open water area within the bay suitable for large-scale restoration. ESPB is not subject to ecosystem stressors of existing ports, infrastructure, and intense vessel traffic found in the area of Cabrillo Beach.	N/A
66	*Seamus Ian Innes*	Surfrider Foundation	11-6	Why is the Study Area larger than the Project Area?	Thank you for your comment. See GR-1: Restoring Complex Habitats Historically Present in the Study Area for a full explanation of the purpose of the Study Area versus the proposed Project Area.	N/A
67	*Seamus Ian Innes*	Surfrider Foundation	11-7	Why does the Study Area include regions outside of the local sponsor's Jurisdiction?	Thank you for your comment. Ecosystem restoration opportunities need to be explored beyond jurisdictional boundaries to satisfy criteria of a complete plan that fully addresses ecosystem restoration planning objectives. See the 6-step planning process, step 3, in ER 1105-2-100. The Study Area is inclusive of a broader region than the proposed Project Area as more fully explained in GR-1: Restoring Complex Habitats Historically in the Study Area.	
68	*Seamus Ian Innes*	Surfrider Foundation	11-8	Page xi, Lines 32-36; Page 2-1, Lines 28-31. We strongly object to the removal of water circulation, tidal circulation, and water clarity from the list of project goals and objectives. These were in early versions of the goals and objectives from April 2016. Water quality is specifically stated as a desirable component of ecosystem structure in the USACE Planning Guidance Notebook from 2000.	Thank you for your comment. See GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for a full explanation of why circulation was once in the project objectives, and why water quality is not an ecosystem restoration objective in the context of this study. It is for the reasons stated in GR-5 that project goals and objectives will not be reconsidered.	N/A
69	*Seamus Ian Innes*	Surfrider Foundation	11-9	Page xi, Line 37. The 1996 USACE Planning Manual excludes enhancement of ecosystems or "improve aquatic ecosystem". This Study purpose violates Corps guidance.	Non-concur. The USACE disagrees with the statement, "This Study purpose violates Corps guidance." See GR-1: Restoring Complex Habitats Historically in the Study Area for a full explanation of how the study complies with the USACE guidance on ecosystem restoration. The PDT adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones.	N/A
70	*Seamus Ian Innes*	Surfrider Foundation	11-10	Page xiii, Lines 1-12. The stated CEQA objectives for the Study are overly narrow, inconsistent with the Study purpose, developed in collaboration with the local sponsor (City of Long Beach), and foreordain selection of an ecosystem enhancement alternative over ecosystem restoration alternative.	Non-concur. Stated CEQA objectives comply with CEQA guidelines.	N/A

71	*Seamus Ian Innes*	Surfrider Foundation	11-11	Page xiii, Lines 30-33. It states that measures were filtered using P&G 1983. How can this be since those 1983 Principles and Guidelines only considered National Economic Development (NED) guidelines but did not include National Ecosystem Restoration (NER) guidelines, which are the basis of any ecosystem restoration study?	Thank you for your comment. 1983 Principles and Guidelines lays out the evaluation criteria for the National Economic Development. The Planning Guidance Notebook, ER 1105-2-100, broadens its use for any of the accounts including NER. The Final IFR-EIS/EIR was updated with this clarification.	ES.4
72	*Seamus Ian Innes*	Surfrider Foundation	11-12	Page xiii, Lines 35 – 41. Why was sandy bottom habitat excluded from the habitat measures By excluding this habitat the Draft Report directly cause all breakwater alternatives to fail in alternatives comparison.	Non-concur. The USACE disagrees with the statement, "By excluding this habitat the Draft Report directly cause all breakwater alternatives to fail in alternatives comparison." See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for a full explanation of why breakwater plans were not carried forward into the Final Array of Alternatives due to high construction costs with relatively low habitat output, failing to meet criterion of efficiency.	N/A
73	*Seamus Ian Innes*	Surfrider Foundation	11-13	Page xiv, Lines 15, 16. This is a circular argument. There were no habitat benefits from breakwater reconfiguration since the habitats that would benefit from breakwater reconfiguration were removed from the listed scope of work early on in the Study, We believe that wave driven sandy bottom habitats, which do have value, were removed after the breakwater alternatives were found to be difficult.	Non-concur. The USACE disagrees with the statement, "…wave driven sandy bottom habitats, which do have value, were removed after the breakwater alternatives were found to be difficult." See response to comment 11-12. As explained in GR-7: Breakwater Plans in the Plan Formulation Process, breakwater plans were not carried forward into the Final Array of Alternatives due to high construction costs with relatively low habitat output, failing to meet criterion of efficiency.	N/A
74	*Seamus Ian Innes*	Surfrider Foundation	11-14	Page xiv, Lines 39-40. Page 4-62, Line 20. Why were the positive navigation benefits of breakwater reconfiguration, as discussed in page 4 of the 2016 Surfrider Letter excluded from the Draft Report? The Breakwater as it currently exists, is a hazard to small craft navigation. It is a common occurrence for small craft to lose propulsion outside the Breakwater and drift onto the rocks. This has resulted in countless rescue operations by the Coast Guard, Lifeguards, and Vessel Assist. These incidents have resulted in damage to the craft, injury, and death. If the crest of the Breakwater were removed to a depth sufficient for vessels to pass over, they would not flounder on the Breakwater. Reconfiguration of the breakwater would be a significant benefit to navigation and this should be considered. Navigation in US Waters is one of the key missions of the USACE.	Non-concur. Although navigation is a key mission of the USACE, the USACE disagrees with the statement, "Reconfiguration of the breakwater would be a significant benefit to navigation and this should be considered." Navigational impacts and benefits to small recreational craft from breakwater modifications were considered qualitatively in Appendix C: Economic and Social Considerations, Section 9.4 Incidental Recreation Analysis Results. Results show overall negative wave induced impacts to recreational boating. The breakwater is indicated on all navigation maps and marked by aids to navigation.	N/A
75	*Seamus Ian Innes*	Surfrider Foundation	11-15	Page xv, Page xxi, line 2, Table ES-1, b. Page 4-6, Line 1 & 2. Page 4-35, Line 23 – 25. By definition, intertidal requires the habitat to be exposed to both water and air through tidal action from time to time. Reefs below -20' MLLW are not intertidal, they are subtidal. The lowest recorded tide in LA Outer Harbor was -2.73' MLLW in December 1933. Reef crests below this elevation (stated to be -3' MLLW to -10'MLLW on Page 4-35) are subtidal.	Concur. All habitats within the Recommended Plan are located in the subtidal zone. The Final IFR-EIS/EIR has been updated to reflect this correction.	Section: 1.6.1; 2.1.2; 2.4.2; 2.4.4; 4.1.1; 4.2.2.1; 4.2.6.1; 4.5.2.4; 4.5.3; 4.5.3.1; 4.5.5; 5.0; 6.1.1, 6.3.1.1, 6.3.2.1, 6.3.2.2; 6.3.2.5; 6.3.3.1; 6.4.5
76	*Seamus Ian Innes*	Surfrider Foundation	11-16	Page xvi, Lines 23 & 24; Page xxiv, line 23. There is a good likelihood that the proposed reefs will cause shoreline erosion. There is extensive literature on subtidal, shore unconnected reefs that were intended for salient development that actually caused shoreline erosion in their lee. One such artificial reef had this exact problem in Long Beach in the 1970's.	Non-concur. USACE would not construct a project that would increase coastal hazards. As concluded in Section 5.1, the nearshore reefs would not substantially and adversely alter nearshore wave characteristics; substantially impact nearshore currents; or block or substantially interfere with nearshore sediment transport. Therefore, impacts to coastal and shoreline hydrology under the Recommended Plan would be less than significant. This determination will be confirmed with further physical experiments and numerical modeling will be performed during the pre-construction and engineering design (PED) phase to verify all assumptions and to ensure that the risk to coastal hazards is not increased.	N/A
77	*Seamus Ian Innes*	Surfrider Foundation	11-17	Page 1-8 line 4. The Long Beach City Council approved a motion to begin working with the USACE on the Breakwater effort in 2005.	Concur. Comment has been incorporated into the Final Report.	Section 1.5

78	*Seamus Ian Innes*	Surfrider Foundation	11-18	P1-10, L8: Which constraints limit alternatives to the Project Area?	Thank you for your comment. As noted in the IFR, Section 1.6.2 "Proposed Project Area" notes the following reasons for limiting alternatives to this area, "This is the largest remaining undeveloped area of San Pedro Bay, representing the largest opportunity areas for restoration in open waters. In addition, the nearshore zone along the Long Beach beaches have not been filled in like the ports area. Western San Pedro Bay does not offer large scale habitat restoration opportunities due to existing Port of Long Beach and Port of Los Angeles infrastructure and heavy vessel traffic. The need for restoration in the proposed Project Area is driven by the losses in habitat that have occurred historically throughout the Study Area, including the negative impacts caused directly or significantly influenced by USACE projects. The proposed Project Area is ideally suited for restoration because of the large expanse of relatively undisturbed open water area and with minimal ecosystem stressors as compared to the ports. Port area stressors include poor water quality and circulation within numerous dead-end slips and basins, frequent large vessel traffic and constant ports operations. Stressors coupled with extensive hardened shoreline and ports infrastructure create unsuitable and unsustainable conditions for restoration, leaving ESPB as the nearest and most suitable site to restore lost habitat. Boating traffic (primarily recreational) is expected throughout the proposed Project Area and impacts to kelp within surface waters of the proposed Project Area may occur due to "prop stir" as recreational vessels travel through kelp. However, kelp can grow very rapidly (potentially many feet per day) and due to its rapid rate of growth and recovery, kelp is expected to persist considering potential impacts from boating traffic. All other restoration measures would be sited at depths expected to be below the draft of boating traffic and would be adequately marked and denoted on navigation charts to minimize impacts to the public and to restoration measures. The non-Federal sponsor has an interest in supporting ecosystem restoration within their jurisdiction which includes the majority of the proposed Project Area." In addition, Section 2.3 contains the following Constraint 2: "Do not significantly reduce operational capacity for the ports, THUMS oil extraction islands or other existing maritime operations." Keeps proposed restoration out of the ports complex entirely.	
79	*Seamus Ian Innes*	Surfrider Foundation	11-19	P1-10, L8: LB is likely not interested in paying for a project in San Pedro or Seal Beach, so why were they included in the Study/Project Area?	Thank you for your comment. See GR-1: Restoring Complex Habitats Historically in the Study Area for an explanation of why San Pedro was included in the Study Area. See response to comment 11-4 for why Seal Beach was included in the proposed Project area.	N/A
80	*Seamus Ian Innes*	Surfrider Foundation	11-20	Page 1-10, line 14. San Pedro Bay extends from San Pedro to Huntington Beach as defined by NOAA charts 18749 and 18746. The Bay off of the shores of Long Beach is central San Pedro Bay, but more commonly referred to as Long Beach Outer Harbor. East San Pedro Bay is Seal Beach and Huntington Beach.	Thank you for your comment. See description within Final IFR for the project location. There is no official designation of "East San Pedro Bay" indicated on the referenced navigation charts.	N/A
81	*Seamus Ian Innes*	Surfrider Foundation	11-21	P1-10, L15-16: Project Area also includes Seal Beach, Anaheim Bay & offshore of Surfside, which should not be included in PA.	Non-concur. See response to comment 11-4 for why those areas were included in the proposed Project Area.	N/A
82	*Seamus Ian Innes*	Surfrider Foundation	11-22	Page 1-10, Lines 8-9. What "practical constraints" exclude restoration in other parts of the Study Area? There have been restoration projects in Western San Pedro Bay in the past such as the Salinas de San Pedro Salt Marsh. There are restoration opportunities at Cabrillo Beach and along the Los Angeles Breakwater as well.	Thank you for your comment. See response to comment 11-18 for an explanation on constraint excluding the parts of the Study Area other than the proposed Project Area. See GR-1: Restoring Complex Habitats Historically Present in the Study Area for why restoration is in the proposed Project Area.	N/A
83	*Seamus Ian Innes*	Surfrider Foundation	11-23	P1-10,L8-9: If constraint is that NFS would not likely pay for project in San Pedro, why include San Pedro in Study Area at all?	Thank you for your comment. See response to comment 11-4.	N/A

