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## COASTAL DEVELOPMENT PERMIT APPLICATION

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**Application number** .....3-10-056, Morro Bay State Park Marina Dredging

**Applicant**.....City of Morro Bay

**Project location** .....Morro Bay State Park Marina near 10 State Park Road (just past the Embarcadero), Morro Bay, San Luis Obispo County

**Project description**.....Dredge the marina to restore navigable capacity, and dispose of a portion of the sediment at a nearshore disposal site and a portion of the sediment at an upland disposal site; recover any fallen riprap within the dredge footprint and replace it onto the existing marina revetment, and; install a new vessel pumpout station on an existing floating dock.

**File documents**.....City of Morro Bay Certified Local Coastal Program (LCP); Morro Bay State Park Marina Maintenance Dredging Sampling and Analysis Plan, December 2010; Morro Bay State Park Marina Maintenance Dredging Sampling and Analysis Report, March 2011; Morro Bay State Park Marina Renovation and Enhancement Project Environmental Impact Report (EIR) #2005021104, October 2008; Morro Bay State Park Marina Renovation and Enhancement Project Addendum to the Final EIR, August 2010; The Role of Mud in Regional Productivity and Species Diversity by John Oliver, Moss Landing Marine Laboratories, January 2008; Morro Bay State Park Marina Maintenance Dredging Draft Sediment Management Plan, July 2008; Nearshore Disposal Option Evaluation, Memorandum from Philip Williams & Associates to Padre Associates, Inc., January 23, 2006; Army Corps of Engineers Final Environmental Assessment for the Morro Bay Harbor Six-Year Maintenance Dredging Program, June 2008; Eelgrass Survey Report for the Morro Bay State Park Marina Maintenance Dredging Project, October 5, 2010; Rare Plant and Habitat Update Report for the Morro Bay State Park Marina Maintenance Dredging Project, October 6, 2010; Morro Bay Total Maximum Daily Load for Sediment, April 24, 2002; Project Report: Recommendation to Delist Morro Bay, San Luis Obispo County, California For Metals From the 303(d) List.

**Staff Recommendation** ..Approval with Conditions

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## A. Staff Recommendation

### 1. Summary of Staff Recommendation

The City of Morro Bay proposes to dredge the Morro Bay State Park Marina (Marina) in two phases. Phase I would restore navigability to the entrance channel, and it would include disposing of dredged sediment at a nearshore disposal site south of the entrance to the Morro Bay Harbor. Phase II would restore navigability to the berthing areas, and would require sediment disposal in a suitable upland location. The Phase II sediment must be disposed in an upland location because it contains a high percentage of fines and was determined by the interagency Dredge Materials Management Team (DMMT) to be unsuitable for ocean disposal due to toxicity.<sup>1</sup> The project also includes restacking riprap from within the dredge footprint onto the existing revetment along the northern and eastern edges of the marina, as well as installing a new vessel pumpout station.

The Marina is an existing, lower cost, public access and recreational facility that is severely impaired by sedimentation. Dredging has not occurred in approximately 30 years, and the Marina is not navigable at low tide. However, while the proposed dredging and beach nourishment facilitate high priority uses under the Coastal Act, the project nevertheless raises Coastal Act issues related to the protection of marine resources, coastal water quality, and public recreational access.

The Coastal Act requires that projects involving the dredging or filling of coastal waters provide measures to minimize adverse environmental effects, and that marine resources and the biological productivity of coastal waters be maintained. The project would directly impact wetland habitat (within the confines of the Marina footprint), and has the potential to indirectly impact nearby eelgrass beds. Dredging and beach nourishment operations may also increase suspended particulates and turbidity in the marina, and sediment re-suspension has the potential to reduce dissolved oxygen levels, potentially leading to adverse biologic impacts (such as potentially smothering and scouring benthic habitats, etc.). To protect these resources from adverse impacts, the recommended permit conditions require dredging construction BMPs, wetlands mitigation at a 4:1 ratio, and eelgrass monitoring and mitigation if necessary.

In addition, dredging operations can lead to other water quality related impacts because dredge operations can change a number of water quality-related variables (including dissolved oxygen, pH, salinity, total suspended solids, and turbidity). While changes to these water quality variables would result from the proposed dredge operation, pre-dredge ambient water quality conditions should be reestablished shortly after each dredge episode, and impacts to these water quality variables are expected to be short-term and minor in magnitude and scope. Furthermore, the recommended permit conditions require proper dredge equipment maintenance and water quality monitoring to further address such water quality issues.

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<sup>1</sup> The DMMT is an interagency review team, which includes the Army Corps of Engineers (ACOE), the U.S. EPA, the Regional Water Quality Control Board and the Coastal Commission. The team's main function is to evaluate dredging projects, including sediment quality, for consistency with the Clean Water Act and other applicable regulations.



The Coastal Act requires that dredge material suitable for beach replenishment be used for such purposes. The project would include dredging and nearshore placement of 36,000 cubic yards of sediment for Phase I. Although the sediment has a higher percentage of finer grained materials (“fines”) than has typically been allowed in the past at this location, there is a growing trend towards allowing a higher percentage of fines in the nearshore, due to the benefit of providing materials to the littoral system, including the potential benefit of supplying fines to benthic habitats. These cases of increased fines disposal in the nearshore environment warrant additional scrutiny due to both potential increased toxicity of sediment overall, because chemical contaminants have a tendency to adhere more to fines than to sand, and also because the fate of fines in the nearshore environment is not well understood and depends on site conditions.

In this case, although the Phase I sediment has elevated levels of chromium and nickel, staff recommends that the disposal of the dredged sediment from the first project phase into the nearshore is appropriate because these elevated metals are naturally occurring in the watershed due to underlying geologic conditions, and the disposal site is a high-energy wave environment that should quickly carry sandy material to the beach and fine material offshore. In addition, there is no sensitive marine habitat in the vicinity that is likely to be negatively impacted by the dispersal of these sediments, and the overall quantity of disposal, including the daily disposal volumes, are small in scale when compared to the existing and historic use of the same nearshore site by the U.S. Army Corps of Engineers (ACOE) for annual maintenance dredging of the Morro Bay Harbor. Recent ACOE maintenance dredging of Morro Bay Harbor sediment with similar chemical characteristics as the subject sediment has been in excess of 130,000 cubic yards per year (and the current ACOE Commission authorization is for up to 1.1 million cubic yards per year). Finally, monitoring proposed by the Applicant, and included as a condition of approval, will ensure that future decisions regarding placement of material at this site will be informed by data collected during and after the proposed project.

Overall, and subject to the recommended conditions, the dredge/nourishment program is necessary and appropriate to protect priority uses, is essential to support public access and recreational boating, will avoid adverse environmental impacts to coastal marine resources and water quality, and will protect and enhance public access and recreation. **Therefore, Staff recommends that the Commission approve a CDP with conditions for the proposed dredging and dredge material nourishment project.** The necessary motion is found directly below.

## 2. Staff Recommendation on CDP Application

Staff recommends that the Commission, after public hearing, **approve** the CDP for the proposed development subject to the standard and special conditions below.

**Motion.** I move that the Commission approve coastal development permit number 3-10-056 pursuant to the staff recommendation, and I recommend a yes vote.

**Staff Recommendation of Approval.** Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the



following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**Resolution to Approve a Coastal Development Permit.** The Commission hereby approves the coastal development permit on the ground that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the amended development on the environment.

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## B. Findings and Declarations



The Commission finds and declares as follows:

## 1. Project Setting

### A. Regional Setting

The City of Morro Bay (City) is located on the shores of Morro Bay near the middle of the larger Estero Bay in San Luis Obispo County. The City first became a popular tourist destination in the 1890s and experienced a construction boom during the 1920s, until the market crash of 1929. The Morro Bay State Park property was originally constructed as a country club that opened a few months before the crash of 1929. In 1934, the State took possession of the property for use as a State Park, and the Civilian Conservation Corps constructed new buildings and infrastructure within the park. Until the mid-1940's, most of the small community of Morro Bay was built on the bluff tops above the tidal flats. Between 1942 and 1945, the north and south breakwaters at the entrance to the Morro Bay harbor, two "T"-piers, and the inner harbor bulkhead were constructed for a Navy amphibious base. A navigational channel was dredged and the spoils deposited behind the inner harbor bulkhead to create a fill area along the bay that became known as the Embarcadero. In the late 1940's the Navy base, including all waterfront facilities, was sold to San Luis Obispo County. Buildings began to be constructed on the Embarcadero, and various docks and piers were occupied by a growing fleet of commercial fishing boats.

Today, the City, the State Park, and the Embarcadero are major tourist attractions and prime coastal visitor-serving destinations with an estimated 1.5 million visitors annually. The Embarcadero is now largely developed with a variety of visitor-serving (overnight units, restaurants, gift shops, etc.) and coastal-related land uses (i.e., kayak rental, commercial and recreational fishing services, etc.). The State Park is 1,452 acres and contains a variety of public access and recreation opportunities, including a public golf course, and overnight accommodations, as well as boating facilities and a small restaurant at the marina.

Morro Bay and the surrounding area include a variety of biological habitats, including coastal wetlands, intertidal mud/salt flats, rocky subtidal and intertidal zones, riparian corridors and woodlands. All of these habitats provide highly productive, diverse and dynamic ecosystems. Central to this habitat framework is the Morro Bay Estuary itself. This mostly shallow lagoon is approximately 2,500 acres and is sheltered from the open ocean by the sandspit and constructed breakwater. It is considered the most significant wetland system on California's south central coast. In addition, the Bay serves as a critical link of the Pacific Flyway by providing important habitat for resident and migrating shorebirds and waterfowl.

The Bay is home to a diverse collection of fish and wildlife species, many of which are rare, threatened, endangered, and/or endemic to the bay. For example, the estuary serves as resident and nursery habitat for the federally endangered tidewater goby and the steelhead trout, and other fish and shellfish. Other examples of federally threatened or endangered species that depend on the estuary and its watershed for their survival and recovery include: snowy plover, brown pelican, California black rail, California red-legged frog, Least Bell's vireo, Morro shoulderband snail, Southern sea otter, California clapper rail, Southwestern Willow Flycatcher, and the Morro Bay kangaroo rat. In addition, the bay supports a



diverse and wide range of marine organisms including fish, shellfish, invertebrates, and other taxa (e.g., phytoplankton, zooplankton, jellyfish). It also supports recreational and commercial fisheries, and also provides commercial shellfish harvests.

