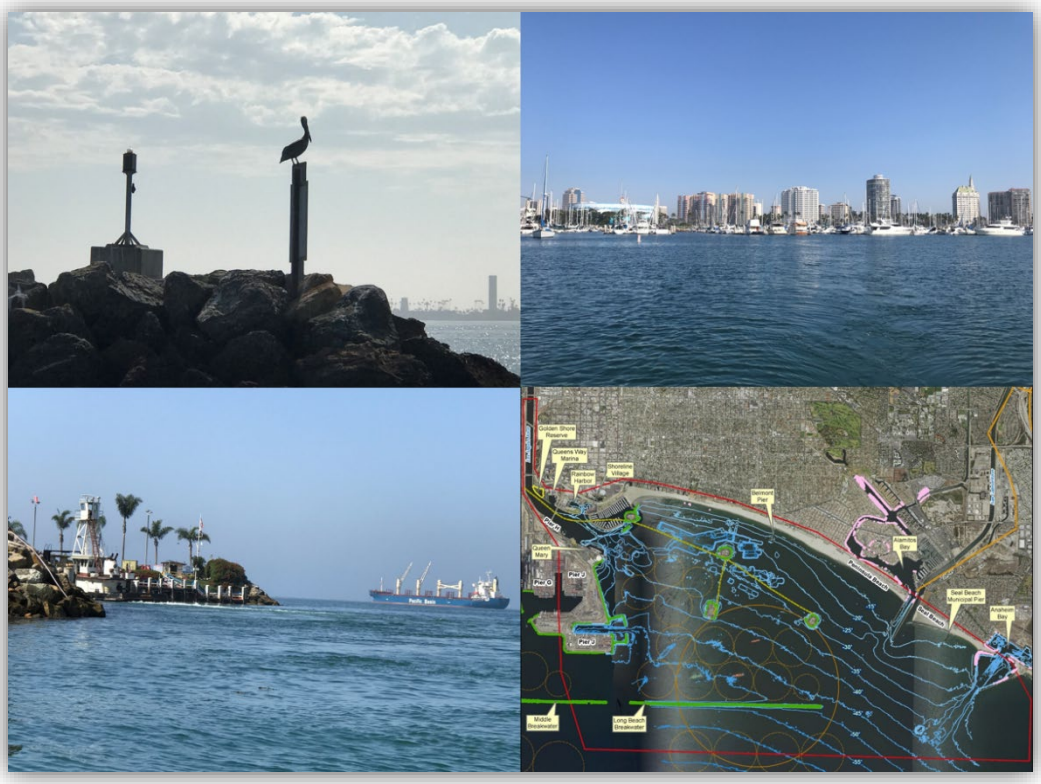
DRAFT INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL IMPACT STATEMENT / ENVIRONMENTAL IMPACT REPORT (EIS/EIR)

APPENDIX H: USFWS COORDINATION ACT REPORT AND USACE RESPONSE

EAST SAN PEDRO BAY
ECOSYSTEM RESTORATION STUDY
Long Beach, California

November 2019



US Army Corps of Engineers ®

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From: Avery, Jon
To: Siddiqui, Naeem A CIV CESPL CESPD (US); Solek, Christopher W CIV USARMY (US)
Cc: Carol Roberts; Lovan, Hayley J CIV CESPL CESPD (US); Clifford, Jodi L CIV CESPL CESPD (US); Christine Medak; Bryant Chesney - NOAA Federal; Demesa, Eduardo T CIV USARMY CESPL (US); Jonathan Snyder
Subject: [Non-DoD Source] Planning Aid Letter for the proposed East San Pedro Bay Ecosystem Restoration Project
Date: Thursday, May 24, 2018 11:25:10 AM

Naeem and Chris,

This email suffices as our Planning Aid Letter (PAL) for the East San Pedro Bay Ecosystem Restoration Project (Project), as currently proposed. Due to time constraints and timing needs of the Army Corps we are not sending you a PAL as a formal letter, but this email functions in the same way pursuant to the Fish and Wildlife Coordination Act (FWCA).

