

## CALIFORNIA COASTAL COMMISSION

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Th17a



**Prepared September 8, 2008 (for September 11, 2008 hearing)**

**To:** Commissioners and Interested Persons

**From:** Dan Carl, District Manager  
Jonathan Bishop, Coastal Planner

**Subject: STAFF REPORT ADDENDUM for Th17a  
CDP 3-08-005 (Port San Luis Five-Year Operations and Maintenance Program)**

In the time since the release of the above-referenced staff report, staff has identified some minor corrections that will help clarify certain aspects of the staff recommendation with respect to containment requirements during construction and the future use of piling materials.

**A. Special condition 3, starting on page 4 of the staff report, is modified as follows:**

**3. Containment Requirements.** Particular care shall be exercised to prevent foreign materials (e.g., construction scraps, wood preservatives, other chemicals, etc.) from entering state waters. Where additional wood preservatives must be applied to cut wood surfaces, the materials, wherever feasible, shall be treated at an onshore location to preclude the possibility of spills into state waters. ~~A floating containment boom shall be placed around all active portions of a construction site where wood scraps or other floatable debris could enter the water. Also, for any work on or beneath fixed wharf decks, heavy duty mesh containment netting shall be maintained below all work areas where construction discards or other material could fall into the water. The floating boom and net shall be cleared daily or as often as necessary to prevent accumulation of debris.~~ Construction debris shall be contained and collected using all appropriate means necessary (including but not limited to, the use of floating containment booms; containment netting; skiffs for debris retrieval; portable vacuum equipment; etc.) to ensure that foreign materials are kept out of state waters to the maximum extent feasible. Contractors shall ensure that work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills. Construction contracts shall contain appropriate penalty provisions, sufficient to offset the cost of retrieving or clean up of foreign materials not properly contained.

**B. Special condition 4, starting on page 5 of the staff report, is modified as follows:**

**4. Piling Materials.** This coastal development permit authorizes the use of Port San Luis Harbor District's existing stocks (as of September 11, 2008) of ACZA treated wood, as well as untreated wood, reinforced plastic, steel, or concrete for pier pilings. After existing stocks are depleted, ~~ACZA treated wood pilings may be used only if other approved alternatives are shown to be structurally unsound or environmentally unsafe~~ the District shall submit a pier pile repurchase plan for Executive Director review and approval. The repurchase plan shall show that the piles to be



California Coastal Commission

3-08-005 (Port SLO 5-year OM) stfrpt addendum 9.11.2008 hrg

purchased are the least environmentally damaging feasible alternative and shall include the District's criteria for selection. The District shall only repurchase an amount of pier piles sufficient to last through the duration of this 5-year permit.

**C. The following typographical errors are corrected on page 8 of the staff report:**

Line 2: (Exhibit ~~1~~ A)

Line 5: Exhibit ~~2~~ B

5. ... The sport launch has a ~~15-ton~~ 15,000 pound capacity.

**D. Staff report findings are modified on page 13 as follows:**

In order to ensure that the hazardous substances associated with the proposed development activities are adequately contained consistent with Coastal Act standards, Special Condition 3 requires particular care to be exercised in order to prevent foreign materials from entering the water. Specifically, it requires that the application of chemical preservatives be undertaken at onshore locations, whenever feasible, to avoid spills into coastal waters and requires that all measures be taken to ensure debris is contained and collected at the construction site. In addition, the condition requires that work crews be briefed on the importance of observing appropriate BMP's during construction and reporting any accidental spills.

- ~~the application of wood preservatives be undertaken at an onshore location, whenever feasible, to preclude the possibility of spills into coastal waters;~~
- ~~a floating containment boom be placed around all active portions of a construction site where wood scraps or other floatable debris could enter the water;~~
- ~~for any work on or beneath fixed wharf decks, heavy duty mesh containment netting shall be maintained below all work areas where construction discards or other material could fall into the water. The floating boom and net shall be cleared daily or as often as necessary to prevent accumulation of debris; and,~~
- ~~project contractors ensure that the work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills.~~