84	*Seamus Ian Innes*	Surfrider Foundation	11-24	Page 1-11, Lines 5-6.It is stated that "Western San Pedro Bay does not offer large scale habitat restoration opportunities due to existing Port of Long Beach and Port of Los Angeles infrastructure and heavy vessel traffic." This is an unsupported opinion. Of course there are spaces for restoration opportunities inside and outside the Los Angeles Breakwater and in Cabrillo Beach (both inside and outside the breakwater). This is not a reason for excluding Western San Pedro Bay from the Project Area. Instead it is clear that this justification was developed as a way to exclude Western San Pedro Bay, keeping the Project Area near Long Beach, who are the local project sponsor.	Non-concur. The USACE disagrees with the statement, "Instead it is clear that this justification was developed as a way to exclude Western San Pedro Bay, keeping the proposed Project Area near Long Beach, who are the local project sponsor." See GR-1: Restoring Complex Habitats Historically in the Study Area for a full explanation of why western San Pedro Bay is not a suitable location for long-term sustainability of a large-scale habitat restoration project. The non-Federal sponsor is a cost-sharing partner in this study and is committed to implementation of the Recommended Plan.	N/A
85	*Seamus Ian Innes*	Surfrider Foundation	11-25	P1-11, L5-6: This is part of a larger effort to extend the Study Area out to areas that have historically had high value habitats that could be imported thus making ecosystem enhancement look like ecosystem restoration & skirting USACE guidelines.	Non-concur. The USACE disagrees with statement, "… thus making ecosystem enhancement look like ecosystem restoration & skirting USACE guidelines." See GR-1: Restoring Complex Habitats Historically in the Study Area for why the Study Area is included and why the NER Plan meets USACE guidance for ecosystem restoration. The PDT adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones	N/A
86	*Seamus Ian Innes*	Surfrider Foundation	11-26	P2-2,L7-13: Kelp beds shown & discussed are outside Study Area (SA). Is there evidence of kelp beds historically existing within SA?	Concur. Section 2.1.1 has been amended in the Final IFR-EIS/EIR and fully describes historic rocky reef, kelp, and eelgrass that previously existed within the Study Area.	Section 2.1.1
87	*Seamus Ian Innes*	Surfrider Foundation	11-27	P2-2,L18-20: Show evidence of rocky reef areas within Study Area or Project Area.	Concur. Sections 2.1.1 and 3.6 have been amended in the Final IFR-EIS/EIR and fully describe historic rocky reef, kelp, oyster, and eelgrass that previously existed within the Study Area.	Sections 2.1.1; 3.6
88	*Seamus Ian Innes*	Surfrider Foundation	11-28	P2-2, P2-3: Show evidence of all proposed habitat to be "restored" in the SA & PA, including eelgrass, oyster, etc; these ecosystems should have historically existed in natural conditions and have been subsequently degraded, to quali(f)y for restoration under P&G 1996 guidelines.	Concur. Sections 2.1.1 and 3.6 have been amended in the Final IFR-EIS/EIR and fully describe historic rocky reef, kelp, oyster, and eelgrass that previously existed within the Study Area.	Sections 2.1.1; 3.6
89	*Seamus Ian Innes*	Surfrider Foundation	11-29	P2-4, L2: There are opportunities to restore WQ, sediment quality, wave mixing, benthic habitats, but these are not listed. Why aren't they listed?	Concur. Section 2.1.2 of the Final Report was updated to reflect these additional opportunities. The following opportunity was added: "Improving sediment quality, benthic habitats as well as water quality could potentially be achieved with increased wave mixing or improved circulation."	Section 2.1.2
90	*Seamus Ian Innes*	Surfrider Foundation	11-30	P2-5,L2-3: Habitats listed in planning objectives have not been shown in the IFR to have existed historically and been degraded in either the PA or SA.	Non-Concur. Sections 2.1.1 and 3.6 have been amended in the Final IFR-EIS/EIR and fully describe historic rocky reef, kelp, oyster, and eelgrass that previously existed within the Study Area.	Sections 2.1.1; 3.6
91	*Seamus Ian Innes*	Surfrider Foundation	11-31	Page 2-5, Lines 23-37. Why are the constraints absolute? Can't some of the impacts to constraining resources be addressed through mitigation? By defining these constraints as being not mitigatable the Draft Report is scoping away any breakwater alternatives without reason.	Non-concur. Constraints must be clearly defined for a successful planning process, and more fully explained in the Planning Guidance Notebook (PGN), ER 1105-2-100, "(5) Constraints are restrictions that limit the planning process. Constraints, like objectives, are unique to each planning study. Some general types of constraints that need to be considered are resource constraints and legal and policy constraints. Resource constraints are those associated with limits on knowledge, expertise, experience, ability, data, information, money and time. Legal and policy constraints are those defined by law, Corps policy and guidance. These constraints are discussed in subsequent chapters of this regulation and its appendices. The purpose of the study is for ecosystem restoration. See GR-7: Breakwater Plans in the Plan Formulation Process for an explanation of why the breakwater plans were screened out. Plans were formulated to meet the study objectives and to avoid violating the constraints. Thus, a clear definition of objectives and constraints is essential to the success of the planning process.	N/A
92	*Seamus Ian Innes*	Surfrider Foundation	11-32	P2-5, L23-37: Is there USACE guideline that states no mitigation is accepted for NER analysis? According to P6-22, L25, mitigation is provided for other accepted alternatives, but for some reason it's not allowed for impacts stated on P2-5, L23-37.	Thank you for your comment. Per PGN, "(3) Mitigation. Ecosystem restoration projects should be designed to avoid the need for fish and wildlife mitigation." Mitigation is not needed for the NER Plan as confirmed by the analysis in the Final IFR-EIS/EIR. As stated in response 11-31, protective measures to mitigate breakwater impacts were developed. This addresses Consideration 2: Avoid increases in shoreline erosion, wave related damages, and coastal flooding to existing residences, public infrastructure, marinas, existing jetties, other structures, and recreational beaches, found in Section 2.3.	

93	*Seamus Ian Innes*	Surfrider Foundation	11-33	Page 2-7, Line 3, Figure 2-1. The figure shows giant kelp historically existing in the vicinity of the Study Area, but not in the Study Area. How can it be restored to the Study Area if it didn't exist there historically? If it did exist, please show evidence.	Concur. Sections 2.1.1 and 3.6 have been amended in the Final IFR-EIS/EIR and fully describe historic rocky reef, kelp, oyster, and eelgrass that previously existed within the Study Area.	Sections 2.1.1; 3.6
94	*Seamus Ian Innes*	Surfrider Foundation	11-34	Page 3-16, Line 6, 7. Yes, "Benthic organisms are an important component of the food web and are indicators of environmental quality", so why were they excluded from ecosystem habitat restoration measures?	Thank you for your comment. Benthic organisms are associated with soft bottom habitat, which is not the focus of the study. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process.	N/A
95	*Seamus Ian Innes*	Surfrider Foundation	11-35	P4-3, L30: Since project is bringing in new habitats to Project Area from outside PA, project is applying enhancement methods not restoration methods.	Non-concur. The project is not bringing in new habitats as eelgrass, kelp, and rocky reef currently exists within the proposed Project Area (eelgrass beds, kelp and rocky reef associated with oil islands, breakwater, etc.). The proposed Project Area is a small portion of the Study Area that are both a small portion of the SCB. See GR-1: Restoring Complex Habitats Historically Present in the Study Area for a full explanation of how the study complies with the USACE guidance on ecosystem restoration. The PDT adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones.	N/A
96	*Seamus Ian Innes*	Surfrider Foundation	11-36	Page 4-3, Line 33. Sandy bottom habitats were excluded for practical and technical reasons. What are those practical and technical reasons? Is one because modifying the breakwater would be expensive and difficult? If so, that is not a reason to exclude the measure, according to the NER analysis; that should just impact the relative value of the measure as compared to other measures.	Non-concur. See response to comment #11-2.	N/A
97	*Seamus Ian Innes*	Surfrider Foundation	11-37	Page 4-4, Line 7. Page 4-8, Lines 7 & 8. By focusing on only enhancing high value, complex, and scarce habitats, and pre-emptively excluding sandy bottom habitats, the Draft Report subverts USACE NER guidelines which dictate that the measures should be compared on their restored habitat value and relative costs. According to Page 4-4, Lines 1 and 2, the water column and muddy bottom habitats have value, even though they are degraded. Presumably the value would increase if they were restored. The approach taken in the Draft Report uses is a circular logic that excludes sandy bottom habitat from consideration then states that it fails the alternatives comparison due to that exclusion. It also falls under the practice of scoping away alternatives that seem undesirable for other, non-related reasons.	Non-concur. The USACE disagrees with the statements, "The approach taken in the Draft Report uses is a circular logic that excludes sandy bottom habitat from consideration then states that it fails the alternatives comparison due to that exclusion. It also falls under the practice of scoping away alternatives that seem undesirable for other, non-related reasons." As discussed in Appendix D of the Final Report, soft bottom habitat was considered for inclusion in the habitat evaluation model based on its habitat value, during early stages of model development. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for an explanation of the rationale for screening out soft bottom and water column habitats. The PDT adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones.	N/A
98	*Seamus Ian Innes*	Surfrider Foundation	11-38	P4-8,L20: All "eco enhancement" alts should score 1 since they don't meet primary Study objective of "eco restoration."	Non-concur. The study was developed in adherence to USACE plan formulation process, vetted and endorsed by USACE Headquarters and the USACE Ecosystem Planning Center of Expertise. No change to alternatives scoring is warranted. GR-1: Restoring Complex Habitats Historically Present in the Study Area fully explains how the alternatives meet the USACE guidance for ecosystem restoration.	N/A
99	*Seamus Ian Innes*	Surfrider Foundation	11-39	Page 4-15, Line 40. We disagree with the characterization that changes to the breakwater will only have a minor effect on the time a particle remains in the ESPB. According to the surface flows in Appendix A-1, Figure 5.2 (Release 1 & 3), and Figure 5.4 (Release 1 & 2), removal of the breakwater clearly reduced the duration that the particle remained in ESPB. From the figures, it not possible to determine how much this duration is reduced. Some indication of residence time would be helpful.	Non-concur. Appendix A of the Final Report, Page 7-45, Table 7-3 shows the representative particle duration for various breakwater measures change only slightly from existing conditions. The average days for complete lowering of the breakwater is only reduced 0.13 days from existing conditions 1.78 days.	N/A
100	*Seamus Ian Innes*	Surfrider Foundation	11-40	Page 4-26, Line 3. Can't read labels in Figure 4-6. Please re-do.	Concur. Figure 4.6 has been fixed in Final IFR-EIS/EIR.	Section 4.2.6

101	*Seamus Ian Innes*	Surfrider Foundation	11-41	P4-30, L27: Does habitat evaluation modeling that concludes zero AAHUs for BW alts include the increased rocky bottom habitat from removing the top of the BW, exposing rocky reef, or improved WQ resulting from BW removal? We know from USACE guidance that WQ is an important component of ecosystem structure & good WQ is generally integral to healthy functioning ecosystems.	Non-concur. The HEM does not consider habitat transformation. See GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for an explanation of why water quality is not an ecosystem restoration objective in the context of this study.	N/A
102	*Seamus Ian Innes*	Surfrider Foundation	11-42	P4-35, L29: should read "multifunctional reefs could reduce or increase shoreline erosion rates and provide incidental coastal storm damage protection or increase storm damage." Also see Pg. xvi, L23-24	Non-concur. See response to comment #11-16.	N/A
103	*Seamus Ian Innes*	Surfrider Foundation	11-43	P4-59, L8: Why does figure show BW lowered to ground level? Has anybody suggested that this would be desirable or beneficial? (SF wants -30' MLLW for kelp habitat growth)	Thank you for your comment. Multiple breakwater crest elevations were examined throughout the study process. Restoring the seabed to a more natural condition is the pre-human intervention condition. The team investigated different modifications to show the relative changes to the system and potential magnitude of impacts to existing infrastructure. This feasibility study is not, and never has been, a replacement for detailed analysis and design if a breakwater modification was selected plan.	N/A
104	*Seamus Ian Innes*	Surfrider Foundation	11-44	P4-62, L42: In 2000, SF sued Carnival Cruise Lines over their EIR. Settlement stated CCL would not object to BW reconfiguration. Thus any expenses to CCL resulting from BW reconfiguration would be assumed by CCL, and are not a concern of USACE.	Thank you for your comment. The USACE should consider all impacts regardless of the legal situation.	N/A
105	*Seamus Ian Innes*	Surfrider Foundation	11-45	Page 4-63, Line 24, 25. The USACE assertion that "relocation of Navy operations to alternative sites would be cost prohibitive and unlikely to be supported due to public opposition" is illogical and an unsupported opinion. Currently, the Navy transfers potentially dangerous explosives at the explosives anchorage, which is approximately 2.5 miles from homes, schools, and businesses in Long Beach. A reasonable assumption would be that residents would greatly prefer moving the danger further away from their homes. Relocating the explosives anchorage to the lee of the Middle Breakwater in the Port of Long Beach would greatly reduce danger to residents, while restricting some port operations once per year. This would be a greater expense to the Port, but it's easy to see that residents would think it is a reasonable cost paid by the Navy and Port of Long Beach in support of national security and greater safety to the public.	Non-concur. Relocation of the Navy's mooring has already been considered and determined infeasible in the Navy's (1990s) Feasibility Study. The current Navy expansion at NWS-SB does not remove their anchorage requirements in the lee of the Long Beach Breakwater.	N/A
106	*Seamus Ian Innes*	Surfrider Foundation	11-46	P8-1, L10: USACE performed extensive public outreach for Study & effort is greatly appreciated by Surfrider.	Thank you for your comment and participation in the study.	N/A
107	*Seamus Ian Innes*	Surfrider Foundation	11-47	PP8-2, L10-11: Of course, constraints used to exclude BW alts were designed to preemptively exclude those reasonable & practicable alts. E.g., there's no need for constraints to be absolute where mitigation could address. See comment re: P2-5, L23-37. (11-31)	Non-concur. See response to comment #11-31.	N/A
108	*Seamus Ian Innes*	Surfrider Foundation	11-48	P8-2, L12-21: We disagree w/arguments made here. See discussion on pgs 2-6 of this comment letter above (11-1/11-38).	Thank you for your comment. Please see responses to individual comments #11-1 – 11-38.	N/A