Morro Bay also includes the largest eelgrass beds in the southern part of the state, with dense stands located in the lower intertidal areas and shallow channels within the Bay. These beds are a complex and highly productive environment, serving as a spawning and nursery ground for many species of fish (e.g. halibut, English sole, topsmelt, shiner perch, speckled sanddab, plainfin midshipmen, arrow and bay goby), and larger invertebrates (e.g., bay shrimp, spiny cockle, nudibranchs, cancer crabs, yellowshore crab). The dense foliage serves a number of functions such as substrate for epiphytic flora, fauna, and microbial organisms that help decontaminate the Bay's water, and as a moderator of current and wave action, allowing suspended sediments and organic particles to settle, thereby improving water quality. Moreover, the eelgrass habitat in Morro Bay is the only significant eelgrass habitat in central and southern California available to the black brant during its annual migration to and from Mexico.

#### B. Project Location and Background

The site of the proposed dredging is at the Morro Bay State Park Marina at the southern end of the City and the southeast side of the bay (See Exhibit A). The marina was first created in 1949 as a recreational facility for small boats and kayaks and is currently operated by the City of Morro Bay. When the marina was first dredged, the spoils were placed on mudflats directly adjacent to the southern and eastern boundaries of the marina, creating an upland peninsula. Although this peninsula was at first unvegetated, it became vegetated over time and now contains special plant communities and wetland habitats. In addition, over time, sedimentation of the bay and the marina caused a shoal to form on the north side of the peninsula, which encroaches into the original open water area of the marina. This sedimentation has reduced the depth of the marina, making navigation at low tide impossible for many of the boats that berth there. Although the Applicant indicates that it was most likely initially dredged to a depth of -8 mean lower low water (MLLW) in 1949, the entrance channel is now approximately -4 MLLW, and the docks and boats in the berthing area are grounded at low tide.

The larger Morro Bay Harbor within which the marina is located has also been subject to fairly severe sedimentation over time. In 1998, Tetra Tech conducted a bathymetry analysis to evaluate sediment in the bay for the Morro Bay National Estuary Program. They found that the Bay consists of extensive mudflats, and that over the past 100 years, the area of the bay covered by water at low tide has decreased 60%, and the volume of water has decreased by approximately 20%.<sup>2</sup>

To address sedimentation in the navigational channels of Morro Bay Harbor, ACOE performs regular maintenance dredging. This dredging occurred approximately every five years from the 1960s through the 1990s. Since 1994, the ACOE has conducted annual dredging, with annual volumes ranging from 114,000 cubic yards to 860,000 cubic yards. In the Commission's most recent Federal Consistency review of this activity, the ACOE was authorized to dredge up to 1.1 million cubic yards annually and dispose of it either at the beach on the north side of Morro Rock, or at a nearshore disposal site

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<sup>2</sup> Regional Water Quality Control Board, Morro Bay Total Maximum Daily Load for Sediment, April 24, 2002; pages 7-9.



approximately 2,000 to 3,500 feet from the shore and 5,000 to 10,000 feet south of the harbor entrance (See Exhibit B). This is the same disposal site as is proposed to be used for the subject dredging project.

The sediment in Morro Bay is known to have high levels of certain metals, including nickel and chromium. Although the Bay was placed on the California 303(d) list for metals in 1996, it was delisted in 2003. The recommendation for delisting that was completed by the Central Coast Regional Water Quality Control Board (RWQCB) explains, in detail, the argument for delisting. RWQCB concluded, based on comprehensive testing and analysis, that the elevated levels of metals in the Bay sediment were naturally occurring and caused by the geological makeup of the watershed. According to their report, Jurassic-Cretaceous Franciscan Formation, which is known to have elevated levels of metals, including nickel and chromium, underlies 80% of the watershed.

The report explains that metals in the sediment were stable until approximately 1770, at which time the metals concentration increased, most likely due to accelerated erosion from land disturbance caused by new settlers' farming and land development. However, after the 1920s, these high metals concentrations leveled off. Elevated metals in Bay sediment are thus natural constituents of this environment and most likely caused by ongoing erosion and sedimentation of the land, and not by mining or other industrial activity, which was most prevalent from 1870 until about 1941. In short, sediments in Morro Bay have elevated background levels for certain heavy metals, including nickel and chromium, because such heavy metals are naturally occurring within the geological profile of the underlying the area.

## 2. Project Description

The City is proposing to dredge the Morro Bay State Park Marina in two phases in order to restore the navigable capacity of the marina. Phase I would be to dredge the entrance channel to a depth of -8 MLLW to allow boats to enter and exit the marina during low tide. The total volume of sediment for this phase would be 36,000 cubic yards from two dredge areas: MB-DU1 and MB-DU2A (See Exhibit C). MB-DU1 is approximately 52% sand and 48% fine grain sediment, and MB-DU2A is approximately 63% sand and 37% fine grain sediment. The dredged material would be collected and placed on a barge and deposited at the nearshore disposal site, which is between 2,000 and 3,500 feet offshore and 5,000 to 10,000 feet south of the entrance channel to Morro Bay, on the ocean side of the Morro Bay sandspit. Because of the small size of the marina, small barges would be utilized, and only 600-700 cubic yards of sediment per day would be disposed in the nearshore. The construction duration of Phase I would be approximately 15 weeks.

Phase II includes dredging the inner harbor to a depth of -8 MLLW to restore access to berthing areas during low tide (see area MB-DU2B on Exhibit C). The total volume of sediment in MB-DU2B is 43,500 cubic yards, and due to the high level of fines as well as toxicity identified during sediment sampling, it would be disposed of at a suitable upland location. The City has identified funding for the Phase I dredging, but not for Phase II dredging, and is therefore asking for a five-year authorization to complete the project.

The project also includes replacing any fallen riprap within the dredge footprint onto the existing (pre-



coastal) riprap revetment located on the north and east boundaries of the marina. Riprap recovery will be incidental to the dredging project, and the project does not including making any attempt to recover riprap outside of the dredge footprint. All riprap would be restacked within the existing revetment footprint.

Finally, the project includes installing a new vessel pumpout station on an existing floating dock. No new floats or gangways would be required for the pumpout, and utilities would be routed through the existing dock infrastructure.

### 3. Coastal Development Permit Determination

The proposed project takes place within the Commission's retained coastal permit jurisdiction. The City has a certified Local Coastal Program (LCP), which can serve as non-binding guidance to the Commission, but the standard of review is the Coastal Act.

#### A. Land Use Priorities

The Morro Bay State Park Marina provides boating facilities for recreational boaters, including slip space for 125 vessels, a kayak rental business and a hand launch ramp for canoes and kayaks. The proposed project includes maintenance dredging to remove accumulated sediment from the boat berthing and launching areas, and navigational channels to restore navigability to the marina. Coastal-dependent and coastal-related developments are among the highest priority Coastal Act uses.

##### 1. Applicable Policies

The Coastal Act defines coastal-dependent and coastal-related as follows:

*§ 30101: "Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.*

*§ 30101.3: "Coastal-related development" means any use that is dependent on a coastal-dependent development or use.*

Coastal Act Section 30001.5 states in part:

*The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:*

- (a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources....*
- (c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.*
- (d) Assure priority for coastal-dependent and coastal-related development over other development on the coast...*





Coastal Act Section 30234 also provides:

*§ 30234: Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.*

Although it is not the standard of review, the LCP contains several policies that also prioritize and maintain the existing use of the marina and require the facility to be maintained. For example, LCP Policies 7.10, 7.11 and 7.12 state:

***Policy 7.10:** The City shall designate the harbor entrance, the harbor area and the navigable ways to and including the [State Park] Midway Marina as harbor and navigable ways land use. The City shall find allowable uses consistent with Section 30233 of the Coastal Act and with wetland preservation policies contained in the LUP. Development shall not cause further degradation of the Morro Bay estuarine and wetland habitat. Midway Marina shall not be expanded beyond its existing boundaries nor shall the amount of open water area within the marina configuration be expanded...*

***Policy 7.11:** The City shall work with the County of San Luis Obispo, the U.S. Army Corps of Engineers, and all other interested agencies in order to insure that the existing channel between the [State Park] Midway Marina and the main channel of Morro Bay is marked and remains open, and is maintained in a condition allowing free passage of recreational boats. The width and depth of the channel shall be as provided in the Harbor Master Plan. The maintenance of the channels shall include mitigation measures to prevent potential damage to benthic organisms including mollusks and eelgrass beds.*

***Policy 7.12:** As a condition of approval of any permit for development within the [State Park] Midway Marina, the City shall require that the State Department of Parks and Recreation include the Midway Marina in its Morro Bay State Park Master Plan. The Marina shall be designated for coastal-dependent and coastal-related uses limited to recreational boat dockage and support services.*

## 2. Analysis and Conclusion

The Morro Bay State Park Marina provides important public recreational boating facilities along a stretch of coast where few such facilities are available. Morro Bay is the only fully-protected harbor between Santa Barbara and Monterey, both of which are approximately 120 miles away, by boat. Slips for recreational boats are in high demand in Morro Bay and the waiting list for slips in the marina ranges from five to 30 years, depending on the size of the slip. In addition, Morro Bay Harbor, which was designated as a “Harbor of Safe Refuge” by the state legislature in 2000, is an important harbor along this stretch of coast because much of the nearby coast is subject to dangerous ocean conditions. The proposed dredging activities not only support coastal-dependent and related uses, but also are integral to such uses and therefore have a priority under the Coastal Act. Accordingly, the proposed development



supports high priority Coastal Act uses that are consistent with the land use priorities of Coastal Act Sections 30101, 30101.3, and 30001.5.

Section 30234 of the Coastal Act provides that facilities serving recreational boating industries shall be protected and, where feasible, upgraded. Recreational boating is a coastal-dependent priority use that cannot function at the Morro Bay State Park Marina without sufficient harbor depths. Hence, the maintenance of adequate berthing and navigational depths in the marina is essential, and is considered a high priority under the Coastal Act. Therefore, the Commission finds that the project is consistent with Coastal Act Section 30234.

In addition, the LCP provides guidance related to appropriate land uses in the marina, requiring public recreational access at the marina to be maintained and prohibiting future expansion of the open water area of the marina. The proposed project would restore navigable capacity to the marina, which is necessary for continued recreational use, and it would not expand the marina or its open water area. Therefore, it is consistent with the above-mentioned LCP policies protecting the use at this location.

However, it is the Commission's understanding that some residential use of recreational boat slip space occurs in Morro Bay, and potentially in the marina. Any residential use of this marina would be contrary to Coastal Act and LCP requirements requiring that the use of this open water and waterfront site be limited to coastal-dependent, public access and recreational purposes, including with respect to the dredge areas identified. Therefore, and to ensure consistency with the Coastal Act and LCP, Special Condition 1 prohibits residential use within the marina. As conditioned, the proposed project is consistent with the priority land use requirements of the Coastal Act and certified LCP.