The U.S. Fish and Wildlife Service (Service) has prepared this PAL for the U.S. Army Corps of Engineers (Corps) on the proposed Project to describe issues and opportunities related to the conservation and enhancement of fish and wildlife resources. The project, as proposed, would involve restoration and enhancement measures in East San Pedro Bay, near Long Beach Harbor and the City of Long Beach, Los Angeles County, California. The purpose of the proposed project is ecosystem restoration in East San Pedro Bay.

The proposed project area would involve portions of the Los Angeles County coast of the eastern Pacific Ocean, within about 2 miles seaward of the historic coastline, near the mouth of the Los Angeles River. These marine and existing estuarine areas have been heavily modified over the last century associated with development of Long Beach Harbor/Port of Long Beach and nearby civil engineering and commercial/urban development. The likely direct project footprint is within and near the boundaries of the Port of Long Beach.

This PAL is provided in accordance with the FWCA of 1958, as amended (48 Stat. 401; 16 U.S.C. 661 *et seq*.), the Endangered Species Act (ESA) of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 *et seq*.), and the scope of work agreed upon by the Corps and the Service. This PAL does not constitute the report of the Secretary of the Interior as required by section 2(b) of the FWCA, nor does it constitute a biological opinion under section 7 of the ESA. The purpose of this PAL is to deliver recommendations for use by the Corps design team in developing goals, objectives, and alternatives for the project.

Fish and Wildlife Coordination Act

The FWCA directs or authorizes consultation, reporting, consideration, and in many cases, installation/implementation of fish and wildlife conservation features. The authorities of the FWCA are considered to be “supplementary legislation” to the various Federal project authorizations, such as the Corps public works authorizations (Smalley and Mueller 2004). The FWCA conditions or supplements other water development statutes to require consideration of recommendations generated under the FWCA procedures, including portions of the Clean Water Act (Zabel v. Tabb, 430 F2d 199 [5th Cir. 1970] cert. denied 401 U.S. 910 [1972]). For Federal water resources development projects, the FWCA requires that fish and wildlife conservation receive equal consideration by Federal agencies with other project purposes, and that such conservation be coordinated with other project features. The FWCA authorizes the project implementation of means and measures for both mitigating losses of fish and wildlife resources, and for enhancing these resources beyond offsetting project effects (Smalley and Mueller 2004).

Project Area History

In 1542, Juan Rodriquez Cabrillo “discovered” the "Bay of Smokes" that is now San Pedro Bay, describing it from offshore aboard ship. The smoke he described above the bay may have originated from the several Native American villages that existed near the bay along the Los Angeles River at the time. Much of the south-facing San Pedro Bay along the coast was originally a shallow estuary and mudflat. See Figure 1 below.

In 1899 construction of the San Pedro Bay breakwater began near the project area. In 1906 the Los Angeles Dock and Terminal Co. started development of Long Beach harbor by purchasing 800 acres of sloughs and salt marshes associated with the Los Angeles River mouth estuary — an area that later became the inner portion of Long Beach harbor. In 1907 construction began on the Craig Shipyard in the inner harbor; the Craig Shipyard Company was also awarded a contract to dredge a channel from the open ocean to the new inner harbor. In 1911 the State of California granted the tidelands areas of what is now the Port of Long Beach to the City of Long Beach for port operations (Tidelands in California are defined as those lands and water areas along the coast of the Pacific Ocean seaward of the ordinary high tide line to a distance of three miles.). These tidelands were granted to the City of Long Beach in trust for the people of the State. This tidelands trust not only restricts the use of the tidelands, the tidelands and tidelands-related revenues of the Port must be used for purposes related to harbor commerce, navigation, marine recreation, and fisheries. The Port currently includes more than 7,600 acres of wharves, cargo terminals, roadways, rail yards, and shipping channels, and is one of the world’s busiest seaports.

An 8.5 mile-long breakwater made of rock stretches across most of San Pedro Bay, with two openings to allow ships to enter the harbor areas behind it. The initial western section of the breakwater, called the San Pedro Breakwater, was constructed between 1899 and 1911 at San Pedro; the middle breakwater was completed from 1911 to 1936, and the Long Beach breakwater was completed after World War II.