109	*Seamus Ian Innes*	Surfrider Foundation	11-49	P8-2, L16-17: USACE states "intent is not to "restore what may have historically existed within the exact footprint of ESPB." We disagree & put forth that intent should be to restore what historically existed within exact footprint of ESPB. Geographic footprint is key to understanding eco restoration, since ecosystems occur in specific areas. Important for USACE to include specific reference to both the undisturbed area & restored area, in their definition of eco restoration; there's no indication these areas are different from one another. (quoted after comment," The objective of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes to the landscape and hydrology. Indicators of success would include the presence of a large variety of native plants and animals, the ability of the area to sustain larger numbers of certain indicator species or more biologically desirable species, and the ability of the restored area to continue to function and produce the desired outputs with a minimum of continuing human intervention.")	Partial concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for why restoration is of habitats historically found in the Study Area, not in the exact footprint of the proposed Project Area. See responses to comments #11-26 and 11-27 for revisions to the Final Report on historic habitats.	N/A
110	*Seamus Ian Innes*	Surfrider Foundation	11-50	A simple definition of restoration is to "restore some thing." If one were restoring a chair, the chair would be that thing. It would include historical features of the chair and exclude anything that is not the chair. Restoration would occur to only the chair and nothing else. Other furniture in the room would definitely not be included. In our Study example, what is that thing? If the thing is ecosystems in the Project Area, restoration should be limited to ecosystems historically existing within the Project Area and any restoration would take place within the exact footprint of the Project Area. If the thing is ecosystems in the Study Area, ecosystems historically occurring within the Study Area could be restored, but this also would allow for projects anywhere in the Study Area. This is problematic since Long Beach isn't likely to pay for projects in Cabrillo or the Port of Los Angeles. The same argument applies to the Southern California Bight. Clearly ecosystems in the Study Area and the Southern California Bight are not the thing being restored, and ecosystems in the Project Area are the thing.	Non-concur. The USACE disagrees with the statement, "Clearly ecosystems in the Study Area and the Southern California Bight are not the thing being restored, and ecosystems in the proposed Project Area are the thing." See GR-1: Restoring Complex Habitats Historically in the Study Area for why restoration is of historic ecosystems once found in the Study Area, not in the exact footprint of the proposed Project Area.	N/A
111	*Seamus Ian Innes*	Surfrider Foundation	11-51	Lines 17-19 The USACE states that the intent is to "restore ecological functions associated with high value habitat within the San Pedro Bay to support overall biodiversity and ecological health for marine populations within the Southern California Bight." The stated reason for these two geographic limits is that the Project Areas is within the San Pedro Bay and the San Pedro Bay is within the SCB (Page xi, Line 25). By the same logic, one could propose to restore ecological functions associated with high value habitat within the Pacific Ocean to support overall biodiversity and ecological health for marine populations within the World. On the face of it, this sentence seems ridiculous, but this is the exact reasoning and spatial rules that the USACE used in their boundaries. This could result in attempting to importing species that never existed in the Project Area from locations in the Mediterranean Sea. This ridiculous proposal could lead to importing invasive species, which is clearly not the intent. This simple exercise points out the irrationality of the USACE's argument.	Non-concur. Please see GR-1: Restoring Complex Habitats Historically in the Study Area for why restoration is of historic ecosystems once found in the Study Area, not in the exact footprint of the proposed Project Area.	N/A
112	*Seamus Ian Innes*	Surfrider Foundation	11-52	App A, Page 1-1, Lines 8-18. It appears the only water quality analysis that was performed was within the EFDC model. It does not appear that improvements to water quality from increased aeration resulting from increased breaking waves associated with the breakwater alternatives were considered. Aeration is a good source of dissolved oxygen which is essential for aquatic life. Please include water aeration impacts to water quality in the Study.	Non-concur. DO is not included in the HEM, so this process was not considered in this context. During consultation with the TAC, DO was determined to not be a limiting factor for any habitat type. GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered explains why water quality is not an ecosystem restoration objective in the context of this study.	N/A

113	*Seamus Ian Innes*	Surfrider Foundation	11-53	App A, Page 5-5, Line 3, Page 7-28, Line 1. Agreed that initial results of reef impacts to shoreline erosion are highly preliminary. Contrary to expectations, low crested reefs (MLLW and below) have caused erosion in their lee due to ponding of water in the lee of the reef lee and induced lateral currents. This has occurred in a test reef in Long Beach in the 1970's and is explained well in recent numerical models.	Partial concur. USACE performed a feasibility level analysis for coastal storm damage reduction measures along the Long Beach Shoreline in the early 2000s. Results indicated that nearshore structures have the potential to reduce costal storm damages. The study did not progress further due to the lack of federal interest (i.e., the project would not have an acceptable National Economic Development (NED) benefit to cost ratio. Additional physical modeling will be performed during the PED phase to ensure no increased risk of coastal hazards.	N/A
114	*Seamus Ian Innes*	Surfrider Foundation	11-54	App A, Page 5-8, Lines 11-13. See previous comment. Experience has shown that low crested reefs often lead to increased erosion in their lee. This would make a perched beach for eelgrass growth unlikely.	Partial concur. USACE performed a feasibility level analysis for coastal storm damage reduction measures along the Long Beach Shoreline in the early 2000s. Results indicated that nearshore structures have the potential to reduce costal storm damages. The study did not progress further due to the lack of federal interest (i.e., the project would not have an acceptable National Economic Development (NED) benefit to cost ratio. Additional physical modeling will be performed during the PED phase to ensure no increased risk of coastal hazards.	N/A
115	*Seamus Ian Innes*	Surfrider Foundation	11-55	App A, Page 5-13, Lines 17-19. As discussed on Page 8 of the 2016 Surfrider Letter another benefit of the training wall would be to protect downtown infrastructure from wave activity.	Thank you for your comment. The training wall was screened out as indicated in the Final IFR-EIS/EIR, Section 4.3.5, because it does not improve circulation, nor does it provide increased habitat benefits in relation to other measures considered.	Section 4.3.5
116	*Seamus Ian Innes*	Surfrider Foundation	11-56	App A, Page 6-5 & 6-6. Would the surface layer salinity and total suspended solids graphics show greater contrast between inner harbor and outside the Long Beach Breakwater if a later time was chosen for display?	Thank you for your comment. Yes, there would be a greater contrast between inner harbor and outside the breakwater, although the full time series was already considered during the habitat evaluation model.	
117	*Seamus Ian Innes*	Surfrider Foundation	11-57	App A, Page 6-5 & 6-6. For example, "Peak Ebb" occurs close to hour 3.5 in Figure 6-10. Would greater contrast show if the model had more time to run with a graphic showing the lower tide slack tide near hour 4.5? This is important as it would validate the model to the aerial photographs showing high suspended sediment concentrations inside the breakwater and lower ones outside the breakwater after rainfall events (Google Earth 1/2005, 10/2012, 6/2016, 12/2017, and 3/2018).	Thank you for your comment. The purpose of the ESPB model is to provide input conditions to the Habitat Suitability Model (HEM). The ESPB model (or WRAP model) has been used and validated for the project location using physical tracer studies, in situ gage measurements and expert review over the nearly 10 years of use and development within San Pedro Bay. For additional information, see Everest International Consultants, Inc. 2017a. "WRAP Model Development in Support of Final Dominquez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants and Maximum Daily Load Final Report," Prepared for the Port of Long Beach and the Port of Los Angeles. See also Appendix A, pp 6-3 & Appendix A-1.	N/A
118	*Seamus Ian Innes*	Surfrider Foundation	11-58	Appendix A-1, Pages 30 – 35. Why aren't 2-D spatial plots showing salinity and total suspended solids shown for the scenarios like they are for the existing conditions in Figures 4.3 and 4.4? Beyond particle tracing graphs, the 2D spatial plots would be useful in determining effectiveness of breakwater modifications on tidal circulation and water clarity. They would also be useful to validate the obvious suspended particle flow through Queen's Gate shown in Google Earth aerial photos taken on 1/05, 10/12, 6/16, 12/17, and 3/18.	Non-concur. Appendix A-1, pages 52-60 show the comparison of variables at specific locations within the proposed Project Area. The minor change in these variables did not warrant further investigation. Additionally, the WRAP model (which the ESPB model is a subset of) has been previously validated for the proposed Project Area using in-situ wave, water level and current gauges along with physical tracer studies.	N/A
119	*Seamus Ian Innes*	Surfrider Foundation	11-59	Appendix A-1, Figures 5.2 through 5.7. Since it acknowledged in the main report that the LA River and San Gabriel Rivers are the greatest sources of pollution in the ESPB, it seems like release locations D, E, and F are less helpful, and more variety of graphs showing release points near the river mouths would have been useful. While there is nothing wrong with release locations D, E, and F, if there is limited space in the report, more focus should be spent on the more important situations. The same goes for bottom layer flows, since highly polluted fresh water flows from the rivers stay mostly in the surface layer.	Non-concur. The PDT goal was to investigate what the impacts on the bay were in response to breakwater modification. Increased number of tracer plots at the river mouths would not provide any additional information that cannot already be determined using the existing analysis.	N/A
120	*Seamus Ian Innes*	Surfrider Foundation	11-60	Appendix A-1, top of Figure 5.1 and Page 61 first paragraph and Figure 5.3 Surface Layer Wet Event. According to Figure 5.1, the tracer tracking analysis simulated rainfall flow through the Los Angeles River but had no rainfall input from the San Gabriel River. In Figure 5.3, the surface layer wet event simulation looks like there is flow through the San Gabriel River. Which is it? If there is not flow through the San Gabriel River, please re-run the model with more realistic flows from both rivers.	Non-concur. Flows from the wet weather events are shown in Appendix A-1, page 19, fig. 3.3 (middle) and include both the Los Angeles and San Gabriel Rivers. River information is only presented in this figure to show the timing. A full time series of the input flow conditions are shown in Figures 3.4 & 3.5 on page 20/21 (App A-1).	N/A

121	*Seamus Ian Innes*	Surfrider Foundation	11-61	We sincerely desire the USACE to change direction of the Study to more accurately adhere to USACE guidelines and CEQA/NEPA regulations that focus on ecosystem restoration. Specifically habitat examples from outside the Project Area should not be considered for import to the Project Area within the confines of the Study. We would like to see water circulation, tidal circulation, and water clarity returned to the project goals as well as inclusion of the possibility of mitigation, where needed.	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for a full explanation of how the study complies with the USACE guidance on ecosystem restoration. The team adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones. See GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for an explanation of how circulation was addressed in this study and why water quality is not an ecosystem restoration objective in the context of this study. See response to comment #11-32 for explanation of how mitigation was addressed in the study.	N/A
122	*Seamus Ian Innes*	Surfrider Foundation	11-62	We would like to see water circulation, tidal circulation, and water clarity returned to the project goals as well as inclusion of the possibility of mitigation, where needed.	Non-Concur. As in response to comment #11-62, see GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for an explanation of how circulation was addressed in this study and why water quality is not an ecosystem restoration objective in the context of this study. See response to comment #11-32 for explanation of how mitigation was addressed in the study.	
123	*Seamus Ian Innes*	Surfrider Foundation	11-63	We would like to see wave driven sandy bottom habitat included in the habitat analysis and carried through the alternatives comparison.	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process explains why soft bottom habitat was screened out, which provides the rationale for why it will not be reconsidered.	N/A
124	*Seamus Ian Innes*	Surfrider Foundation	11-64	Attached to this document is a hired expert opinion by Craig Jones, Ph.D., of Integral Consulting Incorporated. We concur with the statements provided in this document. We look forward to working with the USACE and our local Study sponsor, the City of Long Beach, on this very exciting and promising project. Feel free to contact me any time to discuss this letter or any topic associated with the Study.	Thank you for your comment. Continued stakeholder coordination is welcomed by the USACE.	N/A
125	*Craig Jones*	Integral Consulting	12-1	The City of Long Beach (City) has been working with the USACE since 2010 to advance a feasibility study to restore the East San Pedro Bay. My understanding is that the East San Pedro Bay Ecosystem Restoration Study is the first open ocean ecosystem restoration study to be conducted by the USACE under their feasibility study guidelines. Generally, the goals of the project are to restore aquatic habitat of sufficient quality and quantity to support diverse resident and migratory species. Additionally, there is a goal to improve water circulation sufficient to support and sustain aquatic habitat within East San Pedro Bay (ESPB). My review is focused on the adequacy of the feasibility study in evaluating habitats, their relationship to natural processes in ESPB, and measures for restoration of those habitats.	Thank you for your comment. See GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered explains why water quality is not an ecosystem restoration objective in the context of this Study.	N/A
126	*Craig Jones*	Integral Consulting	12-2	As stated above, the overall intent of restoration is to partially or fully reestablish a more natural condition which would occur in the area in the absence of humans (bold statement above). Pursuant to this, the ecosystem restoration study should include examination of the naturally occurring ecosystem in the ESPB project area, problems contributing to the ecosystem degradation, and of means for ecosystem restoration. The USACE guidance and objectives for restoration inform the basis of the review herein.	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for a full explanation of how the study complies with the USACE guidance on ecosystem restoration. The PDT adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones.	N/A
127	*Craig Jones*	Integral Consulting	12-3	As will be discussed below, these opportunities and alternatives do not focus on key habitats that are present within the ESPB prior to human changes and are still present in the system today, such as sandy beach, sandy intertidal, and sandy subtidal habitats.	Thank you for your comment.	N/A
128	*Craig Jones*	Integral Consulting	12-4	Furthermore, the IFR overall weights high-value habitat within the entire SCB, but the weighting of all SCB habitats doesn't adequately evaluate the habitat dominant in the original ESPB natural system (primarily sand). A significant change in the system habitat composition is generally termed habitat enhancement. Enhancement incorporates ecosystem features, that while perhaps high value, were not historically significant in the project area.	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for how this project satisfies USACE guidance for ecosystem restoration. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for why soft bottom and sandy beach habitats are not a focus of restoration.	N/A