## B. Marine Resources

### 1. Applicable Policies

Coastal Act Sections 30230, 30231, 30232, and 30233 afford protection of marine resources and their associated biological productivity and state:

*§ 30230: Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

*§ 30231: The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*



*§ 30232: Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

*§ 30233: (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (6) Restoration purposes.*
- (7) Nature study, aquaculture, or similar resource dependent activities.*

*(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.*

*(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.*

Finally, LCP policies 7.10 and 7.11, stated above, which provide non-binding guidance for the review of this project, protect the biological resources of the Bay at this location, specifically prohibiting development at this marina from further degrading the estuarine and wetland habitat,



and requiring dredging to include mitigation measures to prevent adverse impacts to benthic habitats and eelgrass beds.

## 2. Analysis

### Biological Resources

The Marina is located in and adjacent to the significant biological resources of Morro Bay, described above. Directly south and east of the site, the upland peninsula, created by the disposal of spoils when the marina was first created in 1949, now supports central dune scrub and southern willow scrub communities. The edges of the peninsula also support northern coastal salt marsh, a sandy beach area, and mudflats. There are also eelgrass beds in the vicinity of the marina entrance channel (see Exhibit D). Eelgrass (*Zostera marina*) is a marine plant that grows in clear, well-lit, shallow coastal waters and provides shelter and spawning habitat for fish and invertebrates. It is widely recognized as one of the most productive and valuable habitats in shallow marine environments. The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act set forth Essential Fish Habitat provisions to identify and protect important habitats of federally managed marine and anadromous fish species. Eelgrass beds are considered a Special Aquatic Site by the ACOE, California Department of Fish and Game (CDFG), United States Fish and Wildlife Service (USFWS), and NOAA Fisheries. Eelgrass habitat is regulated under Section 404 of the Clean Water Act and is considered Essential Fish Habitat by NOAA Fisheries.

The project would eliminate 0.3 acres of mudflats, 0.06 acres of wet sandy beach, and 0.02 acres of northern coastal salt marsh (0.38 acres total; all considered types of wetlands, as defined under Section 30121 of the Coastal Act, for this analysis) from the shoaled area at the mouth of the marina. In addition, although the project has been designed to avoid direct impacts to eelgrass, indirect impacts are possible. The project can only be found consistent with the Coastal Act policies protecting marine resources if these resource impacts are appropriately addressed, including through the 3-part test of Section 30233(a) of the Coastal Act (i.e., the allowable use, alternative, and mitigation tests).

Under the first test, the project is an allowable use for dredging under Section 30233(a)(2) because it is for the purpose of maintaining existing berthing and launching opportunities and restoring previously dredged navigational area depths (and Special Condition 1 ensures this to be the case by prohibiting residential use of the marina). Existing sedimentation has severely impaired the functionality of the marina and continued sediment inflows will continue to degrade the condition of the marina further, potentially resulting in closing the marina, if action is not taken to restore its navigable capacity.

The second test under Section 30233(a) includes an analysis of available alternatives such as the no project alternative, or reducing/relocating the proposed dredging and related activities. The City has completed an alternatives analysis for the project evaluating: (1) replacing the marina slips with new slips added to existing facilities in Morro Bay; (2) replacing the marina with a newly constructed marina, and; (3) replacing the in-water slip spaces with dry boat storage. These alternatives were rejected because they would result in similar or greater impacts to marine resources and because their cost makes them infeasible. In addition, the no project alternative is infeasible because it would not



protect or upgrade facilities used by recreational boaters as required by Coastal Act Section 30234. Similarly, a reduced or relocated project would not adequately maintain existing boating facilities that are in high demand in Morro Bay, or enhance their usability by the public and would interfere with the objectives framed by Section 30234. Further, the existing project has been reduced significantly from the City's original 2008 proposal to dredge 147,000 cubic yards of sediment down to the currently proposed 79,500 cubic yards, wetland impacts have been reduced, and direct impacts to eelgrass beds have been completely avoided.<sup>3</sup> Therefore, the proposed project, as conditioned by this permit, is considered the least environmentally damaging alternative available. As discussed below, mitigation measures to avoid and reduce adverse impacts on coastal resources are both proposed as a component of the project and required as conditions of project approval.

Although the proposed project is the least environmentally damaging alternative, its adverse impacts must be mitigated, as required by Section 30233(a). The proposed project would result in the loss of 0.38 acres of wetlands. Of this area, .02 acres is comprised of northern coastal salt marsh, a valuable habitat type in this ecosystem. The Applicant is proposing to mitigate this loss through a wetlands mitigation project in the vicinity of the project site at a 4:1 mitigation ratio. State Parks (the landowner) has agreed to coordinate with the City on locating an appropriate site and developing a mitigation plan. Special Condition 2 makes this proposal a requirement of the permit, and requires the wetlands mitigation plan to be submitted for review and approval of the Executive Director prior to issuance of the CDP. As proposed and conditioned, the impacts to northern coastal salt marsh can be mitigated consistent with 30233(a).

The Commission's senior ecologist, Dr. John Dixon, reviewed the project impacts to the mudflat (0.3 acres) and wet sandy beach (0.06 acres) wetland habitat types (the remaining 0.36 acres) and determined that this portion of the project is self-mitigating, for two main reasons. First, these wetland features are shoaled areas within the Marina proper, in a man-made depression originally formed when the marina was created in 1949, and have been formed from sediment flow to the bay from upland, primarily anthropogenic, sources. The area is in active use as a marina, and thus these features do not represent a protected or particularly sensitive subset of habitat in Morro Bay. Although they still qualify as wetlands, their value to the ecosystem is reduced as a result compared to naturally occurring and more protected wetland areas.

Second, there is evidence of increased sedimentation leading to increased mudflat/wet sandy area in the Bay, including from the RWQCB report for Morro Bay, as described above. Such sedimentation has clearly been occurring at the project site, as is documented in Exhibit E, which shows increased sedimentation at the marina between 1937 and 2005. As a general rule, such sedimentation has led to an increase in mudflats/wet sandy areas within the Bay at the expense of more biologically diverse subtidal

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<sup>3</sup> In 2008, the City completed an EIR for a proposed a project to upgrade the marina, including dredging, replacing the docks, installing new shoreline protection, upgrading the parking lot and providing public restrooms and shower facilities. However, due to limited funding, the original project proposal has been reduced significantly, so that now it includes only the subject dredging project to restore navigability (as well as a project to replace the existing kayak launch ramp for which the Commission waived permitting requirements in 2010 (CDP waiver 3-10-051-W)).



habitats. The 0.36 acres to be removed will actually be a conversion of habitat types from intertidal habitat, which is less valued in this ecosystem, to subtidal habitat, which is more valued. Further, the relatively shallow dredge depth of -8 MLLW will create an environment suited to vegetation by nearby eelgrass beds, increasing the value of the new subtidal habitat to this estuary ecosystem. Therefore, as proposed and conditioned, the project includes mitigation measures that minimize and mitigate wetlands impacts consistent with the marine resource protection policies of the Coastal Act and the LCP.

Even though the project would avoid direct impacts to eelgrass, indirect impacts are possible because dredging activities may increase turbidity in the project area. In addition, because the location of eelgrass beds is frequently shifting, and the eelgrass beds are in very close proximity to the dredge footprint, there is a potential for unintentional direct disturbance to the eelgrass. As discussed above, eelgrass plays an important role in this ecosystem and must be protected under sections 30230 and 30231 of the Coastal Act. Special Condition 3 requires revised final dredge plans that would show the final dredge footprint in relation to the eelgrass to ensure the dredge area would not encroach into an area of eelgrass. In addition, Special Condition 4 requires eelgrass monitoring, and requires that if any impacts to eelgrass occur, they must be mitigated appropriately. In the Morro Bay area, the Commission has typically relied on NOAA Fisheries Southern California Eelgrass Mitigation Policy standards in this respect, including proportionally offsetting impacts on at least a 1.2:1 ratio as identified in that Policy. Thus, the special conditions require the Applicants to first avoid eelgrass areas, and second to offset any reduction in eelgrass that is identified by project monitoring, including through application of the 1.2:1 mitigation ratio. As conditioned, impacts to eelgrass would be minimized and mitigated, as required by the Coastal Act and LCP policies protecting marine resources.

#### Dredging and Dredge Spoils Disposal

As discussed above, Section 30233(a) of the Coastal Act requires the proposed project to mitigate adverse environmental impacts to the maximum extent feasible. In addition, under Section 30233(b), the project must also provide for dredge spoils that are suitable for beach replenishment to be transported for such purposes to appropriate beaches or into suitable long shore current systems. Section 30233(b) also requires that dredge spoils be disposed of in a manner that avoids significant disruption to habitats and water circulation.

To be suitable for beach replenishment, sediment must not have unacceptable pollutant concentrations (i.e., they must be “clean” sediments),<sup>4</sup> and sediment must contain an acceptable composition of grain size. Historically, the commonly identified acceptable sediment grain size for nourishment purposes was considered sediment that was composed of at least 80% sand (and no more than 20% finer grained materials; also referred to as fines or mud), or sand composition within 10% of the composition of the sediment at the disposal site.<sup>5</sup> In the past, the Commission and EPA both utilized this rule of thumb when evaluating dredging projects. However, the EPA indicates that Clean Water Act guidelines are

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<sup>4</sup> The Commission has generally relied on EPA, ACOE, and RWQCB through their application of Clean Water Act requirements to help determine when sediments should be considered clean and thus suitable for nourishment and nearshore disposal.

<sup>5</sup> So, for example, dredged sediment containing 70% sand would be suitable at a disposal site with a composition of 60% sand, but it would not be acceptable at a location with 100% sand.



flexible and can allow for discharge of finer material for beach nourishment purposes, provided that site-specific information is available to determine any beach nourishment benefits or significant adverse impacts. In addition, recent studies have shown that an increased percentage of fine-grained material, when placed in appropriate volumes and at appropriate nearshore locations, do not cause adverse impacts to marine resources, and in fact, may benefit benthic habitats.<sup>6</sup> In this case, the EPA indicates that the sand/fine ratio and proposed nearshore nourishment program is appropriate.