Considerable changes have occurred in the harbors since the 1970s. Some of these changes included deepening of navigational channels and basins, constructing substantial landfills at Piers 300 and 400 in Los Angeles Harbor, constructing a transportation corridor out to Pier 400, expanding Pier J in Long Beach Harbor, and constructing the west basin of the Cabrillo Marina complex. As part of mitigation for construction and channel deepening, shallow water habitats were created in formerly deepwater areas near Pier 300, the San Pedro Breakwater, and on the east side of Pier 400. The land/water coastal edge has largely been pushed south and most historically shallow water areas (e.g., estuarine zones) are now heavily modified or eliminated. The transition zones from relatively deep water to land are now largely artificially quite abrupt. Thus, substantial areas that were previously aquatic habitats are now land, some previous areas that were deep water are now shallow, and water circulation patterns within the harbors have been altered. Please see the figures below, including water depths where noted.

Description of the Project Area

The main project area is the coastal area off of the City of Long Beach and the Port of Long Beach; it is located on the Pacific coast of southern California in San Pedro Bay, at the southern end of the City of Long Beach, Los Angeles County; it is less than 2 miles southwest of downtown Long Beach and about 25 miles south of downtown Los Angeles. To the west and northwest of San Pedro Bay are the communities of San Pedro and Wilmington, respectively, and to the east is the community of Seal Beach.

Two competing and independent commercial ports, the Port of Los Angeles and the Port of Long Beach, share the San Pedro Bay marine ecosystem. These man-made harbors have been created through over a century of dredging and filling of the former 3,450-acre Wilmington Lagoon and surrounding areas. The Port of Los Angeles and Port of Long Beach encompass 7,500 acres and 7,600 acres of land and water, respectively. The Port of Long Beach consists of: 3,000 acres of land, 4,600 acres of water, 10 piers, and 80 berths. Uses within both ports are largely industrial, although a variety of other uses (e.g., recreation, commercial fishing) are also supported.

The outer limit of the Port of Long Beach and the coastal waters off of Long Beach are largely defined by breakwaters that were constructed of quarry rock during the early to mid 1900's (MEC 2002). The majority of the harbor waters within the Port of Long Beach currently range in depth from 30 to 60 feet (MEC 2002) with navigation channels dredged to depths of 45 feet and greater (USFWS 2000).

Recommendations

We have three main recommendations per the FWCA for the proposed project:

1) We suggest that more accurate evaluation and "weighting" of the existing functions of natural communities is needed by the Corps in areas where project features are proposed. This is so the environmental "lift", and the potential impacts of proposed project activities, can be effectively analyzed and alternatives more accurately assessed, located, and chosen. You have heard us strongly verbalize this issue at the last several meetings. A fair and frank assessment of what would be subject to effects (both lost and gained) will go a very long way towards having the public and the interested agencies feel comfortable with the Corps' analysis and alternatives for this and other projects. We have had this same problem with other LA District projects and we suggest that this (fairly accounting and analyzing existing pre-project ecological functions) become standard policy on all projects, including those with ecological restoration components. Several months back we commented on how the Corps was treating these existing areas (e.g., sandy bottom marine open water areas) as having essentially no existing ecological value when evaluating proposed project features. Now it appears that the Corps' current analysis trend is to note some value for these areas, but to effectively undervalue the areas where project enhancements are proposed, possibly with the goal of highlighting the ecological gains to be made with proposed activities. The regulatory agencies will internally adjust for representing existing functions this way, but it would improve trust and analysis efficiencies if baseline analyses/assessments by the Corps are more frank and accurate. We understand that these projects often involve ecological conversion of one ecological community type to another (with trade-offs), and these project should be fully and openly evaluated as such. Just as importantly, accurate analysis of existing ecological functions will provide for much better analysis and comparative choices of alternatives, because relative ecological lifts will be more accurate revealed. For example, in some cases for this project we (USFWS and NOAA) have recently suggested that no ecological enhancement/restoration actions be taken in locations where some substantial project measures were previously proposed by the Corps, based on moderately high functions that currently exist at those locations (but were rather simply evaluated by the Corps as having low or no current ecological value). We stress that this needs to be a fundamental change in how the Corps performs its analysis moving forward on all future projects.