129	*Craig Jones*	Integral Consulting	12-5	Since the primary goal of USACE guidance is, "to restore degraded ecosystem … to a less degraded, more natural condition," the IFR project goals to increased habitat biodiversity and ecosystem value based on evaluation of the entire SCB is more accurately an enhancement than a restoration of ESPB	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for how this project satisfies USACE guidance for ecosystem restoration.	N/A
130	*Craig Jones*	Integral Consulting	12-6	These constraints pose significant barriers to the restoration of ESPB to conditions prior to human change; however, striving for those conditions should be a primary objective of the restoration alternatives and their evaluation.	Thank you for your comment.	N/A
131	*Craig Jones*	Integral Consulting	12-7	In the IFR kelp, rocky reef, coastal wetlands, and other habitat types have been identified in SCB as supporting diverse resident and migratory species within the region. Identified ecosystem stresses to the area have included loss of historic coastal wetlands and sensitive marine habitat areas with associated nursery, reproductive, and other ecological functions; and reduced abundance and biodiversity of marine populations as a result of habitat loss. The identified stresses to the ecosystems are human induced including coastal and offshore development resulting in a loss of kelp extents, rocky reef, wetlands, and eelgrass. Sandy intertidal is not included in the IFR habitat discussion.	Non-concur. Sandy intertidal habitat is addressed in the Final IFR-EIS/EIR, which is further explained in GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process.	N/A
132	*Craig Jones*	Integral Consulting	12-8	The region around the Palos Verdes Peninsula has lost over half of the kelp habitat resulting in substantial fish biomass decreases. As seen in Figure 2, the stressed kelp habitats are in rocky cliff backed shoreline regions along the Peninsula. The cliff backed shoreline is common to geomorphic regions supporting kelp habitat along the California coast. The regions of kelp habitat loss, while tragic for the overall SCB, are not located within the study or project areas.	Partial concur. Sections 2.1.1 and 3.6 have been amended in the Final IFR-EIS/EIR and fully describe historic rocky reef, kelp, oyster, and eelgrass that previously existed within the Study Area.	Sections 2.1.1; 3.6
133	*Craig Jones*	Integral Consulting	12-9	The IFR does not address that this highly valued habitat targeted for restoration was not of significance historically in the ESPB project area.	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for national significance of targeted habitat types and why they are being restoration in ESPB.	N/A
134	*Craig Jones*	Integral Consulting	12-10	It is important to assess the potential for the unintended consequences of restoring a kelp habitat that was not naturally occurring in the project area.	Thank you for your comment. Kelp currently exists in the proposed Project Area. The impact of restored kelp within the proposed Project Area has been described and analyzed in Section 5.16.2 and in Appendix C of the Final IFR-EIS/EIR.	Section 5.16.2; Appendix C
135	*Craig Jones*	Integral Consulting	12-11	Overall, the IFR assesses and values multiple habitats throughout and outside of the study area. Unfortunately, some of these habitats were not naturally dominant in the project area and a key habitat in the specific project area, sandy beaches, are not specifically included in the study. While the study aims to enhance ecosystem features that did not naturally exist in the project area, it omits important habitat associated with a sandy coast that is important both historically and present day.	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for why sandy beach habitats are not a focus of restoration. The beach has too much anthropogenic activity for consideration. This is why sandy islands were considered, with input from the Habitat Technical Advisory Committee, including resource agency representatives.	N/A
136	*Craig Jones*	Integral Consulting	12-12	As discussed, the omission of sandy beach habitat represents a significant omission in any complete assessment of habitat measures. Therefore, measures such as breakwater modifications that support sandy habitats overall, were not linked to any habitat unit.	Non-concur. See response to comment #11-2.	N/A
	Craig Jones	Integral Consulting	12-13	While the sandy island habitat provides similar ecosystem services, restoration of existing sand habitat by breakwater modification is not evaluated. This deficiency will be discussed further below.	Non-concur. See response to comment #11-2.	N/A

137	*Craig Jones*	Integral Consulting	12-14	The evaluation of the breakwater removal did not include any scoring of the restorative benefits to the natural sandy bottom and beach habitats.	Non-concur. See response to comment #11-2.	N/A
138	*Craig Jones*	Integral Consulting	12-15	The removal of fine sediment in favor of coarse sediment benthos is restorative to the historic ESPB ecosystem; however, the HU score was zero for these restoration activities. Furthermore, the decreased flushing time (e.g., particle residence time) evaluated in the IFF improves water quality and circulation that is beneficial to all of the habitats being evaluated. By not scoring the range ecosystem benefits, the IFR prematurely screens out breakwater modifications.	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for an explanation of how soft bottom habitat was screened prior to the habitat evaluation model, and See GR-7: Breakwater Plans In the Plan Formulation Process for an explanation of how breakwater plans were not carried forward into the Final Array of Alternatives due to high construction costs with relatively low habitat output, failing to meet criterion of efficiency, as well as the impacts to maritime operations. See GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered explains how circulation was addressed in this study and why water quality is not an ecosystem restoration objective in the context of this study.	N/A
139	*Craig Jones*	Integral Consulting	12-16	The Southern California Coastal Bay Ecosystem Model habitat model used for the IFR considers the entire SCB. The metrics/goals of increasing total habitat area, diversity, and connectivity are therefore scored for a much larger region than the project area. As discussed previously, the inclusion of habitat outside of the project area provides inequitable habitat values for habitat not naturally occurring in the project.	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for explanation on restoration of habitats historically found in the Study Area, and as explained in response to comment #11-35, the project is not bringing in new habitats as eelgrass, kelp, and rocky reef currently exists within the proposed Project Area (eelgrass beds, kelp and rocky reef associated with oil islands, breakwater, etc.).	N/A
140	*Craig Jones*	Integral Consulting	12-17	Alternative 8 is the only alternative carried forward to the final array that incorporates any sandy habitat through the sandy islands. As stated in the IFR, the habitat is valuable for threatened and endangered shorebirds. Also, Alternative 8 gains the most restored and enhanced acreage over the largest number of sensitive habitat types. However, Alternative 8 is screened out. Alternative 4a, the final selected alternative and primarily achieves enhancement of kelp, intertidal, and rocky reef habitat that was not dominant in ESPB before human change to the system. Alternative 4a has no restoration of the dominant existing sandy habitat. While the IFR states that the study avoids valuing one type of habitat over another, the historic sandy habitats are not equitably evaluated in the study.	Non-concur. The USACE disagrees with the statement, “While the IFR states that the study avoids valuing one type of habitat over another, the historic sandy habitats are not equitably evaluated in the study.” The plan formulation process was adhered to and GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process explains how sandy habitat was considered in the study. Soft bottom habitat does not meet study objective. See GR-1: Restoring Complex Habitats Historically in the Study Area for explanation on restoration of habitats historically found in the Study Area.	N/A
141	*Craig Jones*	Integral Consulting	12-18	The scoring systems used in the IFR does not account for all of the process linkages across measures and metrics. For example, the breakwater removal measures are not linked to benefits to other habitats through the support of healthy benthos and water quality.	Non-concur. The Final IFR Section 4.3.2 Habitat Evaluation Modeling: Southern California Coastal Bay Ecosystem Model summarizes the purpose and intent of the habitat model used to develop quantitative Habitat Units. “For ecosystem restoration projects, the evaluation process focuses on quantitative and qualitative restoration outputs instead of monetary benefits which are incidental. Per the PGN, ecosystem restoration outputs must be clearly identified and quantified in appropriate units. The PDT evaluated various physical, chemical, and/or biological parameters that can be modified by management measures which would result in an increase in ecosystem quantity and quality in the proposed Project Area. It is preferable to use habitat units that measure an increase in ecosystem value.” The full modeling documentation can be found in Appendix D.	N/A
142	*Craig Jones*	Integral Consulting	12-19	Furthermore, the IFR does not assess the potential consequences of significantly increasing the acreage of new habitat. Increased kelp and rocky intertidal habitat could reduce circulation and negatively impact water quality in the region. These new habitats could also decrease water clarity and sediment sizes at the beach which would result in degradation of a substantial recreational resource. The IFR must include a full assessment of the potential negative consequences of increasing the quantity of new habitat in the area before selecting an alternative.	Non-concur. Full impact analyses of kelp and rocky reef is in Chapter 5, Appendix A, and Appendix C. Kelp is not expected to significantly alter the wave climate or lead to increased sedimentation. Kelp reefs are placed in areas of the proposed Project Area that experience the highest wave energy, which will allow suspended sediment to remain in the water column. Nearshore reefs will reduce the water velocity in the lee of the structures, which is vital for the adjacent eelgrass beds. HEM modeling showed that the reduction in velocity is not detrimental to other targeted habitats. Physical modeling during PED will confirm assumptions, but most importantly will provide for an iterative design process that will lead to a successful project once constructed.	N/A
143	*Craig Jones*	Integral Consulting	12-20	While the IFR presents a comprehensive evaluation of restoration feasibility in ESPB, the opportunities and alternatives assessed do not focus on key habitat that was present prior to human changes, is still present, and stressed today (e.g., sandy beach, sandy intertidal, and sandy subtidal habitats). The significant change in the system habitat composition resulting from Alternative 4a is generally termed habitat enhancement.	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for an explanation of how sandy habitats were considered in the study. See GR-1: Restoring Complex Habitats Historically in the Study Area for how this project satisfies USACE guidance for ecosystem restoration.	N/A