The Commission has approved the disposal of clean sediment composed of more than 20% fines into the nearshore environment for at least two other harbors. The first is the Santa Cruz Harbor, where the Commission has approved a series of nearshore disposal projects, beginning in 2001. There have been four projects to date, which disposed of approximately 25,000 cubic yards of sediment (composed of up to 69% fines) through a pipeline into the nearshore environment.<sup>7</sup> To evaluate the environmental effects of placing this clean, fine-grain dredge material into the nearshore littoral zone, extensive monitoring programs were conducted before, during, and after each of the projects to ascertain if any finer-grain dredge sediment could be detected on the beaches or the nearshore benthic environment. The results of the data collected during the monitoring programs concluded that the demonstration projects did not significantly change, alter, or impact the beaches or nearshore marine benthic habitats in the study areas. The Commission also approved a dredging project in the Tijuana Estuary in Imperial Beach, San Diego County, that included disposing 60,000 cubic yards of sediment comprised of 50% fines and 50% sand directly in the surf zone on the beach, between the high and low tide lines, in three increments as a four-month experiment in using siltier sands for beach replenishment.<sup>8</sup>

One reason for the success of the Santa Cruz demonstration projects is that the sediment was placed in a high-energy ocean environment, where sediment was easily dispersed by wave energy. This experience showed that when placed in a high-energy wave environment, sand tends to move onshore to the beach and fine sediment is carried offshore by ocean currents. In the case of Morro Bay, the disposal site is known to be a very high-energy wave environment. In 2006, the City contracted with a consultant for an analysis of the suitability of the ACOE nearshore disposal site for placement of sediment from this project.<sup>9</sup> This 2006 analysis concludes that the subject nearshore disposal site is located in a high-energy wave environment based on a variety of evidence, including a review of published literature describing the wave climate and littoral transport at the site and in the region, the results of ACOE monitoring of the use of this disposal site, and the results of the Santa Cruz Harbor demonstration project described above. Based on existing literature, the analysis concludes that the disposal site is exposed to high wave action and would therefore disperse sand and sediment quickly up and down coast. In 1990, ACOE deposited 370,000 cubic yards of dredged material at this location (more than 10

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<sup>6</sup> See *The Role of Mud in Regional Productivity and Species Diversity* by John Oliver, Moss Landing Marine Laboratories, January 2008.

<sup>7</sup> See CDPs 3-00-034-A1; 3-00-034-A2; 3-05-026, and; 3-05-065-A3.

<sup>8</sup> See CDP 6-08-048.

<sup>9</sup> Nearshore Disposal Option Evaluation, Memorandum from Philip Williams & Associates to Padre Associates, Inc., January 23, 2006.



times the amount that would be deposited with this project) and monitored the sediment dispersal.<sup>10</sup> ACOE monitoring indicated that the maximum height of material at the disposal site was 10 feet above normal conditions, and over a period of four months, that height was reduced to five feet, showing the dispersal effect of this high-energy environment.

The 2006 analysis also documents the success of the Santa Cruz demonstration projects, described above, in showing that the fines in that project were dispersed by wave energy without negative impacts on the beach or nearshore benthic environments. In addition, it states that the Santa Cruz project “was conducted in mostly calm conditions and is probably not representative of high energy wave and erosion events or characteristic wave conditions with shorter periods during the summer that exist in Estero Bay.”<sup>11</sup> This suggests that sediment disposed of at the subject project site has a higher likelihood of dispersing quickly than the sediment disposed of in the Santa Cruz demonstration project. In its conclusion, the analysis states:

*The nearshore disposal area, located south of the entrance to Morro Bay, can be characterized as a high energy wave environment that is fully exposed to the predominant offshore wave direction... Since the disposal area is within the depths of -20 and -40 feet MLLW, it is most likely outside the surf zone and affected by both cross-shore and longshore transport current processes that are representative of wave and current patterns seaward of wave breaking... Sediment that is placed in the nearshore disposal area will most likely move in all directions; onshore, offshore and parallel to the shoreline. Available information indicates that fine sediments will move differently than sands when deposited in the vicinity of the nearshore. Generally, fine sediments will tend to move offshore while, depending on grain size and wave conditions, sands will move alongshore and cross-shore in both directions. If disposed of in the nearshore area disposal site, fine sediments will likely be re-suspended by waves and or currents and then transported by currents.”<sup>12</sup>*

In short, the nearshore disposal site proposed to be used for the subject project is in a high-energy wave environment where sandy sediment is expected to be transported onshore and fines to be dispersed and carried offshore.

There are no known sensitive nearshore habitats in the vicinity of the disposal site. The disposal site itself, and the surrounding nearshore environment at depths less than 60 feet MLLW are composed of fine-grained, poorly graded sand and fine sediments and do not contain rocky reefs or other sensitive habitat, such as kelp or seagrass beds. Kelp surveys performed by ACOE to evaluate the impacts of their maintenance dredging identified kelp beds near Morro Rock, in the northwest part of Morro Bay Harbor. These kelp beds are unlikely to be impacted by the proposed sediment disposal because they are far enough away that even if sediment were to reach them, it would already be dispersed in low

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<sup>10</sup> It should be noted that past ACOE dredge sediment from the Morro Bay Harbor have consisted of at least 90% sand, and because sand is heavier than fines, it requires more wave energy to disperse than fines would.

<sup>11</sup> Id (Philip Williams & Associates (PWA) 2006); page 7.

<sup>12</sup> Id (PWA 2006); page 7.





concentrations. In addition, ACOE use of the disposal site for maintenance dredging is based in part on the fact that sediment disposed there does not immediately re-enter the harbor. This suggests that sediment is carried away from the harbor and these kelp beds. CDFG also has kelp survey information, which identified kelp beds 4.3 miles from the disposal site. Again, sediment impacts are not expected across such large distances. Finally, CDFG evaluated nearshore habitats in its review of the new Marine Protected Area in Estero Bay. The results of their evaluation show that there is no sensitive nearshore habitat in the vicinity of the disposal site (See Exhibit F). The lack of sensitive nearshore resources reduces the potential for adverse impacts on the marine environment from disposing fine-grained material at this location.

To be considered suitable for beach nourishment, sediment must also be free of chemical contamination. The grain size composition of the sediment is also related to toxicity because chemical contaminants have a tendency to adhere to finer sediment, but not to sandy sediment. Therefore, it is appropriate to give more scrutiny to sediment with a higher percentage of fines in it because it has the potential to have higher concentrations of contaminants. Typically, with ongoing dredging projects, the Commission acts on its CDP prior to the sediment chemical testing that is required to determine suitability for ocean and beach disposal consistent with the Clean Water Act. In these cases, the Commission has included a special condition of approval requiring ACOE and RWQCB approval of the sediment for nearshore disposal, prior to the disposal, or, if sediment is not suitable for ocean disposal, requiring sediment to be disposed in a suitable upland location.

In this case, the Applicant has already performed the required sediment testing. This testing divided the proposed dredge area into two units: DU-1 and DU-2 (see Exhibit C). Several samples were taken from each unit, and then combined so that each unit has a composite sample. The samples were tested for grain size distribution, chemical contaminants and biological toxicity. The results of the sediment testing show that DU-1 is composed of 52% sand and 48% fines, and that although there are slightly elevated levels of chromium and moderately elevated levels of nickel, the sediment did not show toxicity in the bioassay tests. DU-2 is made up of 30% sand and 70% fines and has slightly elevated levels of chromium and copper and moderately elevated levels of nickel. The biological testing on DU-2 indicated toxicity towards organisms. To address this toxicity, the Applicant divided DU-2 into two subunits, DU-2A and DU-2B, where DU-2A consists of a larger percentage of coarse-grained (i.e., sandier) material. The DU-2A sub-unit contains twice as much sand (63% sand) as the DU-2 area overall (30% sand). As a result, the DMMT agencies (i.e., EPA, ACOE, and RWQCB in this case) determined DU-2A is suitable for nearshore disposal without additional toxicity testing. This determination was based on a series of factors unique to this particular case. First, chemical contaminants generally adhere to finer-grained sediment but not to sand, so a sandier composition means that the sediment is generally cleaner overall. DU-2A contains more than double the percentage of sand as the DU-2 composite. Second, the watershed has naturally occurring elevated metals that match the elevated metals of this sediment. Third, the sediment would be disposed in a high-energy environment where clean sand would be carried to the beach and fines would be quickly dispersed by ocean currents into an offshore area where there are no nearby sensitive marine resources. And fourth, the quantity of sediment is relatively small and would be disposed of in small quantities each day, facilitating dispersal of fines and reducing any potential overall impacts, especially when compared to



the heavy use of this site by ACOE, which deposits three times as much sediment at this location annually.

The Commission's water quality staff has reviewed the sediment analysis report carefully and concurs with the DMMT determination that this sediment is suitable for nearshore disposal, in this case. It is important to note that because the elevated metals are naturally occurring in the watershed, similar sediment is being carried to the ocean by streams and rivers. Sedimentation from rivers occurs episodically, not unlike dredging, most commonly during strong winter storms. Therefore, it is reasonable to assume that the marine ecosystem is adapted to having similar inflows of sediment with elevated metals. In addition, as discussed in the land use findings above and the public access findings below, this project is to maintain an existing, public, low-cost recreational boating facility, and therefore, although impacts must be mitigated, the use must also be protected and prioritized under the Coastal Act.

Although the Phase I sediment is suitable for nearshore disposal for the reasons discussed above, the project does include nearshore disposal of sediment with a higher percentage of fine-grained material than has been previously approved at this location. Although the high-energy environment at this location is expected to carry sandy material to the shore and finer material offshore, the ocean environment is constantly changing and there is a potential for fine-grained material to end up on the beach, or for sediment to collect in one area. To address these concerns, the Applicant is proposing comprehensive monitoring of the disposal process, including sediment sampling at the beach to document any changes in grain size distribution, bathymetry surveys to verify that sediment is dispersing as expected, and water quality monitoring, including observations of any turbidity plumes, debris, or changes to the beach including changes in slope, color and odor. This monitoring has been incorporated into Special Condition 7, and is required to be periodically submitted to the Commission. In addition to this proposed monitoring, Special Condition 7 requires the Applicant to monitor the offshore environment to verify that the fines disperse as expected and do not result in unforeseen impacts. Although no such impacts are expected, as described above, such monitoring will help to increase the body of knowledge associated with dredge disposal at this location, which will in turn help the Commission and Morro Bay Harbor managers better understand the most appropriate way of managing dredge disposal and nourishment here in future applications, including with respect to ACOE and their much larger disposal efforts.