2) We suggest that project alternatives more fully consider the substantial discount in construction costs for the proposed least tern/snowy plover "sandy island" creation near the existing breakwater, if partial breakwater removal is also proposed. This would be because waste rock from partial breakwater removal would be readily available, located nearby, and already being handled with heavy equipment. As such, this waste rock could relatively easily be transported and placed to form the basis for a largely sand-covered island on the north side of the remaining breakwater (out of shipping lanes and ship anchor zones, and protected from most swells and wave action).

3) We suggest that the Corps incorporate modified prioritization of the various ecological enhancement/restoration alternatives, by highlighting two criteria, wherever appropriate:
a) ecological restoration of native habitats or ecological processes that formerly existed in that specific location, particularly those that are now rare and/or important to listed species; b) ecological enhancement/creation (or provide functional substitute) of habitats or ecological processes that occurred in adjacent/nearby areas and that are now artificially quite rare or functionally eliminated (e.g., dunes, upper beach areas, dunes, river deltas, estuaries, eel grass beds, etc.) and/or are important to native biological diversity or sensitive/listed species. These measures should be located in areas that are currently degraded as a first priority, or secondarily otherwise of relatively low ecological function/importance. We suggest that alternatives that support improved status of listed species or sensitive species (e.g., islands with beach zones that are functional substitute for now eliminated sand spits, sandy river mouths, and isolated beach areas), or that enhance/create natural communities/habitats that support particularly high native biological diversity/native biomass (e.g., wetlands, diverse shallow water areas, kelp beds, undisturbed beach zones) have special priorities that are not normally captured in cost/benefit analysis and often warrant additional costs. We can assist you in developing ways to effectively highlight the special values of these habitats/ecological communities.

We do not have a favored alternative of those currently proposed. The sandy islands that we have been promoting as part of the Project over the last year-plus are largely related to lost and heavily degraded nesting areas for California least terns and western snowy plovers that formerly occurred in the project area but were lost to harbor and urban development; these include losses of ephemeral river mouth deltas/flats/sand spits, as well as relatively undisturbed lower and upper beach zones. While we, of course, would encourage inclusion of enhancement measures that would support the listed species under our purview, we are generally supportive of the ecological measures proposed throughout the range of alternatives and continue to look forward to working with you on refining the proposed alternatives.

Thank you,

Jon

Figures:

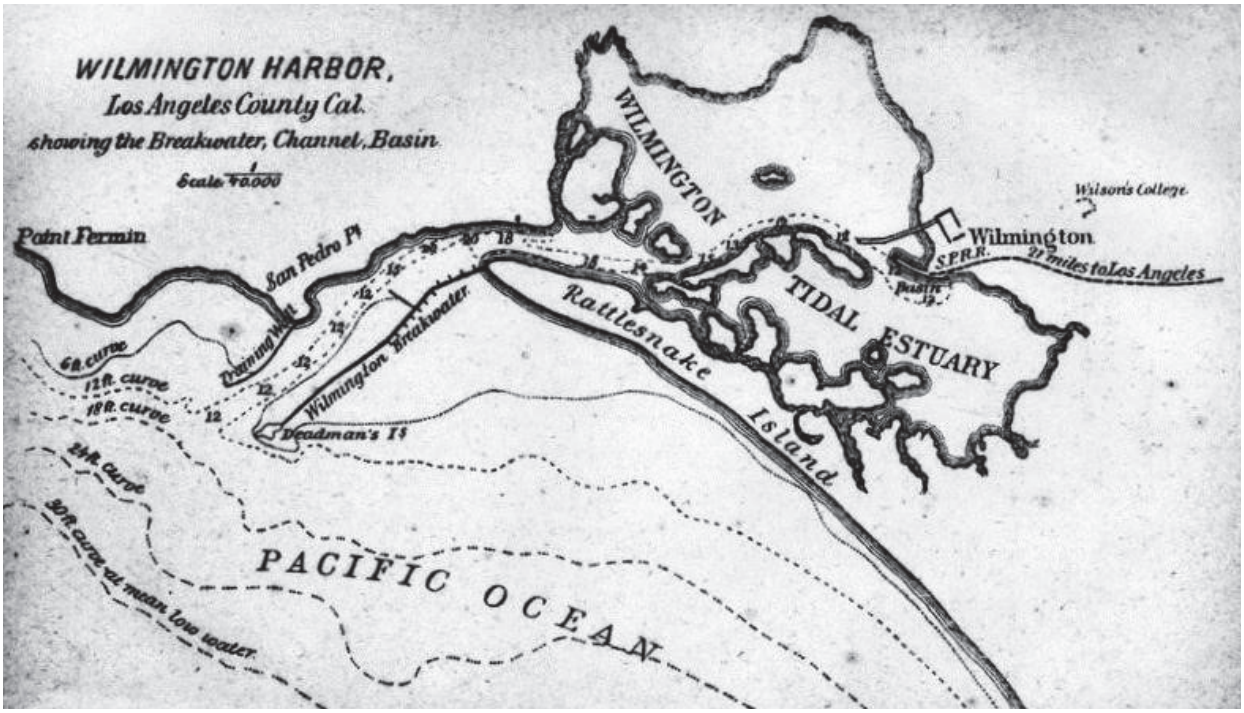

Figure 1. Circa 1880 drawing of Wilmington Harbor. The Future Port of Long Beach is on the east (right) side of the "Wilmington Tidal Estuary." "Rattlesnake Island" would later be expanded to become Terminal Island within the ports of Long Beach and Los Angeles (Water Power and Associates 2014).