144	*Craig Jones*	Integral Consulting	12-21	Since the primary goal of USACE guidance is, "to restore degraded ecosystem … to a less degraded, more natural condition," the IFR project goals to increased habitat biodiversity and ecosystem value based on evaluation of the entire SCB is more accurately an enhancement than a restoration of ESPB. Furthermore, the IFR does not examine the consequences of expanding new habitats in the ESPB.	Non-concur. See GR-1: Restoring Complex Habitats Historically in the Study Area for how this project satisfies USACE guidance for ecosystem restoration. As explained in response to comment #11-35, the project is not bringing in new habitats as eelgrass, kelp, and rocky reef currently exists within the proposed Project Area (eelgrass beds, kelp and rocky reef associated with oil islands, breakwater, etc.). The proposed Project Area is a small portion of the Study Area that are both a small portion of the SCB.	N/A
145	*Craig Jones*	Integral Consulting	12-22	The review of the IFR highlights several key concerns: • The range of habitats naturally supported in the study and project areas prior to human development are different. The study area habitats significantly varied due to the transition in coastal geomorphology from a cliff backed shoreline to the west to open sandy beach to the east. The ESBP project area coastline was primarily sandy beach with inland wetlands/coastal lagoons.	Thank you for your comment. See GR-1: Restoring Complex Habitats Historically in the Study Area for further explanation of restoration rationale.	N/A
146	*Craig Jones*	Integral Consulting	12-23	The subtidal sand, intertidal swash zone, and upper beach are critical habitats locally that are not included in the IFR evaluation	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for an explanation of how sandy habitats were considered in the Study.	N/A
147	*Craig Jones*	Integral Consulting	12-24	While the study aims to enhance ecosystem features that did not naturally exist in the project area, it omits habitat associated with a sandy coast that is important both historically and present day	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for how sandy beach habitat was considered in the Study.	N/A
148	*Craig Jones*	Integral Consulting	12-25	Without an understanding of the natural baseline habitat in ESPB, any restoration or enhancement activities risk being ecologically incompatible and risk unintended consequences	Non-concur. As explained in response to comment #11-35, the project is not bringing in new habitats as eelgrass, kelp, and rocky reef currently exists within the proposed Project Area (eelgrass beds, kelp and rocky reef associated with oil islands, breakwater, etc.). The habitat evaluation model documented in Appendix D captured the suitability of a particular location to support restoration of target habitat types. The suitability parameters for each habitat type were developed with inputs from subject matter experts including resource agency representatives.	N/A
149	*Craig Jones*	Integral Consulting	12-26	By not scoring all ecosystem restoration benefits, such as support of sandy habitat and circulation, the IFR prematurely excludes reasonable and practicable breakwater modifications	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process and GR-7: Breakwater Plans in the Plan Formulation Process for how sandy habitats were considered in the study and how breakwater plans were not carried forward into the Final Array of Alternatives due to high construction costs with relatively low habitat output, failing to meet criterion of efficiency.	N/A
150	*Craig Jones*	Integral Consulting	12-27	While the IFR states that the study avoids valuing one type of habitat over another, the historic sandy habitats are not equitably evaluated in the study	Non-concur. See GR-6: Sandy/Soft-Bottom and Water Column Habitats In the Plan Formulation Process for how sandy habitats were considered in the Study.	N/A
151	*Craig Jones*	Integral Consulting	12-28	The IFR must include a full assessment of the potential negative consequences of increasing the quantity of new habitat	Thank you for your comment. See Chapter 5 for environmental impacts analysis of the Final Array of Alternatives. Appendix A Coastal Engineering, Chapters 7 and 8 document impacts to coastal processes and local operations.	N/A
153	*Seamus Ian Innes*	Surfrider Foundation	13-1	What was delivered in draft report is not eco restoration but eco enhancement without any WQ or water circulation improvements. USACE performed old bait & switch on ESPB study. Offered a Rolls Royce & delivered a Hyundai.	Non-concur. The USACE does not agree with these statements, especially regarding "bait and switch" performance. For the reasons stated in GR-1: Restoring Complex Habitats Historically in the Study Area, each of the Final Array of Alternatives meet the USACE guidance for ecosystem restoration alternatives. GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered explains why water quality is not an ecosystem restoration objective in the context of this study.	N/A
154	*Seamus Ian Innes*	Surfrider Foundation	13-2	USACE should revisit study to eliminate eco enhancement alts & re-insert WQ & water circulation goals & objectives.	Non-concur. For the reasons stated in GR-1: Restoring Complex Habitats Historically in the Study Area, each of the Final Array of Alternatives meet the USACE guidance for ecosystem restoration alternatives. GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered explains how circulation was addressed in this Study and why water quality is not an ecosystem restoration objective in the context of this Study.	N/A

155	*Seamus Ian Innes*	Surfrider Foundation	13-3	(under "What Was Delivered") 1. Ecosystem Enhancement as defined by USACE; (a) Enhancement now implies making the habitat better for some species than it would have been naturally in the absence of human intervention. Since this goes beyond the goal of eco restoration, the use of term "enhancement" is rarely appropriate in Corps documents.	Non-concur. For the reasons stated in GR-1: Restoring Complex Habitats Historically in the Study Area, each of the Final Array of Alternatives meet the USACE guidance for ecosystem restoration alternatives.	
156	*Seamus Ian Innes*	Surfrider Foundation	13-4	(under "What Was Delivered") 2. Restore & improve aquatic eco structure & function for increased habitat biodiversity & eco value of the SCB within the Proposed Project Area of ESPB; (a) i.e., import high value habitats from the SCB into ESPB.	Non-concur. The USACE disagrees with this comment. See GR-1: Restoring Complex Habitats Historically in the Study Area for why habitats are not being "imported."	N/A
157	*Seamus Ian Innes*	Surfrider Foundation	13-5	(under "What Was Delivered") 3. Water quality & water circulation were dropped from goals & objectives, thus do not appear in proposed alternatives.	Non-concur. GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered explains how circulation was addressed in this Study and why water quality is not an ecosystem restoration objective in the context of this Study.	N/A
158	*Seamus Ian Innes*	Surfrider Foundation	13-6	We want a study that logically & honestly evaluated the project following USACE guidance & agreed upon goals & objectives. If it is determined that the USACE cannot provide a project that satisfied those criteria, then they should say so. They should not modify their criteria in order to find any project whatsoever. (23 Signatories)	Thank you for your comment. The PDT adhered to USACE guidance for the plan formulation process of developing, screening and evaluating measures and alternatives; a process which was endorsed by the Vertical Team at USACE Headquarters at key milestones. This plan formulation process included stakeholder outreach at key points throughout the Study.	N/A
159	*Jaz Kaner*	Surfrider Foundation: Example Form Letter	14-1	Thank you for considering my comments on the East San Pedro Ecosystem Restoration Feasibility Study Draft IFR. Back in 2016, the US Army Corps agreed to study ecosystem restoration, water quality and water circulation improvements. What was delivered in the Draft Report that was released in November 2019 is not ecosystem restoration, but ecosystem enhancement without any notable water quality improvements. That is not consistent with Army Corps guidelines or with the 2016 promise of ecosystem restoration with goals of improving water quality and water circulation. Please revisit this study and include options that will result in true ecosystem restoration and help alleviate stated water quality and circulation issues in the Bay, as originally intended.	<60+ FORM LETTERS RECEIVED VIA EMAIL > Thank you for your comments. The USACE set out to meet the study goal to: ***Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the San Pedro Bay within the proposed Project Area of ESPB.*** With the selection of the National Ecosystem Restoration (NER) Plan, Alternative 4A, which is now the Recommended Plan, the USACE has met the study objective to: ***Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within San Pedro Bay during the period of analysis (50 years).*** As summarized in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan, Alternative 4A has been identified as the NER Plan because it reasonably maximizes net ecosystem restoration benefits as compared to costs. Thank you for your comments and support of the NER Plan. GR-3 also briefly discusses why breakwater plans were screened out. The Recommended Plan will restore 200 acres of complex and highly productive coastal habitats including kelp beds, rocky reef and eelgrass. The Recommended Plan provides habitat for key life stages of a diverse population for fish and other aquatic species through provision of foraging, sheltering and critical nursery functions that support population health and growth. *"Back in 2016, the US Army Corps agreed to study ecosystem restoration, water quality and water circulation improvements."* Partial concur. Although circulation was originally considered water quality was never an objective. Please see the full explanation in GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered. *"What was delivered in the Draft Report that was released in November 2019 is not ecosystem restoration, but ecosystem enhancement without any notable water quality improvements. That is not consistent with Army Corps guidelines or with the 2016 promise of ecosystem restoration with goals of improving water quality and water circulation."* Non-concur. As detailed in GR-1: Restoring Complex Habitats Historically Present in the Study Area, the USACE followed Ecosystem Restoration guidance. *"Please revisit this study and include options that will result in true ecosystem restoration and help alleviate stated water quality and circulation issues in the Bay, as originally intended."* Non-concur. The USACE ecosystem restoration feasibility study plan formulation process was adhered to, vetted and endorsed by USACE Headquarters and the USACE Ecosystem Restoration Planning Center of Expertise as well as the City of Long Beach as the non-federal sponsor. Alternative 4A (the NER Plan) is being put forward as the Recommended Plan and will not be reanalyzed.	N/A

160	*Jennifer Allyn*	Private Citizen	15-1	I am a longtime resident of Long Beach and live and for the last 15 years I have been following the battle of the breakwater. As a beach lover and surfer, I initially thought the idea of bringing back surf to a wonderful idea. However, after extensive reading and a better understanding of what was entailed and what was at risk, I changed my mind. As my concern over climate change and the environment grew, I cannot in good conscious support any alteration to the breakwater. I have long found the absence of any mention of climate change in the breakwater coverage glaring. As other cities search to harden their coasts to increasingly violent storms and flooding, removing our protections seems as insane as what the city has done to Broadway by creating those bike lanes. Reading the various plans, I became very excited about the scarce restoration habitat plan (aka plan 9 or plan 4). I became even more excited when I learned recently that the Army Corps of Engineers had selected the same plan I favored. I urge the City Council to select the Scarce Habitat Restoration Plan as their recommendation. It would be historic for the City to environmentally address the pollution problem and water quality issues through these solutions. I would be so proud of my city to be the site of such a project. It makes the 15 years and the money spent to study this issue well worth it.	Thank you for your comments, and for your support of ecosystem restoration in East San Pedro Bay. The USACE and City plan formulation process resulted in Alternative 4A as the Recommended Plan. The full explanation can be found in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out. Alternative 8 "Scarce Habitat Restoration Plan" was not selected as the NER Plan as summarized in Final IFR Section 6.2 Identification of the NER Plan, primarily due to excessive costs. Alternative 4A does meet the criteria of being the NER Plan as it is the plan that most reasonably maximize net ecosystem restoration benefits as compared to costs.	N/A
161	*John Kindred*	Long Beach Environmental Alliance	16-1	My name is John Kindred, and I'm Co-Founder of Long Beach Environmental Alliance and belong to number other Environmental Organizations. With all that's going with Climate Change and Sea Level Rise, and will happen in the years to come, I agree the Breakwater should not come down. I the past with the Breakwater we have had problems with Storms, King Tides and without it things would have been worse. So to take it down or remove any part of it would not do good but make things worse. Also as a past member of the Surfrider Long Beach Long Beach Chapter, I know they did not tell everything and was wrong in not being up front on everything or address their own information on Climate Change and Sea Level Rise, specially when it came to City of Long Beach. All-one have to do is look at what was said in past newspapers and meetings for this. There are few things I would like see added to the (East San Pedro Bay Ecosystem Restoration Feasibility Study Report) is to hold meetings at all levels to cleanup the Bay. Long Beach Surfrider, has said a number of times we should take down the Breakwater to let all the trash out the Bay, by taking down the Breakwater but that would be 100% wrong. What we should be doing from Community Organizations, Cities Level and with the Army Corps and find ways to keep Cities from dropping trash in the two rivers that feed into the Bay. City of Long Beach does not do a good job when it comes to keeping trash out of its beaches, waterways, and two rivers that feed into the bay. This problem is not just City of Long Beach but also any other City that trash ends up in the two rivers to Long Beach. If you can, on Monday, December 9, 2019, at the Aquarium of The Pacific, Public Community Meeting address this to get everyone to start talking?	Thank you for your comments. For an explanation of why Alternative 4A has been identified as the Recommended Plan, please see GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. The USACE does not have a response to comments related to local matters including clean-up efforts, which local Cities and the County of Los Angeles can address.	N/A