Finally, with respect to Phase II dredging (i.e., 43,500 cubic yards from DU-2B), such materials are not suitable and not proposed for nourishment or ocean disposal (due to higher levels fines as well as toxicity), and instead will be dredged and taken to an appropriate upland disposal location. The Applicant has expressed interest in the potential for reusing the Phase II sediment as fill for a future construction project within the coastal zone. However, although such disposal may potentially be appropriate and consistent with Coastal Act requirements, it cannot be authorized at this time because the impacts of its use in a future unknown project cannot be evaluated. Therefore, Special Condition 3(e) requires the sediment to be disposed of at a suitable inland location, such as a landfill, outside of the coastal zone. If the potential for reuse of the sediment within the coastal zone becomes a reality, the Applicant must apply for an amendment to this CDP. In addition, in order to ensure that adequate and



effective mitigation measures to protect coastal resources are provided during the future dredging of this inner harbor area, dredging operations plans are required before Phase II dredging takes place (see Special Condition 3), and the effective timeframe of the permit is limited to a five-year period, as proposed by the Applicant, or until the ACOE dredging permit expires, whichever comes first (see Special Condition 6). With respect to the latter, the areas subject to dredge operations are dynamic environments that are and will continue to be subject to a variety of natural and man-made processes. There are a myriad of potential future changed circumstances that may affect the adequacy of the currently proposed measures (including potential future listing of species that occur within harbor areas; new dredging technologies; beach use patterns; continued erosion and sea level rise; etc.). Thus, in order to enable the implementation of this permit in a manner which best addresses potential future changed circumstances, the Commission finds that, only as conditioned by Special Condition 6, which limits this permit to a period of five years or until the ACOE dredging permit expires (whichever comes first), can the project be found consistent with the resource protection policies of the Coastal Act.

#### Water Quality

Potential impacts of dredging on marine water quality include temporarily increased turbidity, reductions in dissolved oxygen, and potential re-suspension, remobilization, and redistribution of any chemical contaminants present in the sediments. While these impacts could occur, the pre-dredge operation ambient water quality condition is expected to recur shortly after each dredging episode in this case, and thus the impact to these water quality variables is expected to be adverse but short-term and minor in magnitude and scope. However, due to sensitive marine resources in the vicinity of the project site, even though significant water quality impacts are not expected, Special Condition 3(b) requires the Applicant to submit a water quality management plan that includes best management practices (BMPs) and a monitoring program for review and approval by the Executive Director, to ensure water quality is protected as required by the Coastal Act. This condition, at a minimum, requires the Applicant to install turbidity controls and to monitor turbidity, dissolved oxygen, and biological responses, such as fish kills, at the dredge site during dredging operations. The condition also requires the Applicant to notify the Commission if significant water quality impacts are identified and to employ adaptive management measures developed in conjunction with the DMMT to avoid or reduce water quality impacts if they occur. This monitoring requirement will also be required through the ACOE dredging permit, and therefore, although such monitoring is a significant undertaking for the Applicant, it is appropriate in this case. As conditioned, the project conforms to the water quality protection policies of the Coastal Act and the LCP.

As described above, the Phase I sediment has already been tested and determined by the DMMT and Commission water quality staff to be suitable for nearshore disposal. Placement of this material in the high-energy wave environment of this nearshore disposal location will ensure sediment is dispersed quickly, minimizing potential impacts to benthic habitats or other marine resources. In addition, Special Condition 5 requires the permittee to show evidence of other regulatory agency approvals from the ACOE, EPA, and RWQCB, or show that none is necessary.

Finally, the project also includes installing a new vessel pumpout where no pumpout currently exists,



which is a significant benefit to water quality in the marina. However, pumpout stations must be maintained over time to ensure they do not create water quality impacts. In addition, because this is a marina rehabilitation project, it is appropriate to ensure the marina is following proper marina BMPs to protect water quality. Therefore, Special Condition 8 requires a water quality management plan to develop measures to ensure use the vessel pumpout station does not result in adverse water quality impacts. In addition, Special Condition 9 requires the applicant to implement marina water quality BMPs.

### 3. Conclusion

The proposed project represents a dredging project necessary to maintain navigation channels and berthing areas for recreational boating. Because there are no known feasible less environmentally damaging alternatives available to maintain adequate depths within the Marina; because feasible mitigation measures are applied through the special conditions of this approval to avoid adverse environmental effects, and to minimize and mitigate unavoidable impacts; because suitable sediments will be conveyed to appropriate beach replenishment sites; and because the project will include monitoring and reporting to increase the body of knowledge available to assist decision makers for Morro Bay Harbor and other harbors statewide, the proposed dredging project, as conditioned, is consistent with the Coastal Act's marine resource protection policies and the relevant LCP policies, as discussed in this finding.

## C. Public Access and Recreation

### 1. Applicable Policies

Coastal Act Sections 30210 through 30224 specifically protect public access and recreational opportunities. In particular:

*§ 30210: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

*§ 30211: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

*§ 30212 (a): Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects....*

*§ 30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*

*§ 30220. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*



*§ 30221. Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

*§ 30222.5. Oceanfront land that is suitable for coastal dependent aquaculture shall be protected for that use, and proposals for aquaculture facilities located on those sites shall be given priority, except over other coastal dependent developments or uses.*

*§ 30223. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

*§ 30224. Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.*

Finally, LCP policy 7.11, which, as discussed above, provides non-binding guidance for the review of this project, requires the State Park Marina channels to be maintained in a condition allowing free passage of recreational boats.

## 2. Analysis

The Coastal Act requires public recreational access opportunities to be maximized, including lower cost visitor facilities and water-oriented activities (like recreational boating), and protects areas near and at the shoreline for this purpose. The marina provides public access and recreational opportunities of regional significance. These include boat launching and berthing for recreational boats and kayaks in an important harbor where berthing space is extremely limited. The proposed dredging project will strongly benefit public access and recreation, three ways: (1) by restoring and maintaining adequate water depths in the marina's navigation channels and berthing areas; (2) by directing suitable sandy dredge spoils in the nearshore environment for beach replenishment, and; (3) by providing a needed sewage pumpout facility. The new pumpout station is a public recreational access enhancement, and is consistent with the Coastal Act.

Adverse impacts to public access from dredge operations are generally possible. However, the design of this project avoids significant public access impacts because it would use barges to transport and dispose of sediment, as opposed to using pipelines that could potentially extend across beaches or other public access areas, and construction staging areas would be minimized and would not occupy any existing parking spaces. In addition, sediment disposal would be at a nearshore location, adjacent to a beach on the Morro Bay sandspit, which is very difficult to access and infrequently used. Disposal in the nearshore, as opposed to the beach, minimizes impacts to beach grain size. Finally, as discussed above, studies show this is a high energy environment where sand would be carried to the shore and fines would be carried offshore, reducing the potential for fine sediments to impact the beach. Special



Condition 7 further protects public access by requiring monitoring of grain size distribution on the beach to ensure that it continues to function as a sandy beach. This monitoring will also benefit future projects because it will help to provide data relative to sand distribution in the nearshore system associated with sediments that have a higher percentages of fines.

### 3. Conclusion

In conclusion, the dredge program is necessary to protect Coastal Act priority uses. Although the transport of dredge materials to beach replenishment sites may temporarily impact public access to the marina, such impacts can be addressed through conditions of approval and the dredge program is essential to allow for recreational boating access, and the nourishment efforts should serve to build beaches in the area.

The project, as conditioned, will protect boating and other public recreational opportunities consistent with the Coastal Act. Therefore, as designed, the proposed project will preserve public access and recreational opportunities and, as such, is consistent with the above-cited public access and recreational policies of the Coastal Act.

### D. Other

Finally, Coastal Act Section 30620(c)(1) authorizes the Commission to require Applicants to reimburse the Commission for expenses incurred in processing CDP applications.<sup>13</sup> Thus, the Commission is authorized to require reimbursement for expenses incurred in defending its action on the pending CDP application in the event that the Commission's action is challenged by a party other than the Applicant. Therefore, consistent with Section 30620(c), the Commission imposes Special Condition 10 requiring reimbursement for any costs and attorneys fees that the Commission incurs in connection with the defense of any action brought by a party other than the Applicant challenging the approval or issuance of this permit.

## 4. Coastal Development Permit Conditions of Approval

### A. Standard Conditions

- 1. Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

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<sup>13</sup> See also California Code of Regulations Title 14 Section 13055(g).



3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

#### B. Special Conditions

1. **Boat Slip Parameters.** All Morro Bay State Park Marina boat slips shall be used for commercial and recreational fishing vessels, commercial and recreational passenger vessels, or commercial service vessels only. The use of the docks and slips for private residential use is prohibited.
2. **Wetlands Mitigation Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the Permittee shall submit two copies of a Wetlands Mitigation Plan for review and written approval of the Executive Director. The Plan shall provide for the creation of at least 0.08 acres of northern coastal salt marsh. The goal of the Plan shall be creating 0.08 acres of self-sustaining natural northern coastal salt marsh. The Plan shall be prepared by a qualified restoration ecologist, and shall take into account the specific condition of the site (including soil, exposure, water flows, temperature, moisture, wind, etc.) and Plan goals. At a minimum, the Plan shall provide for the following:
  - a. **Baseline.** A baseline assessment, including photographs, of the current physical and ecological condition of the northern coastal salt marsh creation area.
  - b. **Success Criteria.** A description of the goals and measurable success criteria of the Plan, including, at a minimum, the requirement that success be determined after a period of at least three years wherein the site has been subject to no remediation or maintenance activities, and that this condition be maintained in perpetuity.
  - c. **Native Species.** Planting of native species of local stock appropriate to northern coastal salt marsh habitat, and removal of invasive and non-native plant species within the habitat creation area.
  - d. **Monitoring and Maintenance.** Monitoring and maintenance provisions including a schedule of the proposed monitoring and maintenance activities to ensure that success criteria are achieved.
  - e. **Landowner Authorization.** Written evidence that the habitat creation area landowner has authorized habitat creation efforts under the Plan, including any subsequent remediation efforts.
  - f. **Annual Reports.** Provision for submission of annual reports of monitoring results to the Executive Director, beginning the first year after completion of the initial creation efforts and concluding once success criteria have been achieved. Each report shall document the condition



of the site area, including with photographs taken from the same fixed points in the same directions, shall describe the progress towards reaching the success criteria of the plan, and shall make recommendations, if any, on changes necessary to achieve success.

The Permittee shall undertake mitigation in accordance with the approved Wetlands Mitigation Plan.