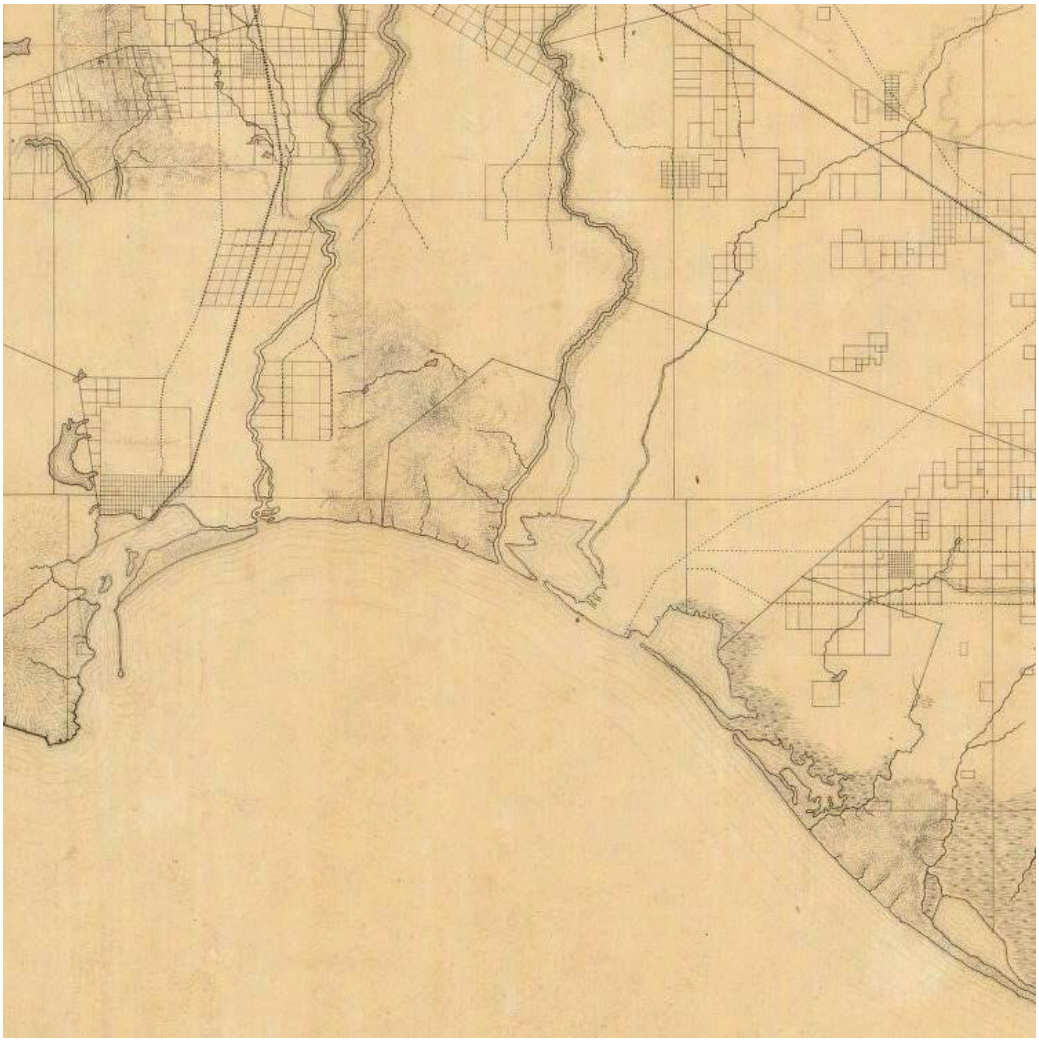

Figure 2. Portion of a circa 1880 drawing by William H. Hall of Los Angeles showing the San Pedro Bay coastline, estuaries, and ocean contours (Hall 1880). The future City of Long Beach is in the center of the drawing.

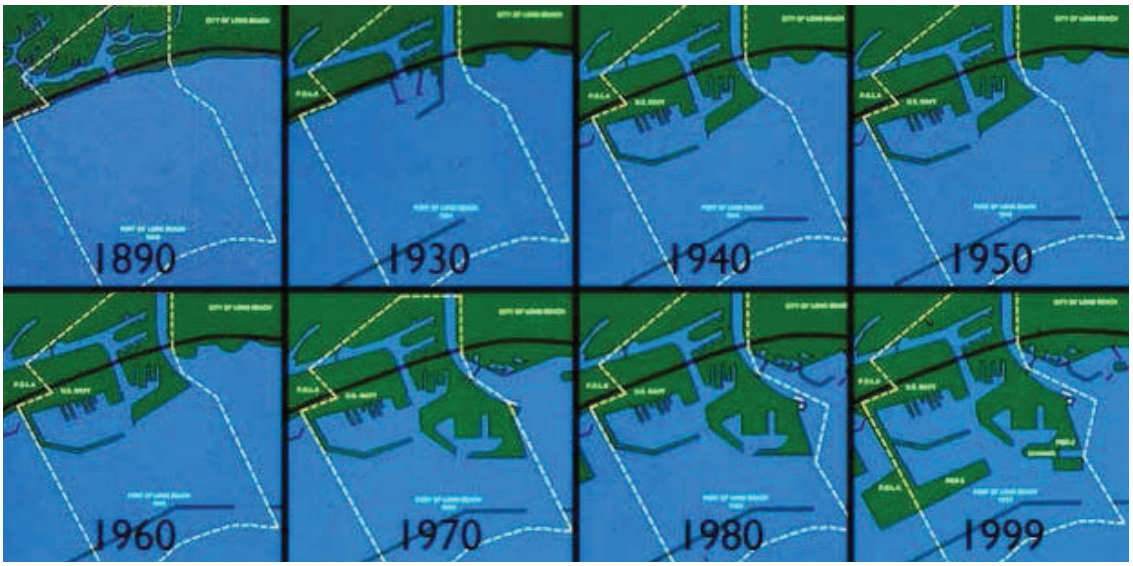

Figure 3. Drawings showing development progression of the Port of Long Beach since 1890 (Port of Long Beach 2014).

~Jon

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Response to Recommendation 1:

As described in detail in the Draft IFR for ESPB, restoration goals for ESPB were developed for six intertidal and subtidal habitat types, in coordination with the Technical Advisory Committee (TAC) members: (1) subtidal rocky reef, (2) kelp forest, (3) eelgrass beds, (4) oyster beds, (5) coastal wetland, and (6) emergent sandy islands. Three (3) alternatives are proposed in the Draft IFR that contain various combinations of these habitat types.