162	*Dave Booker*	Long Beach Marina Boat Owners Assoc.	17-1	1) If the objective is to improve the ecology and vitality of the study area, the opportunity space for constructing kelp, near shore, and rocky reefs should encompass the entire study area...not the original project area. I understand the city's objective in eliminating the breakwater limited the original project to the eastern portion of the harbor. Going forward, that restriction should not apply. Please find the time and money to explore other sitting options in the middle harbor and western harbor areas, before closing on the final version of this study.	Non-concur. It was not the City's objective to eliminate the breakwater. The goal of this project is to, "Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value of the San Pedro Bay within the proposed Project Area of East San Pedro Bay." The specific planning objective is to, "Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within San Pedro Bay." The reason for ESPB is largest opportunity area for restoration. The Study has focused on implementing these restoration features within the ESPB, since it is an ideal location to place these habitat types to help restore ecosystem structures and functions to the Study Area. Eastern San Pedro Bay is an ideal location for restoration as it's the largest remaining undeveloped area within the bay suitable for large-scale restoration; is not subject to existing ports, infrastructure, and intense vessel traffic that are considered to be habitat stressors. Placing restoration features in the immediate vicinity of the ports would violate constraints to not impact maritime operations. Please see GR-1: Restoring Complex Habitats Historically Present in the Study Area for further explanation of the project purpose and siting.	N/A
163	*Dave Booker*	Long Beach Marina Boat Owners Assoc.	17-2	2) Base line metrics for harbor vitality. The metrics identified are too limited. While the amount of surface kelp cover would seem important, the objective is to improve numbers and specifies of marine life. This isn't addressed. Appendix D Table 1 identifies the species we would expect to see in the harbor. We need to count them before we start, and measure success by improvements in their number and type.	Partial concur. The objective is not "numbers" but providing structure and function and building the habitats. As stated in Final IFR Section 2.2.2 Planning Objectives, the specific planning objective is to, ***Restore and support the sustained functioning of aquatic habitats such as kelp, rocky reef, coastal wetlands, and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species within the SPB during the period of analysis (50 years).*** ESPB restoration is focused on the restoration of habitats and the processes that maintain them, not the restoration of individual species. Section 2.2.2 further clarifies, "For this Study, the term "restoration" includes provision of habitat structures (or the conditions for habitat establishment) to support ecosystem functions. To clarify, this study aims to target restoration of "complex" aquatic habitat types historically present in the greater San Pedro Bay ecosystem, inclusive of kelp reef, rocky reef, eelgrass, oyster beds, sandy emergent islands, and coastal wetlands, of sufficient quantity and quality to support diverse resident and migratory marine and terrestrial species associated with the bay. This complexity is achieved through the three (3) associated sub-objectives noted above. The intent then is to focus on restoration of habitats rather than individual species (except for those habitats that are created by a single or dominant species, e.g., eelgrass or oyster beds). This approach avoids prioritizing some species over others." Recent evidence from NOAA's rocky reef restoration project off the Palos Verdes coast has clearly demonstrated the ability for restored habitat to attract and maintain marine life (https://www.oxy.edu/academics/vantuna-research-group/palos-verdes-reef). Additionally, pre- and post-Construction surveys will be performed throughout the proposed Project Area and reference sites will be used to monitor and evaluate the success of restoration sites.	N/A
164	*Dave Booker*	Long Beach Marina Boat Owners Assoc.	17-3	3) Native Kelp is currently in stress....impacting success of the proposed kelp areas. The Corp needs to reach out to experts on this one...both water temperature and explosion of purple urchin are to blame.	Partial concur. The USACE worked with experts in the field of marine restoration with expertise in restoring kelp, rocky reef, and eelgrass, as noted in the Final IFR Section 1.3.1 and in Section 8.3 as well as in appendices. Based on their guidance and currently accepted restoration practices for kelp, the USACE is confident that restored kelp within East San Pedro Bay will be successfully restored. The Final IFR, Section 4.5.2, sub-sections "Rationale for Kelp Beds" and "Alternative 2 Kelp Beds Siting and Design Considerations" describes the siting and design factors that were considered to address the long-term sustainability of kelp. In addition, a Monitoring and Adaptive Management Plan and Adaptive Management Team will include technical experts in kelp restoration and management and will inform the performance of kelp restoration as well as provide adaptive measures to ensure its success (see Appendix F).	Appendix F
165	*Dave Booker*	Long Beach Marina Boat Owners Assoc.	18-1	The draft report dismisses impacts to recreational boating within the project area. The proposed changes are in areas commonly used for kite surfing, wind surfing, and sailing. Where construction would raise the minimum draft to 15 feet or less should be considered hazards to navigation. Exact placement of the restoration construction should including input from those that use that area heavily.	Non-concur. Please see GR-8: Recreation Impacts for more information on how boater impacts have been acknowledged in the Final Report. Alternative 4A has been identified as the Recommended Plan and meets the project objectives of ecosystem restoration. Due to this project authority and purpose for ecosystem restoration, not all impacts can be eliminated. However, as noted in the report, boater impacts are acknowledged, and efforts have been and will continue to be made to reduce those impacts. "Where construction would raise the minimum draft to 15 feet or less should be considered hazards to navigation." There is reference in the Final IFR Section 5.12, Aesthetics and Visual Resources, to placement of navigational aids. "At the same time as project construction, fixed aids to navigation (ATON) would be installed within the proposed Project Area indicating the locations of nearshore rocky reefs." Coordination with the U.S. Coast Guard is ongoing to identify, mark and chart all potential hazards as a result of project construction and to determine type of ATON.	Section 5.16.2

166	*Dave Hall*	Private Citizen	19-1	Personally, I favor both the Tentatively Selected Plan which is the open-ocean ecosystem restoration plan and the Scarce Habitat Restoration Plan which would provide a sandy island for the California Least Tern, an endangered species.	Thank you for your comments and support of the NER Plan, which has been identified as the Recommended Plan in the Final IFR. The full response can be found in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. The Recommended Plan restores 200 acres of complex and highly productive coastal habitats including kelp beds, rocky reefs and eelgrass. This plan maximizes ecosystem restoration benefits in East San Pedro Bay compared to costs. Sandy Islands, as part of Alternative 8, was not selected as the NER Plan as summarized in Final IFR Section 6.2 Identification of the NER Plan, primarily due to excessive costs compared to habitat output. In addition to the high costs, sandy islands had high maintenance costs, and potential to not perform as designed.	N/A
167	*Dave Hall*	Private Citizen	19-2	I agree with the United States Fish and Wildlife Service that the Scarce Habitat Restoration Plan would benefit species displaced by the original construction of the Harbor itself in the Wilmington Lagoon many decades ago. However, I can find no mention of two endangered species which use the rocky Breakwater as habitat. The Black Oystercatcher and Ruddy Turnstone are two species that currently benefit from the Breakwater.	Thank you for your comment. The Black Oystercatcher, a Bird of Conservation Concern, is discussed in Sections 3.6 and 3.7 of the Final IFR-EIS/EIR.	Sections 3.6; 3.7
168	*Dave Hall*	Private Citizen	19-3	I am also concerned about the effect of turbidity from construction on sight feeders such as the California Least Tern.	Thank you for your comment. Impact from construction (e.g., increased turbidity) are expected to be minor and short term. The nearest CA Least Tern breeding site is approximately 3 miles from the proposed Project Area and impacts to CA Least Tern are considered to be not significant as the species is infrequently observed within the proposed Project Area (3-22). We will obtain a Clean Water Act section 401 Water Quality certification which will provide limits to turbidity along with a requirement to monitor water quality during construction. Best Management Practices for turbidity reduction during construction along with water quality monitoring and regulatory compliance are included as Environmental Commitments in Section 5.3.1 of the Final IFR-EIS/EIR.	Section 5.3.1
169	*Lesley Donovan*	Private Citizen	20-1	I only learned today that the Army Corps of Engineers recommended against altering the breakwater. I live at 1500 E. Ocean Blvd, directly on the beach and have long been unhappy with the water quality and lack of waves in Los Alamitos Beach/Bay. I have lived in California beach communities since 1957 and have never encountered dirtier sea water. I lived in Palos Verdes in the mid-sixties when the Army Corps dredged to add sand to the beach in Redondo Beach, enormously improving the experience of those using the area for swimming and surfing…and just reveling in the beauty of the extended shoreline. I've not read any evidence showing that altering the breakwater in Long Beach would be detrimental to sea life in any way that couldn't be remedied by other means. Los Alamitos Bay is nothing but a dirty, sludgy pond where we should have a seaside community. Please keep me posted on these issues.	Thank you for your comments. See GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for an explanation of how circulation was addressed in this study and why water quality is not an ecosystem restoration objective in the context of this Study. Alternative 4A was identified as the Recommended plan, as summarized in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also explains why breakwater plans were screened out.	N/A

170	*Alan J Reid*	Jacobsen Pilot Service	21-1	I am an interested party in the COE decision not to reconfigure the breakwater in East San Pedro Bay and I fully support that decision. I am a homeowner on the Peninsula Area of LB, have worked in the LA/LB Harbor since 1980 and since 1986 have been a Harbor Pilot for Jacobsen Pilots in LB. I have 2 major concerns, the first being a homeowner in the affected area. Since I moved there in 2003 the City of LB has spent hundreds of thousands of dollars every year to reinforce the sand berm fronting the Peninsula. Even with this action approximately 12 times since then I have personally witnessed high tides and large swells overcoming this barrier and water flooding over portions of the wooden seawall and running down to the storm drains leaving sand, seaweed etc on the walkways. I am not aware of any homes being flooded but removing any part of the breakwater will surely add to this action and will certainly result in lawsuits by affected property owners in case of damage or flooding. For this reason alone, protection of infrastructure, the breakwater needs to be kept intact. Second as a working harbor pilot having piloted over 16,000 ships in my career know only too well the effects of a large swell on both the port economy and infrastructure with hundreds of millions of dollars at stake if work is interrupted at the port. Damage to the existing breakwater in years past has cost tens of millions of dollars to repair. Spending more millions to reduce this protection is not only unwise but I believe, unprofessional. Not to mention the national security issue for the Seal Beach Naval Weapons Station explosive anchorage; which we also pilot navy ships in and out of as L B Pilots! I see no advantage to anyone by cosidering the removal of any part of the breakwater. I do however see a huge downside to any part of removal. Not even counting the hundreds or thousands of individual lawsuits after the first damage, work stoppage or flooding as a result of a high tide and large swell not being minimized by the breakwater. I trust the COE also sees it this way and I reiterate that I fully suport this decision as the only prudent and realistic one.	Thank you for your comments. Please see the full response in GR-4: Support for Keeping the Breakwater Intact.	N/A
171	*John Z. Strong*	Jacobsen Pilot Service	22-1	I would like to express my support of the Army Corp's decision to not modify the Long Beach Federal Breakwater. I am an avid surfer, sailor and professional mariner who works and lives in Long Beach. There is tremendous value that the breakwater brings to the City of Long Beach. The revenue generated by the Port of Long Beach through the Carnival Cruise Terminal and Pier J Container Terminal and the ideal sailing conditions demonstrated by the world class sailing regattas, including the Congressional Cup, far outweigh the loss of surfing, especially considering that surf beaches are within minutes in Seal and Huntington Beach. The argument of reducing pollution through dilution is misguided. The discussion driven by science has focused on reducing pollution at its source, up the LA River, which is a positive benefit. I encourage the ACOE to hold firm against upcoming pressure by political and special interest groups.	Thank you for your comments. Please see the full response in GR-4: Support for Keeping the Breakwater Intact.	N/A

172	*Robert Lukowski*	Jacobsen Pilot Service	23-1	I am writing to voice my support for your plan USACE Alternative 4. I am a Long Beach coastal resident and I am very concerned about any plan to remove or alter the East Breakwater. I also work in the port of Long Beach as a pilot for Jacobsen Pilot Service. The breakwater serves multiple functions. Protecting the Seal Beach NWS, providing safe anchorage for commercial vessels, protecting the Oil Islands and the Carnival Cruise Terminal and protecting millions of dollars of coastal real estate. Any plan to alter or remove the breakwater must be rejected. The plan to improve marine habitat is very welcome news. With the threat of rising sea levels perhaps the breakwater needs to be even higher and reinforced.	Thank you for your comments and support of the NER Plan, which has been identified as the Recommended Plan in the Final IFR. The full response can be found in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out.	N/A
173	*Bob Blair*	Jacobsen Pilot Service	24-1	… Since 2003, I have been a Harbor Pilot for Jacobsen Pilot Service here in the safe waters of the Port of Long Beach. The Federal Breakwater helps me and my coworkers to safely moore and move ships with the waters of the Port of Long Beach. ...As I write this letter I can see many benefits of our great Federal Breakwater as it sits today. There are ships anchored safely inside, there is oil being pumped safely from the 4 oil islands, there is a Carnival ship moored at H-4, Catalina Express boats are transiting and mooring safely, the bait barge is safely conducting their Buisness with boats tying up and buying their bait, people are sailing small boats and families are walking on the beach with their kids without the fear of massive waves. I can see homeowners on the Peninsula knowing that their homes are safely existing as result of the protection of our Federal Breakwater. Please do not remove or modify our existing Federal Breakwater!	Thank you for your comments. Please see the full response in GR-4: Support for Keeping the Breakwater Intact.	
174	*Chris Halsted*	Jacobsen Pilot Service	25-1	I am an interested party in the COE decision not to reconfigure the breakwater in East San Pedro Bay and I fully support that decision. I am a home owner in Naples and my family also has a home on the Peninsula. I also work as a boat Captain in the Port of Long Beach I have 2 major concerns, the first being a homeowner in the affected area. Since My family built a home on the peninsula in 1995 the City of L B has spent Millions of dollars every year to reinforce the sand berm fronting the Peninsula. Even with this action since I have personally witnessed high tides and large swells overcoming this barrier and water flooding over portions of the wooden seawall and running down to the storm drains leaving sand, seaweed etc on the walkways. For this reason alone, protection of infrastructure, the breakwater needs to be kept intact. I see no advantage to anyone by cosidering the removal of any part of the breakwater. I do however see a huge downside to any part of removal. Not even counting the hundreds or thousands of individual lawsuits after the first damage, work stoppage or flooding as a result of a high tide and large swell not being minimized by the breakwater. I trust the COE also sees it this way and I reiterate that I fully suport this decision as the only prudent and realistic one.	Thank you for your comments. See GR-4: Support for Keeping the Breakwater Intact.	