- 3. Dredge Operations Plan.** PRIOR TO THE COMMENCEMENT OF EACH DREDGING EPISODE, the Permittee shall submit two copies of a detailed dredge operations plan (DOP) that is in substantial conformance with the Conceptual Dredge Plan attached to the Memorandum dated April 28, 2011 from Jack Malone, Anchor QEA, to John Markham, ACOE, for Executive Director review and written approval. The DOP must clearly identify all dredge operations (including, at a minimum, identification of areas to be dredged, dredging depths, over-dredge depths, quantity of materials to be dredged, specific location of dredge spoils disposal, all methods for spreading/grooming beach nourishment areas, all timing (including dredge start and stop days, hours of operations, etc.), all measures to be taken to define and delineate dredge activity areas, equipment to be used, staging areas, etc.). The DOP shall, at a minimum, incorporate the following provisions:
- a. Dredge Prohibition Areas.** Dredging operations shall not occur in eelgrass beds. Prior to the commencement of dredging activities, all areas to be avoided shall be clearly demarcated with floatable buoys, or other devices which are clearly visible on surface waters, so as to allow dredge equipment operators to easily identify dredge prohibition areas.
  - b. Water Quality Management Plan.** Dredging operations shall employ BMPs to protect water quality, including through the use of turbidity controls, such as silt curtains, around the dredge operation. Dredging operations shall incorporate water quality monitoring, including monitoring for turbidity, dissolved oxygen and biological responses (e.g., fish kills) within the vicinity of the dredge site. If water quality is significantly degraded, as evidenced by an adverse biological response or a more than 30% change in water quality conditions between the dredge site and an upcurrent reference site, the Permittee shall notify the Commission and DMMT member agencies and implement suitable adaptive management measures consistent with DMMT recommendations.
  - c. Public Recreational Access Protection.** Dredging operations, including equipment staging, shall be conducted in such a manner as to avoid, to the greatest extent possible, interference with public recreational access in the marina, Morro Bay Harbor and surrounding area. At a minimum, all measures to be implemented to avoid public recreational access impacts shall be identified.
  - d. Equipment Maintenance.** All dredging equipment shall be maintained and inspected on a regular schedule to ensure proper operation and to eliminate any potential for spills, waterway or beach access conflicts.
  - e. Upland Disposal.** Sediment from the inner marina (dredge unit 2B) shall be properly disposed of at an inland location outside of the coastal zone (i.e., landfill or equivalent). Any disposal or





reuse of the material in the coastal zone shall require an amendment to this coastal development permit.

- f. Site Documents.** The DOP shall provide that copies of the signed coastal development permit and the approved DOP be maintained in a conspicuous location at the job site at all times, and that such copies are available for public review on request. All persons involved with the project shall be briefed on the content and meaning of the coastal development permit and the approved DOP, and the public review requirements applicable to them, prior to commencement of construction.
- g. Project Coordinator.** The DOP shall provide that a project coordinator be designated to be contacted during dredging should questions arise regarding the project (in case of both regular inquiries and emergencies), and that their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of the dredging, is conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with indication that the project coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The project coordinator shall record the name, phone number, and nature of all complaints received regarding the dredging project, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.
- h. Notification.** The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

The Permittee shall undertake development in accordance with the approved DOPs.

- 4. Eelgrass Monitoring Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two copies of an eelgrass monitoring plan (EMP) to the Executive Director for review and approval. The EMP shall, at a minimum, provide for the following:
  - a. Eelgrass Protection.** All eelgrass beds in the project area shall be identified in site plan view, and shall be protected as eelgrass habitat in perpetuity.
  - b. Monitoring.** Monitoring by a qualified biologist experienced with eelgrass shall be conducted to monitor the health and extent of eelgrass beds in the project area during the course of dredging under this CDP. A monitoring report shall be submitted to the Executive Director for review and approval within three months of completion of Phase I dredging efforts. The report shall at a minimum include a site plan and written description of the status of eelgrass beds in the project area. If the report identifies a reduction in eelgrass coverage as compared to then existing eelgrass coverage at the time of permit approval, then the report shall identify remedial measures to offset such reduction within the eelgrass beds in the project area at a 1.2.:1 basis. In such case, reporting shall continue on an annual basis for at least three years or until all such eelgrass beds



are supporting eelgrass as documented in two consecutive annual reports, whichever is later.

The Permittee shall undertake development in accordance with the approved Eelgrass Monitoring Plan.

- 5. Other Agency Approvals.** PRIOR TO THE COMMENCEMENT OF EACH DREDGING PHASE (PHASE I AND PHASE II) ALLOWED UNDER THIS PERMIT, the Permittee shall submit to the Executive Director for review a copy of a valid permit, letter of permission, or evidence that no permit is necessary for the applicable project phase authorized by this CDP from the following agencies: ACOE, EPA, and RWQCB.
- 6. Permit Expiration.** This coastal development permit shall be valid for either 5 years from the date of Commission approval (i.e., until June 16, 2016) or until expiration of the Army Corps of Engineer's dredging permit, whichever occurs first.
- 7. Final Monitoring Program.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the two copies of a Final Monitoring Program for review and written approval of the Executive Director. The Final Monitoring Program shall detail the results of nearshore sediment disposal, and shall be in substantial conformance with the monitoring program described in the Anchor QEA Memo of April 28, 2011 (dated received in the Commission's Central Coast District Office April 28, 2011), except that it shall incorporate additional monitoring of the offshore environment to document the ultimate disposition of fine grained sediment in the offshore environment. In addition, the Program shall include a reporting component requiring the submittal of monitoring results to the Executive Director. The Permittee shall undertake monitoring in accordance with the approved Final Monitoring Program.
- 8. Pumpout Water Quality Management Plan (PWQMP).** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two copies of a Pumpout Water Quality Management Plan (PWQMP) for the review and written approval of the Executive Director. The PWQMP shall be prepared by a licensed water quality professional, and shall include plans, descriptions, and supporting calculations for the operation and maintenance for the pumpout facility, including over-water sewer lines, that at a minimum addresses the following: the over-water sewer lines including all pipes from sewage pumpout facilities, the on-dock boating facilities, and any other pipe which leads to a sanitary sewer. The PWQMP shall provide that the over-water sewer lines shall be visually inspected at least once per week and dye- or pressure-tested at least once every six months. All leaks shall be repaired immediately upon discovery. If the Permittee determines that a more stringent procedure is necessary to ensure protection of coastal water quality, then the Permittee shall update the operation and maintenance plan and submit any updates for the review and written approval of the Executive Director.
- 9. Marina Best Management Practices Program.** By acceptance of this permit the Permittee agrees that the long-term water-borne berthing of boat(s) in the approved docks and boat slips will be managed in a manner that protects water quality pursuant to the implementation of the following BMPs.



**a. Boat Cleaning and Maintenance Measures.**

1. In-water top-side and bottom-side boat cleaning shall minimize the discharge of soaps, paints, and debris.
2. In-the-water hull scraping or any process that occurs under water that results in the removal of paint from boat hulls shall be prohibited. Only detergents and cleaning components that are designated by the manufacturer as phosphate-free and biodegradable shall be used, and the amounts used minimized.
3. The use of detergents and boat cleaning and maintenance products containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates or lye shall be minimized.

**b. Solid and Liquid Waste Management Measures.**

1. All trash, recyclables, and hazardous wastes or potential water contaminants, including old gasoline or gasoline with water, absorbent materials, oily rags, lead acid batteries, anti-freeze, waste diesel, kerosene and mineral spirits will be disposed of in a proper manner and will not at any time be disposed of in the water or gutter.

**c. Petroleum Control Management Measures.**

1. Boaters shall practice preventive engine maintenance and shall use oil absorbents in the bilge and under the engine to prevent oil and fuel discharges. Oil absorbent materials shall be examined at least once a year and replaced as necessary. Used oil absorbents are hazardous waste in California. Used oil absorbents must therefore be disposed in accordance with hazardous waste disposal regulations. Boaters shall regularly inspect and maintain engines, seals, gaskets, lines and hoses in order to prevent oil and fuel spills. The use of soaps that can be discharged by bilge pumps is prohibited.
2. If the bilge needs more extensive cleaning (e.g., due to spills of engine fuels, lubricants or other liquid materials), boaters shall use a bilge pump-out facility or steam cleaning service that recover and properly dispose or recycle all contaminated liquids.
3. Bilge cleaners containing detergents or emulsifiers shall not be used for bilge cleaning since they may be discharged to surface waters by the bilge pumps.

**10. Liability for Costs and Attorneys Fees.** The Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys fees (including but not limited to such costs/fees that are: (1) charged by the Office of the Attorney General; and (2) required by a court that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Permittee shall reimburse the Coastal Commission within 60 days of being informed by the Executive Director of the amount of such costs/fees. The Coastal Commission retains complete authority to conduct and direct the



defense of any such action against the Coastal Commission.

## 5. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The City of Morro Bay, acting as lead agency under CEQA, certified an EIR for the project in October 2008 and an Addendum to the EIR in August 2010. The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. The Commission has reviewed the relevant coastal resource issues with the proposed project, and has identified appropriate and necessary modifications to address adverse impacts to such coastal resources. All public comments received to date have been addressed in the findings above. All above findings are incorporated herein in their entirety by reference.

The Commission finds that only as modified and conditioned by this permit will the proposed project avoid significant adverse effects on the environment within the meaning of CEQA. As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects that approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. If so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).