A quantitative habitat model was developed for ESPB in coordination with the TAC members to quantify potential benefits of proposed restoration measures (see Appendix D of the Draft IFR). The model is intended to capture the baseline conditions and predict increases in habitat quality under different future restoration scenarios in a given study area. It should be noted that the model, though generically referred to as habitat evaluation model. During development of this model, soft bottom was considered as one of the targeted habitat types in the model. However, this community type was removed from further development when it was judged by the Project Team (in coordination with the TAC) that soft bottom was an abundant habitat type and not a target of restoration alternatives. It should be noted that the Habitat Evaluation Model does include sandy-bottom habitat that support eelgrass beds. Other soft (muddy) bottom benthic habitats were not considered in the Habitat Evaluation Model for ESPB for a number of technical reasons. The rationale and reasoning behind this are elaborated upon in to Chapters 1, 2 and 4 and Appendix D.1 of the Draft IFR.

The USACE recognizes that restoration of some habitats would result in conversion of others. See Chapter 4.1 of the Draft IFR for key assumptions and considerations. For example, some soft substrate would be lost through restoration efforts focused on the creation of nearshore and open water rocky reefs. The Corps concurs with the FWS that there are ecological trade-offs associated with type-converting one habitat (soft-bottom) to others such as rocky reef, kelp and eelgrass. These have been assessed and described quantitatively and qualitatively in the Draft IFR for the project. For example, there is a quantitative assessment included in Chapter 5 of the Draft IFR in the form of acres and percentages (%) of habitat types lost or gained rather than reflected in habitat units, for reasons outlined below. Qualitative assessment is presented in terms of species use and function of existing and proposed habitat types. Furthermore, Appendix D.1 in the Draft IFR has additional context and rationale on the topic of ecological tradeoffs.

It is recognized that bottom disturbance is a stressor of concern across several habitats, and placement or construction of artificial structures is a potential stressor of concern for soft-bottom and submerged aquatic vegetation, such as eelgrass. However, muddy soft-bottom habitats (with the exception of sandy-bottom eelgrass habitat in nearshore areas), and the water column were not targeted as the goals of this restoration focused on habitat creation and enhancement of scarce habitat types. Muddy soft-bottom is plentiful in the bay. This being said, the USACE fully acknowledges that muddy or sandy soft-bottom habitat is essential for some species and supports valuable ecosystem services.

Response to Recommendation 2:

Breakwater removal is not a component of any of the final array alternatives analyzed in Chapter 5, for the reasons discussed in Chapter 4 of the Draft IFR. Therefore, waste rock from the breakwater is not available for construction of sandy islands or other features. However, during the Preliminary Engineering and Design (PED) phase of the project, any opportunities to utilize excess construction materials most efficiently to the benefit of the project will be explored.

Response to Recommendation 3:

The Corps appreciates the Service's offer to assist in developing ways to effectively highlight the special values of high value habitats/ecological communities. The Corps has appreciated the input of FWS and other agencies as TAC members involved in the development of the study. The study rationale and objectives are described in detail in the report, with the strategy for placement of measures. As a member of the TAC for this project, the FWS has provided valuable feedback on the ecological value of such habitat types as coastal wetlands and sandy islands. Particularly, recommendations on the design features of sandy islands that have been discussed in previous meetings have been useful, as have literature citations on the value of coastal wetlands to threatened and endangered species and responses to information requests on functional aspects of the various habitats and species considerations. We look forward to continuing to work with the resource agencies during the planning and design process.

Furthermore, even though the Corps will extreme care is exercised in the siting of any constructed habitat features, it is possible that constructing rock shoals within the nearshore zone may impact the availability of some other limited inshore habitat or resource, such as eelgrass. The Corps recognizes that soft (or sandy) bottom habitat in nearshore waters of California are spawning areas for market squid (*Loligo opalescens*), which is an important commercial species in California. In addition, sheltered, shallow soft-bottom areas in certain locations (e.g., inside the Los Angeles and Long Beach Harbor breakwaters) provide important nursery areas for several fish species, including California halibut.

During the PED phase of the project, the Corps is committed to working further with the agencies such that limited natural habitats, like existing eelgrass beds, are avoided and/or impacts from project activities are minimized. Because of the inter-and intra-annual variation in the spatial extent of existing eelgrass, the Corps assumes that any analyses and wave modeling will need to be updated to reflect most current conditions so that the placement and construction of nearshore shoals has minimal (if any) impact to existing resources.