175	*Dan Kennedy*	Jacobsen Pilot Service	26-1	I am a lifelong Long Beach Alamitos Bay resident. I have had the pleasure of enjoying both the bay and ocean sides of the peninsula due to the protection of the breakwall. I have worked in the harbor for Jacobsen Pilot Service as a Pilot Boat Operator for the past 24 years. I have seen some tremendous storms throughout the years that I'm sure would've been devastating to the community of the Peninsula as well as the shipping terminals without the protection of the breakwall. On a daily basis I frequent the peninsula to exercise on the beach. And for the last few years there's been a constant flow of trucks transporting sand from the Granada launch ramp area to the peninsula. As soon as we get a normal high tide with a weather system, a majority of the sand from the peninsula is washed away. I can only imagine what would happen to the Peninsula if there was no breakwater. I've witnessed large storms that originate from a certain degree and angle, that enter the port through the East End of the breakwall and at the Long Beach Entrance, damage port roadways and part ship lines at some terminals. The removal of the breakwall would magnify this damage and slow, if not halt some port operations when a storm rolls through. I fish the federal breakwall on a consistent basis and the amount of marine life out there is astounding. The removal of this habitat would make this area a wasteland. We don't have this sort of structure of this magnitude anywhere along the coast. I strongly encourage that the breakwall remains intact for the benefit of marine life, beach front living and commerce.	Thank you for your comments. See GR-4: Support for Keeping the Breakwater Intact.	N/A
176	*Preston Smith*	Private Citizen	27-1	It is time for reality, the BREAKWATER WAS NOT BUILT FOR THE NAVY IN WWII it was built to protect property on the Peninsula and in Belmont Shores, which it does today. The false Navy story masks the important facts of heavy damage by the storms of the 1930's especially January 1939 and the Mexican hurricane September 29 1939. The sand was blocked at the mouth of the LA River by Breakwater II and the Port of Long Beach, causing sand starvation of the beaches. This caused the many sea walls along the beach we see today. The third section (and fourth never built) LB Breakwater was authorized in the 1930's before the war, the fleet moved to Hawaii in 1940, and the Breakwater was built 1946-1949 after the war. There are numerous pictures showing 50 Navy ships behind the first two sections in 1923 and 100 in 1933 , before the transfer to Hawaii. There was no need for more breakwater for the Navy but critical need to protect property, the real reason. Please use caution in planning reefs etc in San Pedro Bay Eastern Section. Oil Island Chafee altered currents that changed the beach at 72Pl on the Peninsula from quiet and relatively stable with a sandbar in front, to an erosion hotspot and needing a revetment that barely helps today. The currents in the Bay are very complex as the Port surge studies have showed.	Thank you for your comments. Following completion of the feasibility study phase, and during the next Pre-Construction Engineering and Design phase, USACE will conduct physical modeling at our research center to validate all the assumptions made during this feasibility stage. USACE will not increase the risk to coastal hazards.	N/A

177	*Bob Blair*	Private Citizen	28	…my concerns are wave and swell activity inside the breakwater being protected; the effects on recreational motors, team fishing, diving, safe havens in the breakwater for the Naval operations and the daily anchorage that's a valuable asset; erosion on the beaches being preserved and protected with the breakwater being maintained; property damage to homes on the peninsula. Any sort of reduction in the breakwater could cause more erosion there. The oil islands being protected, they are important. Shoreline marina protected. They are all protected by the breakwater. That's vital to keep those businesses safe. And as a pilot, what we see is the ships being safetly boarded and cargo operations being safetly conducted, ships not being tossed around in swells or surge or stuff like that. It still does happen with the breakwater in its present configuration, but anything less would make that worse. So we need the breakwater to protect and preserve that operation.	Thank you for your comments and for taking time to attend the public meeting in December 2019. Thank you for your comments. Please see GR-4: Support for Keeping the Breakwater Intact and GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan for a full discussion of the Recommended Plan.	N/A
178	*Dave Booker*	LBM Boat Owners	29	(a)"… I'm just going to ask that maybe you change a few words because you correct account for five boats in this harbor that use this every week, and we have a number of organizations that are using that particular piece of water every week. (b) I would ask that you include siting. I'm assuming we could move some of those little things around to minimize the impact on recreational us of that facility or not. (c)…there's some organizations and associated yacht clubs that still have three or four races every week in that – every Saturday and every Sunday in that area. (d)…if you come up above 15 feet in water depth, then we are going to create a hazard for recreational boaters. And those kelp fields, if they are really fit to be healthy the way you want them to be healthy, you should really recognize that those become no-flow zones for recreational boaters. All of the skippers are going to get into where the kelp fields are, and it will get caught in their rudders and propellors, and the tow boat is going to have to come out, or the lifeguard is going to have to come out, or the sheriff is going to have to come out and pull them out. (e) …how this whole thing came about, which was take the breakwater down 3 to 12 feet, the study really – the study area and the project area are two different kinds of animals that I cannot see, why the kind of changes you are composing here on the east end of the breakwater can't be applied to the middle breakwater and all the way over to Cabrillo. The study area is correct, but the application of these solutions to build a more robust habitat is applied in a very narrow band."	Thank you for your comments and for taking time to attend the public meeting in December 2019. (a) Section 3.16 of the Final IFR, "Sailing and Recreational Boating" section states there are the 40,000 launches annually and does mention the variety of organized races and regattas that take place in ESPB annually. (b) As indicated in the Final report with Environmental Commitment RC-1, During the Pre-Construction Engineering and Design (PED) phase, USACE will meet with boating stakeholders to identify practicable design refinements that reduce and minimize impacts to recreational boating while still meeting project objectives and avoids violating project constraints. (c) same as (a) (d) All offshore features (<25' MLLW) have a crest height no higher than -15' MLLW. The nearshore reefs (currently >25' MLLW) may have elevations up to -3' MLLW. Coordination with the USCG will ensure all potential hazards are properly identified, marked and/or charted. There is reference in the Final IFR Section 5.12, Aesthetics and Visual Resources, to placement of navigational aids. "At the same time as project construction, fixed aids to navigation (ATON) would be installed within the project area indicating the locations of nearshore rocky reefs." Coordination with the USCG is ongoing to identify, mark and chart all potential hazards as a result of project construction and to determine type of ATON. (e) The other two breakwaters were not part of the proposed Project Area, and any modifications to those would result in severe impacts to the ports and related maritime operations. GR-7: Breakwater Plans in the Plan Formulation Process explains the role of breakwaters in the planning process and why they were screened out due to violation of planning constraints and excessive costs. Eastern San Pedro Bay is an ideal location for restoration as it's the largest remaining undeveloped area within the bay suitable for large-scale restoration; is not subject to existing ports, infrastructure, and intense and constant commercial vessel traffic that are considered to be habitat stressors. This rationale for ESPB as the proposed Project Area is fully explained in GR-1: Restoring Complex Habitats Historically Present in the Study Area.	N/A

179	*Colin Kelly*	Orange County Coastkeeper	30	"(a) We wondered if you would analyze the benefits that improved circulation could have to the East San Pedro Bay for water quality since that's one of the issues that I know the environmental groups are focused on. Not only restoration, but improving water quality, oxygenation, things like that, in San Pedro Bay; and if that wasn't considered, it probably should have been, in our opinions, considered as a benefit, a water quality benefit and benefit to the City. (b) My experience with Long Beach and the peninsula with issues of erosion, that might be a perfect location to add oyster beds in addition to eelgrass beds as a possible restoration activity that would, in the long run, likely save the City money for not having to transport as much sand over to the peninsula. (c) I think, the location of the kelp beds, of the the issues, is, as an environmental attorney, it really helps to get boaters on your side. That is a glaring issue of putting kelp beds at the entrance of Alamitos Bay that I think the boaters welcome that being moved somewhere so it's not going to be a larger problem. If it's an issue of not a lot of migration because there's not adequate substrate and the kelp is not going to want to attach to sandy bottoms, I can totally see that; but I think that just needs to be explained a bit better. (d) And I would also question, since it's so near some of the Naval facilities and where the Naval mooring is, that's going to be an issue, having the vessels going over that, not that it would harm the vessel; but going over healthy kelp would maybe not be the best idea. (e) A question as to how this might impact the City's preparation for the Olympics, if this is going to be completed in 2020, this will be an issue."	Thank you for your comments and for taking time to attend the public meeting in December 2019. As indicated in the Final IFR, the Recommended Plan is Alternative 4A, which meets the criteria of being the National Ecosystem Restoration (NER) Plan as it is the plan that most reasonably maximize net ecosystem restoration benefits as compared to costs. (a) Please see GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered. b) There is too much wave energy for oyster beds in/around the nearshore reefs. Oyster beds around the jetties were included in Alternative 8, but it ultimately was not selected as the NER Plan. This is summarized in the Final IFR Section 6.2 Identification of the NER Plan; primarily due to excessive costs (not from oyster beds). The Final IFR does note the potential incidental benefits to shoreline erosion at Peninsula from the nearshore rocky reef in the NER/Recommended Plan. (c), (d) Kelp beds are generally sited away from large vessel traffic. As indicated in the Final Report with Environmental Commitment RC-1, during the Pre-Construction Engineering and Design (PED) phase, USACE will meet with recreational boaters, the Navy and other ports stakeholders, to identify practicable design refinements that reduce and minimize impacts to boating and navigation while still meeting project objectives and avoids violating project constraints. Within Section 6.3.1 Kelp Bed Construction Considerations, it's made clear that kelp construction consists of rock placement for kelp forests to establish. (e) As noted in Section 6.3 Recommended Plan and in Appendix A, the Final IFR takes into account the Olympics in construction assumptions. Construction phasing includes an approximate 18-month blackout period where construction activities will cease during the 2028 Summer Olympic Games. Construction leading up to the Olympics will be located seaward of the Long Beach Breakwater. Construction would resume in Spring 2029 long after the conclusion of the 2028 Summer Olympics.	N/A
180	*Chris Halsted*	Jacobsen Pilot Service	31	(a) The biggest concern with the breakwater or any alteration with it is the current erosion and wave activity we have right no. The City spends hundreds of thousands of dollars on sand relocation as it is down on the peninsula; and every day, sometimes 7 days a week, sometimes 24 hours a day, if there's an upcoming storm or swell, there's trucks coming up and down that peninsula, and they are unable to keep up with the erosion with the current configuration of the breakwater. With things like climate change and rising sea levels, why would we think of moving any sort of protection for these homes? (b) So back with the water quality and things like that, I think the real problem and what really needs to be addressed is the LA River and the San Gabriel River. Until those are cleaned up, it's not going to do anything. You are just taking the pollution and moving it out to sea. You are putting it somewhere else. So fix the rivers, keep the breakwater, and protect the public homes.	Thank you for your comments and for taking time to attend the public meeting in December 2019. Thank you for your comments. (a) Please see GR-4: Support for Keeping the Breakwater Intact. As indicated in the Final IFR, the Recommended Plan is Alternative 4A, which meets the criteria of being the National Ecosystem Restoration (NER) Plan as it is the plan that most reasonably maximize net ecosystem restoration benefits as compared to costs. (b) Water quality is not an authorized purpose for this study. Please see GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for how these issues were addressed in the Study.	N/A
181	*Michele Grubbs*	Pacific Merchant Shipping Assoc.	32	Basically, I'm here on behalf of my company, who supports, by all who recorded their decisions, not to modify the East Long Beach Breakwater because doing so is going to impact the operational capabilities of the port…. We support the Army Corps' analysis showing that the breakwater modifications resulted in no habitat value and modifications were insufficient in terms of cost per acre and restoration.	Thank you for your comments and for taking time to attend the public meeting in December 2019. Thank you for your comments. Please see GR-4: Support for Keeping the Breakwater Intact. As indicated in the Final IFR, the Recommended Plan is Alternative 4A, which meets the criteria of being the National Ecosystem Restoration (NER) Plan as it is the plan that most reasonably maximize net ecosystem restoration benefits as compared to costs.	N/A