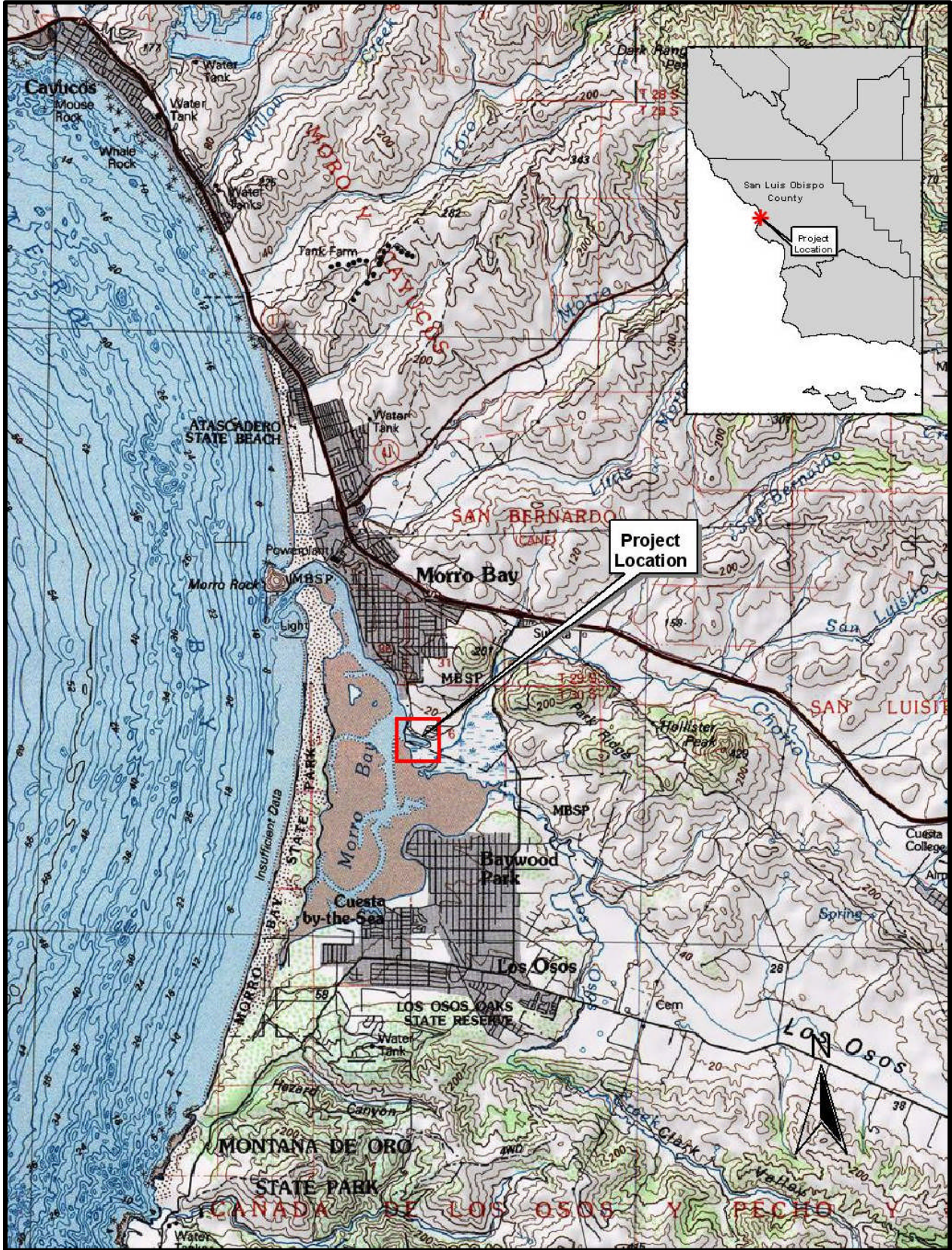


Figure 1. Study area location.



G:\Backup of AutoCAD Project Files on Disneyland\080200-01-Morro Bay\CIVIL-3D\Production-Drawings\080200-01\_C3D\_RP\_018.dwg Figure 1



Mar 15, 2011 6:35pm banaya

**SOURCE:** Drawing prepared from NAIP 2009.  
**HORIZONTAL DATUM:** California State Plane, Zone V, NAD 83.

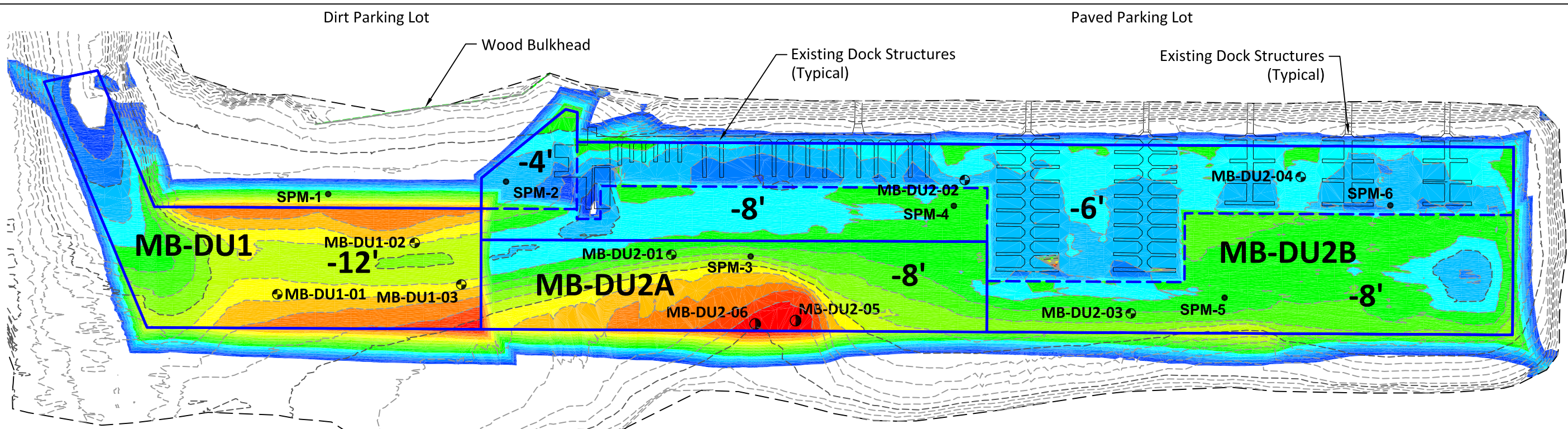


Not to Scale



**Figure 1**  
Vicinity Map  
Morro Bay State Park Marina Maintenance Dredging  
3-10-056 (Morro Bay State Park Marina Dredging)  
Exhibit B

L:\AutoCAD Project Files\080200-01-Morro Bay\CIVIL-3D\Production-Drawings\080200-01\_C3D\_RP\_016.dwg Figure 5



Thickness of Proposed Dredge Cut in Feet	Color
12 or More	Red
11 to 12	Orange
10 to 11	Light Orange
9 to 10	Yellow-Orange
8 to 9	Yellow
7 to 8	Light Green
6 to 7	Green
5 to 6	Light Green
4 to 5	Cyan
3 to 4	Light Blue
2 to 3	Blue
1 to 2	Dark Blue
0 to 1	Blue
No Cut	White

Proposed Maintenance Dredging Volumes

Composiste Area	Subarea	Cut Volume	2-Foot Overdepth Allowance Volume	Total Volume
MB-DU1 (-12' MLLW)	N/A	22,500	5,000	27,500
MB-DU2 (-4' to 8' MLLW)	MB-DU2A	19,000	4,500	23,500
	MB-DU2B	29,500	14,000	43,500
<b>Totals</b>		<b>71,000</b>	<b>23,500</b>	<b>94,500</b>

Mar 16, 2011 10:38am banaya

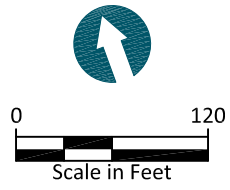
**SOURCE:** Basemap prepared from line work and bathymetry provided by Reese Water and Land Surveying (January 2010).  
**HORIZONTAL DATUM:** California State Plane, Zone V, NAD83.  
**VERTICAL DATUM:** mean lower low water (MLLW).

**LEGEND:**

- Composite Areas for the Determination of Suitability for Nearshore Placement
- Previous Sampling Locations (By Others)
- ⊕ Sampling Locations

- Grain Size Sampling Locations
- ⊕ Conceptual Design Dredge Elevation
- Extents of Bathymetry

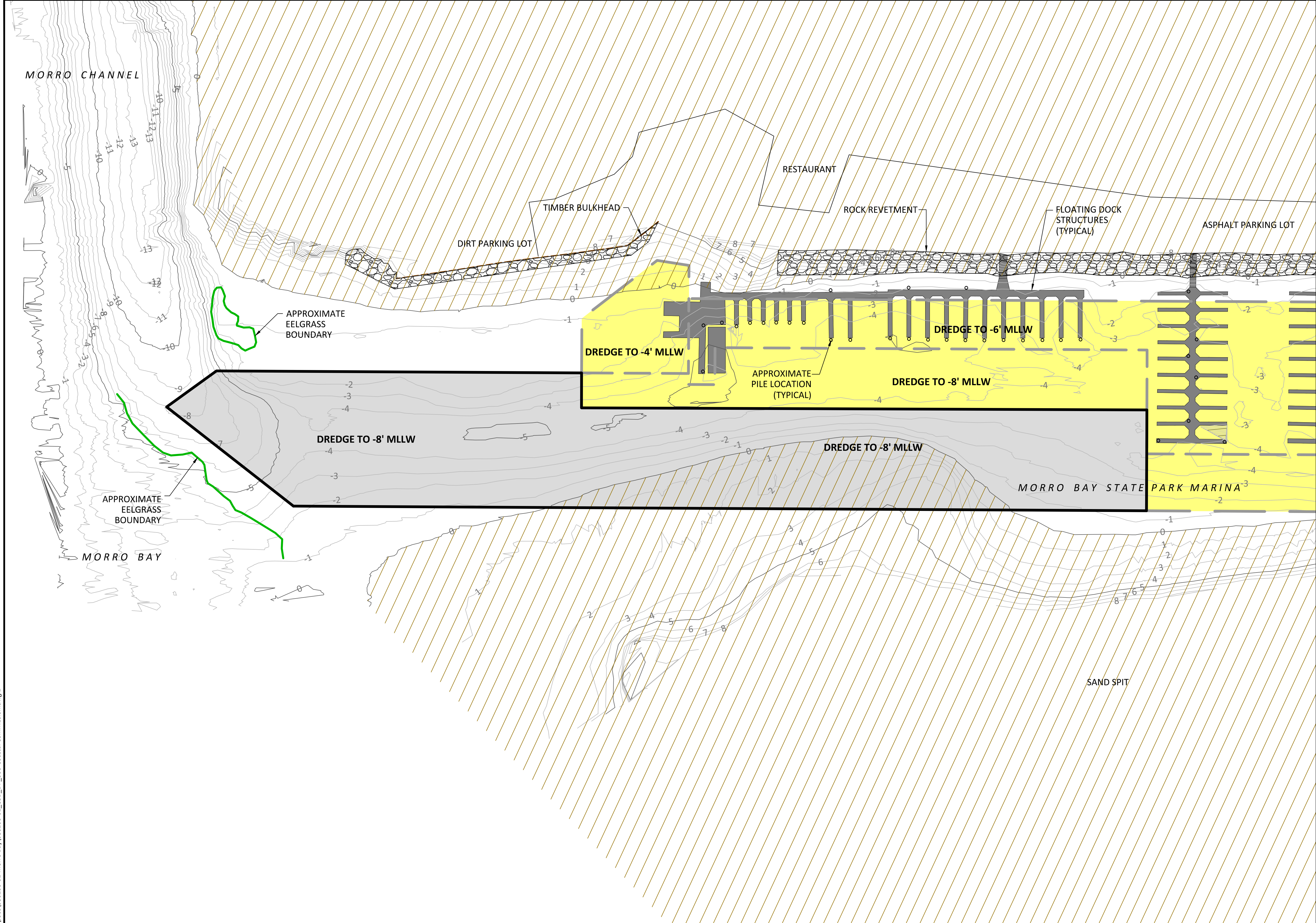
- Existing Contour (Major)
- Existing Contour (Minor)