182	*Tom Jacobsen*	Jacobsen Pilot Service	33	I first want to say that all of us at Jacobsen Pilot Service are pilot operators, even myself, and fully support the Army Corps' decision to not modify the East Long Beach breakwater. I've spoken many times and written letters about our professional concerns and our opposition to put any modifications to the breakwater. Letting more waves and more swells into the East Bay will have severe consequences on the port business, to Carnival Cruise Line, to the oil islands, ships and anchors, the marina's and the homes on Belmont Peninsula. Again, we are fully supportive of your decision to not modify the breakwater.	Thank you for your comments and for taking time to attend the public meeting in December 2019. Please see GR-4: Support for Keeping the Breakwater Intact.	N/A
183	*Kip Louttit*	Marine Exchange of Southern CA	34	We too support the Corps of Engineer's decision not to modify the Eastern Long Beach Breakwater because doing so would significantly reduce the operational capacity of the ports, negatively impact the navigational channels, and acreages.	Thank you for your comments and for taking time to attend the public meeting in December 2019. Please see GR-4: Support for Keeping the Breakwater Intact.	N/A
184	*Robert Ballew*	Fishermen, Boaters, Environmental	35	The breakwater is basically a giant reef, and it's had 45 years for the marine life to develop and grow; and if you take it down, you destroy the top level of bait fish that provide the food and the survival of all the different types of marine life that gather there. We are not opposed. I'm representing the voters and divers and so forth for the underwater part of this. We have no opposition to the restoration as it's described, but we do have strong opposition to reduction and removal out there because you are just – all it's going to do is destroy a lot of sea life just to get some surfing waves, and I don't think it's worth the cost or the effort to do that. So hopefully, all of you will oppose everything except the restoration part of it.	Thank you for your comments and for taking time to attend the public meeting in December 2019. The NER Plan, which is fully restoration-focused, has been identified as the Recommended Plan in the Final IFR. The full response can be found in GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan / Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out. Please see the full response in GR-4: Support for Keeping the Breakwater Intact.	N/A
186	*John Kindred*	Long Beach Environmental Alliance	36	(a) I've seen the change. There's been talk about seawalls, the plywood on the peninsula; but all you have to do is look at the pictures that were taken during storms and how the waves went through those plywoods into people's homes with the breakwater. So imagine what would happen without it. We have no idea how high sea-level rise is going to be or storm surge. (b) Also, too, we are one of the few organizations that… go out on a boat and see all of the junk out there in the water and up the L.A. River and San Gabriel.	Thank you for your comments and for taking time to attend the public meeting in December 2019. (a) Please see GR-4: Support for Keeping the Breakwater Intact. (b) Water quality is not an authorized purpose for this study. Please see GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for how these issues were addressed in the Study.	N/A
187	*Steven Marron*	Surfer, retired teacher and Coach	37	I wouldn't want the breakwater to be modified if it were meaning that homes were going to be damaged. If some kind of acceptable wave action could be allowed to return, a lot of the kids in the nine council districts could bicycle, skate, go down to the beach, learn to swim, body surf, bodyboard, etc., because that would assist in low-cost opportunities a lot of them can't (get) right now. Swimming, which happens at a beach, doesn't happen in Long Beach. We go in up to our knees and ankles because we get sick. So, in summary, our biggest resource is our beach, and I just wish that everybody could work together to find a way to provide something for everybody that lives in this city. If we found a way to block wave action, perhaps we could find a way to restore it safely.	Thank you for your thoughtful comments and for taking time to attend the public meeting in December 2019. As you are aware, the study purpose was for ecosystem restoration. Water quality was considered in the context of habitat suitability, but not as a study objective. Nor were recreation improvements a study objective. Please see GR-5: Why Improvements to Circulation and Water Quality were not Reconsidered for further discussion on the role water quality and circulation played in the plan formulation process. As noted in GR-7: Breakwater Plans in the Plan Formulation Process, although breakwater plans were analyzed throughout the Study process, results show they provided no additional benefits for the complex habitat types targeted for restoration. In addition, the breakwater modifications would violate key planning constraints by impacting the U.S. Navy and other maritime operations, as described in Section 4.5.7 Breakwater Plans Analysis Summary of the IFR. Breakwater plans are also excessive in cost, identified at $600 million - $1 billion. Based on the above, breakwater plans were screened out from further consideration. With a coastal marine restoration project in close proximity to residents of Long Beach and the region, it would be rewarding to identify opportunities for all residents, regardless of means, to visit the coast and learn about the restored ecosystem.	N/A

188	*Sal Ferrigno*	SSA Terminals/ Pacific Maritime Services	38	I'm pleased to support this latest proposal because you found a way to restore the ecosystem and protect places like our terminal. If we – or if the breakwall was compromised, I'll tell you now, that the terminal would be shut down. It would be unsafe to work. And what the result of that would be to Long Beach is 25% of the containers that move through Long Beach move through Pier J Terminal. Those would be gone. What's happening now is back East is killing us. They are taking volume from us. Canada is taking volume from us. We need to protect what we have. We currently employ around 20,000 annual jobs at Pier J. That's just on the ship. And if you look at those are direct jobs. The indirect jobs are hundreds of thousands of jobs. So again, I'm very pleased to hear that the plans are not to compromise the break wall because compromising the breakwall would be detrimental to the Port of Long Beach and the community because there will be a lot of jobs lost.	Thank you for your comments and for taking time to attend the public meeting in December 2019. The NER Plan has been identified as the Recommended Plan in the Final IFR. Please see GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan/ Recommended Plan. GR-3 also briefly discusses why breakwater plans were screened out.	N/A
189	*Jennifer Zeil*	Private Citizen	39	I'm disappointed that the breakwater options aren't deemed… to be moved forward by the Corps… It looks scary, but I'm asking you to please look at other alternates to mitigate those impacts to military so we can get clean water, so our kids can swim in the water in Long Beach. And I think it is part of the Corps' – not the mission, but it's not out of the Corps' scope of work to consider those human aspects of it because what's good for our kids is also good for the habitat that's there, for the sea kelp. If it's healthy water, it's healthy for that.	Thank you for your comments and for taking time to attend the public meeting in December 2019. The NER Plan has been identified as the Recommended Plan in the Final IFR. Please see GR-3: Support for Alternative 4A / National Ecosystem Restoration (NER) Plan) / Recommended Plan. The Recommended Plan restores 200 acres of complex and highly productive coastal habitats including kelp beds, rocky reefs and eelgrass. This plan maximizes ecosystem restoration benefits in East San Pedro Bay compared to costs. Although Breakwater plans were included in technical analysis throughout the study process, results show they provided no additional benefits for the complex habitat types being restored. Breakwater modifications violate key planning constraints by impacting the U.S. Navy and other maritime operations. Mitigation from Breakwater modification impacts and protective measures were considered. Public health and various socioeconomic concerns were also considered. Breakwater plans are extremely costly at $600 million - $1 billion and do not provide additional habitat output. There are no further plans to study modifications to the Breakwater at this time.	N/A
190	*John Kindred*	Long Beach Environmental Alliance	40	(comment card) On Sea Levels; pollution; Storms(?)	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. Sea Level Rise is addressed in the Final IFR in Chapter 6 and in Appendix A. Pollution and water quality is not in our authority except as it pertains to habitat suitability.	N/A
191	*Robert Ballew*	Fishermen, Boaters, Environmental	41	(comment card) ___(illegible) boaters / divers	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. Written comments illegible and lack context or enough detail to respond. Please see your Comment #35 and response provided.	N/A
192	*Kip Louttit*	Marine Exchange of Southern CA	42	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A
193	*Tom Jacobsen*	Jacobsen Pilot Service/ Private Citizen	43	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A
194	*Michele Grubbs*	Pacific Merchant Shipping Assoc.	44	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A
195	*Chris Halsted*	Jacobsen Pilot Service	45	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A

196	*Colin Kelly*	Orange County Coastkeeper	46	Question regarding incorporation of oyster bed along wi/eelgrass restoration sites nearer the Peninsula. The nearshore of the Peninsula suffers from significant erosion. Improving habitat which reduces erosion could offset the City's (?) sand management costs and bring down the cost v. benefit.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. Written comments not fully illegible and/or lack context or enough detail to respond. Most comments appear to be addressed in response to verbal transcript above. Please see your Comment #30 and response provided.	N/A
197	*Dave Booker*	LBM Boat Owners	47	Project scope vs study scope; ____; Input on boat ?; next steps.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. Written comments illegible and lack context or enough detail to respond. Verbal comments above. Please see your Comment #29 and response provided.	N/A
198	*Bob Blair*	Jacobsen Pilot Service	48	Effects on operations (?)	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. Written comments illegible and lack context or enough detail to respond. Please see your Comment #28 and response provided.	N/A
199	*Sal Ferrigno*	SSA Terminals/ Pacific Maritime Services	49	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A
200	*Steve Marion*	Retired teacher and Coach	50	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A
201	*Unknown*	Aquarium of the Pacific	51	Have any tests/ studies been done to see if kelp will even grow and/or do well in the areas designated on the maps? Sea surface temperatures are increasing(?) and kelp region wide is very vulnerable to these changes. In one of the stakeholder workshops I was in years ago my partner and I suggested looking at whether or not holes could be added at key locations of the Bottom of the breakwater, or even tunnels underneath to allow colder waters to enter the Bay without putting shorelines at risk. Finding ways to give the planned kelp access to cold water is key for their survival.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. The USACE worked with experts in the field of marine restoration with expertise in restoring kelp, rocky reef, and eelgrass, as noted in the Final IFR Section 1.3.1 and in Section 8.3 as well as in appendices. Based on their guidance and currently accepted restoration practices for kelp, the USACE is confident that restored kelp within East San Pedro Bay will be successfully restored. The Final IFR, Section 4.5.2, sub-sections "Rationale for Kelp Beds" and "Alternative 2 Kelp Beds Siting and Design Considerations" describes the siting and design factors that were considered to address the long-term sustainability of kelp. In addition, a Monitoring and Adaptive Management Plan and Adaptive Management Team will include technical experts in kelp restoration and management and will inform the performance of kelp restoration as well as provide adaptive measures to ensure its success (see Appendix F). Thank you for participating in the 2016 Stakeholder Workshop. As a result of that workshop, and several other sources, over 200 measures were compiled and considered early on in the planning process. Many were screened out due to being highly unlikely or infeasible, including the concept of tunneling through the breakwater. Although not listed specifically in the Final IFR, Section 4.2.1 Measures Screening #1 (Initial Screening) does note those measures that were screened early.	N/A
202	*Jennifer Zell*	Private Citizen	52	No comment on comment card; verbal comments are transcribed above.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card.	N/A
203	*Eric Morgan*	Area Sportfishing Industry	53	The area sportsfishing industry would like to think we've been good neighbors in being conscious in how we operate w/respect to maintaining quality to the marine environs/wildlife. We just want a "seat at the table" on how to keep areas accessible to us during and after the project takes place, particularly if Marine preserve designations are contemplated.	Thank you for taking time to attend the public meeting in December 2019, and to fill out a comment card. Key stakeholders are welcome to have "a seat at the table" as project is being refined. As indicated in the Final Report with Environmental Commitment RC-1, during the Pre-Construction Engineering and Design (PED) phase, USACE will meet with boating stakeholders to identify practicable design refinements that reduce and minimize impacts to recreational boating while still meeting project objectives and avoids violating project constraints. No "marine preserve" is being considered in the Final IFR.	N/A
204	*Cleve Hardaker*	Former President RBOC	54-1	Kelp beds constructed in the vicinity of the very busy Alamitos Bay entrance will present serious hazards to the many recreational boaters and fishermen coming and going at all times of the day. At the very least, obstructions to the approach to Alamitos entrance will cause traffic density problems with reduced maneuvering room increasing the risk of vessel collisions.	Thank you for your comments and for taking time to attend the January 2021 stakeholder meeting. There is reference in the Final IFR Section 5.12, Aesthetics and Visual Resources, to placement of navigational aids. "At the same time as project construction, fixed aids to navigation (ATON) would be installed within the proposed Project Area indicating the locations of nearshore rocky reefs." Coordination with the U.S. Coast Guard is ongoing to identify, mark and chart all potential hazards as a result of project construction and to determine type of ATON.	N/A

Appendix N

SECTION 3

LETTER OF SUPPORT BY CITY OF LONG BEACH

CITY OF
LONG BEACH

Office of the City Manager
411 West Ocean Boulevard, 10th Floor Long Beach, CA 90802
(562) 570-6711

December 22, 2021

Eduardo T. De Mesa
Chief, Planning Division
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard
Los Angeles, CA 90017

Subject: Recommended Plan for the East San Pedro Bay Ecosystem Feasibility Study

Dear Mr. De Mesa:

The City of Long Beach (City), as the local sponsor, originally set out to resolve a big community challenge related to the reconfiguration of the Breakwater, that would simultaneously provide ecosystem restoration to the East San Pedro Bay area. The City and the United States Army Corp of Engineers (USACE) worked collaboratively throughout the study to explore the possibilities for breakwater modifications and consider all feasible options. The City appreciates the time and effort expended by you and your staff to accomplish the commitment to the community. However, given the lack of breakwater modifications, the increased cost, and the focus on restoration elements such as kelp and rocky reefs, the National Ecosystem Restoration (NER) plan does not appear to have significant support from the community at large. Nonetheless, the City is supportive of the efforts to complete the project and achieve the Chief's Report milestone.

As part of the City's commitment, it is understood that should there be future community support and the project move forward, the costs identified for design and implementation of the NER Plan would be shared with the USACE. The City also understands that this letter does not financially commit the City to future expenditures in advance of an executed cost sharing agreement.

On behalf of the City, I would like to express gratitude for our continued partnership with the United States Army Corps of Engineers (USACE) and congratulate the team on the progress that has been made on this important project.

If you require additional information, please contact Joshua Hickman, Business Operations Bureau Manager, at (562) 570-5714.

Sincerely,

Thomas B. Modica
City Manager