**Figure 5**

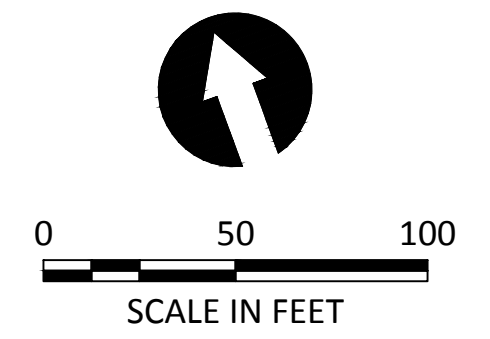
Actual Sampling Locations and Revised Dredge Units  
 Morro Bay State Park Marina Maintenance Dredging  
 3-10-056 (Morro Bay State Park Marina Dredging)  
 Exhibit C





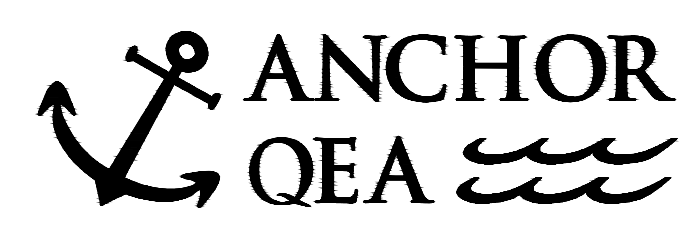
- LEGEND:
- FUTURE DREDGE AREA
  - DREDGE AREA
  - OVERWATER STRUCTURES AND UPLAND AREAS
  - ROCK REVETMENT
  - AREAS OF ELEVATION HIGHER THAN 0' MLLW
  - EXISTING BATHYMETRY CONTOUR IN FEET (MLLW)

- NOTES:
1. BATHYMETRY AND SITE FEATURES PREPARED FROM SURVEY BY REESE WATER AND LAND SURVEYING, DATED JANUARY 2010.
  2. HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET.
  3. VERTICAL DATUM: MEAN LOWER LOW WATER (MLLW).
  4. LOCATION AND EXTENTS OF EXISTING OVERWATER STRUCTURES ARE APPROXIMATE, FIELD VERIFY LOCATION AND CONDITION. CONTRACTOR SHALL DREDGE TO EXTENTS SHOWN AND SHALL ENSURE NO DAMAGE OCCURS TO ANY STRUCTURES.
  5. LOCATION AND EXTENTS OF ROCK REVETMENT WALL ARE APPROXIMATE AND PROVIDED FOR GENERAL REFERENCE ONLY.
  6. PILE LOCATIONS ARE APPROXIMATE AND PROVIDED FOR REFERENCE ONLY.
  7. CONTRACTOR SHALL DREDGE WITHIN REQUIRED LIMITS AND ONLY THOSE AREAS HIGHER THAN REQUIRED DREDGE GRADES.
  8. IMMEDIATELY ADJACENT TO THE REQUIRED DREDGE PRISM, MATERIAL MAY SLOUGH INTO DREDGED AREAS. THIS MATERIAL SHALL BE REMOVED FROM WITHIN THE DREDGE PRISM AS NECESSARY TO ACHIEVE DESIGN GRADES.



ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY

Apr 25, 2011 11:48am banaya K:\Jobs\080200-01-Morro Bay\080200-01\_C3D\_DP\_006-Coastal Commission.dwg 1



**City of Morro Bay**  
595 Harbor Street  
Morro Bay, California 93442

**DRAFT - FOR  
REGULATORY  
REVIEW ONLY**

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: R. WALKER  
DRAWN BY: B. ANAYA  
CHECKED BY: R. WALKER  
APPROVED BY: M. WHELAN  
SCALE: AS SHOWN  
DATE: April 22, 2011

**MORRO BAY STATE PARK MARINA MAINTENANCE  
DREDGING**

**CONCEPTUAL DREDGE PLAN**

**1**

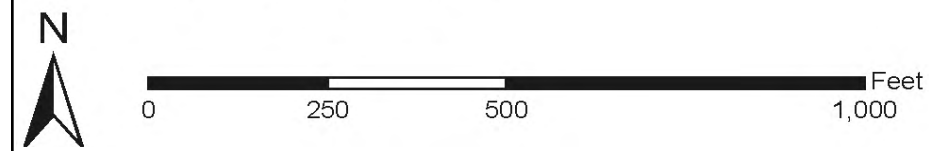
SHEET NO. 1 OF 1





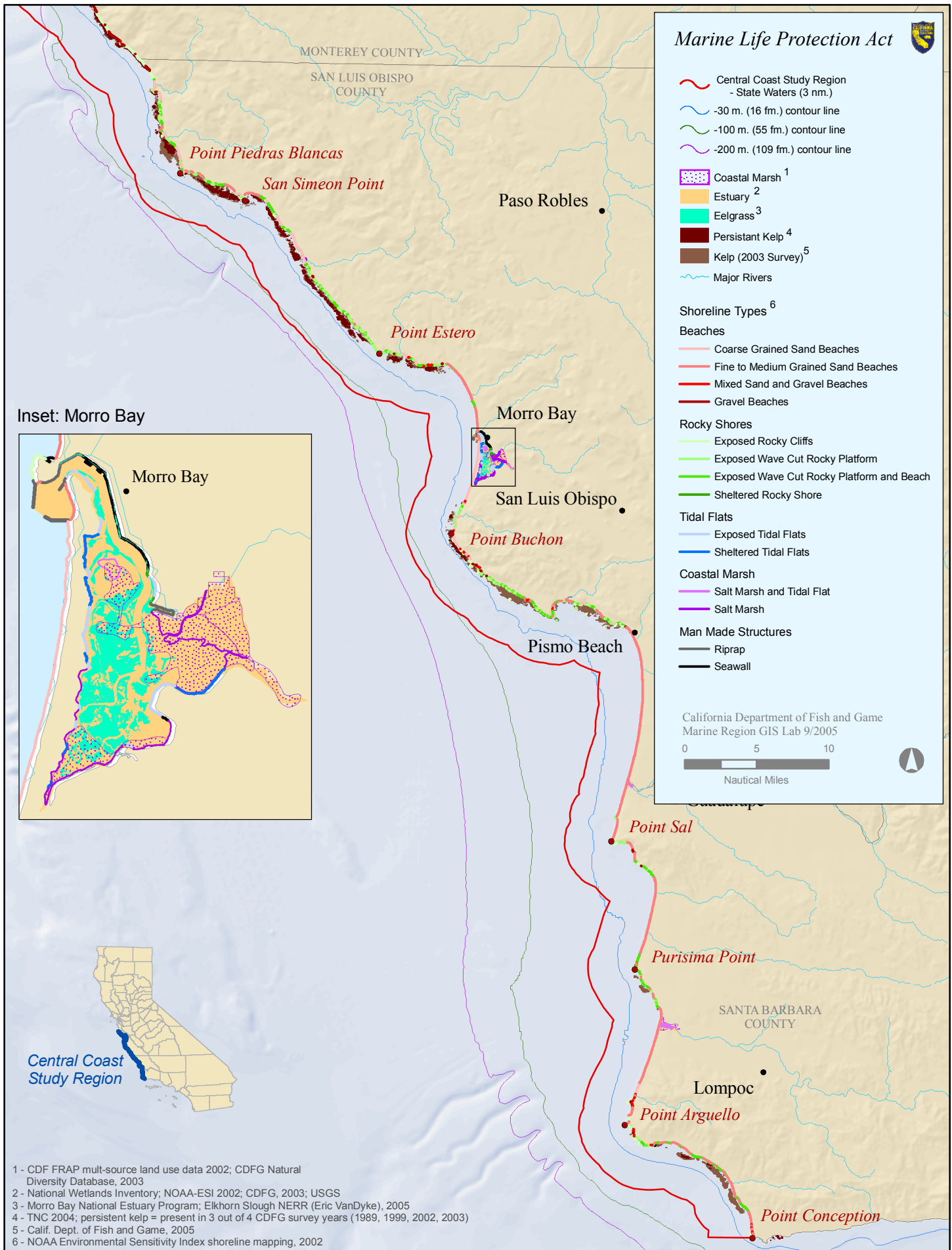
Source: USGS (1937, 1957, 1972); AirPhoto USA (2005).

Note: Solid arrows indicated transport through well defined channel.  
Dashed arrows representing transport through diffuse channel.



Morro Bay Marina Enhancement EIR/EIS  
Change in Sediment Supply to Morro Bay Marina  
PWA Ref. # 1747





Map 2b. Intertidal and Nearshore Habitats - Southern Central Coast Study Region

TH106

STATE CAPITOL  
SACRAMENTO, CA 95814  
(916) 651-4015

# California State Senate

SENATOR  
**SAM BLAKESLEE, PH.D.**  
FIFTEENTH SENATE DISTRICT

**RECEIVED**

JUN 08 2011

CALIFORNIA  
COASTAL COMMISSION  
CENTRAL COAST AREA



June 3, 2011

Madeline Cavalieri  
Coastal Program Analyst  
California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, CA 95060-4508

Dear Ms. Cavalieri,

I am writing to express my support of the City of Morro Bay's proposed Morro Bay State Park Marina maintenance dredging project. The marina falls within Senate District 15, which I am proud to represent in the California State Senate. Having grown up on the Central Coast and as a resident of San Luis Obispo County, I recognize the importance of maintaining our valuable coastal resources and park facilities. The Morro Bay State Park and marina attract thousands of visitors each year to enjoy the natural beauty of the bay. The marina itself provides low cost access to the bay for residents and visitors alike and is in great need of dredging to maintain its navigable capacity.

I support the City's environmentally protective and cost-effective approach to managing the dredged sediment through nearshore placement of the material for beneficial use. The City has evaluated a wide range of project alternatives and has worked closely with the California Coastal Commission and other regulatory and resource agencies to develop a proposal that maximizes the benefit to the public and makes the most efficient use of public funds.

For these reasons, I strongly support the proposed maintenance dredging and urge the Commission to approve the proposed project to maintain this valuable public asset.

Sincerely,

A handwritten signature in black ink, appearing to read "Sam Blakeslee", with a long horizontal line extending to the right.

Senator Sam Blakeslee  
15th District