**E. Staff report findings are modified on page 17 as follows:**

One of the most critical issues regarding the protection of marine resources and coastal water quality raised by this project is the proposed use of ACZA treated wood pilings. Scientific studies conducted to date have focused on unwrapped treated piles, and there are varying opinions regarding whether or not these studies accurately reflect the potential environmental impacts that may result from use in the marine environment. Recognizing the fact that the Port has existing stocks of ACZA treated wood piles, a ~~phasing-out~~ condition has been included that ~~limits the use of ACZA to that which is currently in stock at the Port at the time of Commission hearing on this permit~~ requires the District



to submit a plan to the Executive Director for review and approval before additional stocks of pier piles are repurchased (Special Condition 4). The repurchase plan shall include the District's criteria for selecting the least environmentally damaging feasible alternative and shall indicate that the amount of piles to be purchased will not exceed an amount necessary to fulfill the 5-year term of this permit. In any event, all pier pilings must be carefully monitored (Special Condition 4). If monitoring confirms that the use of wrapped ACZA piles is damaging marine resources, the use of such materials should be stopped, as more environmentally friendly products are developed. Finally, this permit provides for containment of construction debris, construction related BMP's, requirements for contractors regarding accidental spills, Corps of Engineers and Regional Water Quality Control Board permit coordination, and precautionary measures prohibiting the use of chemically treated wood products.



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Th17a



Filed:	4/1/2008
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Staff report prepared:	8/21/2008
Staff report prepared by:	J.Bishop
Staff report approved by:	D.Carl
Hearing date:	9/11/2008

## COASTAL DEVELOPMENT PERMIT APPLICATION

**Application number** .....3-08-005 Port San Luis Five-Year Operations & Maintenance Program

**Applicant**.....Port San Luis Harbor District

**Project location** .....Port San Luis Harbor in the Avila Beach area of San Luis Obispo County.

**Project description**.....Five-year operations and maintenance program including repair and maintenance associated with: channel markers, regulatory buoys, moorings, floating docks, seawalls/revetments, decking, stringers, caps, ladders, stairs, hoists, parking lot, docks and gangways. Maintenance and repairs will not expand existing development past its existing permitted configuration and specifications.

**File documents**.....Coastal Commission Coastal Development Permits (CDPs) 3-97-078, 3-97-078-A1, and 3-02-071.

**Staff recommendation** ...Approve with Conditions

**Summary:** Port San Luis Harbor District (PSLHD) proposes to undertake development associated with routine harbor repair and maintenance activities within a five year period (2008 - 2013). These activities include repair and maintenance of channel markers; regulatory buoys; moorings; floating docks; seawalls/revetments; dock pilings; decking; stringers; caps; ladders; stairs; hoists; parking lots; storm drains; accessways; docks; and gangways. All repair and maintenance activities proposed would not expand existing development past its existing permitted configuration and specifications.

The proposed repair and maintenance activities are located entirely within the Coastal Commission's permit jurisdiction. Thus, the standard of review is the Chapter 3 policies of the California Coastal Act. The Coastal Act requires that marine resources and the biological productivity of coastal waters be maintained and enhanced (Coastal Act Sections 30230 and 30231). Potential impacts of the proposed repair and maintenance activities include primarily the discharge of harmful materials to the marine environment, thereby potentially degrading water quality and harming marine life. For example, toxic chemicals used to treat dock pilings can break down over time or leach into the water column, resulting in adverse impacts to the biological productivity of the marine environment. Similarly, installation of piles has the potential to stir up sediments on the ocean floor increasing turbidity of coastal waters. In addition, the pH of marine water becomes elevated if it comes in contact with uncured concrete.



**California Coastal Commission**  
**September 2008 Meeting in Eureka**

Staff: J. Bishop Approved by:  
Th17a-9-2008

Elevated pH levels can be toxic to marine life.

In this case, the project has been designed in a manner which strives to avoid adverse impacts on marine resources. Measures that have been incorporated into the project include: monitoring, containment of materials, and limiting activities so as not to exceed the configuration and specifications of existing structures. Nevertheless, additional measures are needed to minimize potential project impacts on marine resources and the biological productivity of coastal waters consistent with the Coastal Act. Staff therefore recommends that the Commission **approve** the proposed development subject to special conditions that:

- Require Executive Director review and approval of final project plans for each element of the project. This will ensure that construction activities will be conducted in a manner that avoids adverse impacts to the marine environment;
- Require implementation of BMP's for all construction related activities;
- Specify procedures for concrete work designed to eliminate the possibility of marine water coming into contact with uncured concrete;
- Require the wrapping of chemically treated pier pilings; and that installation be performed according to the method that results in the least disturbance of bottom sediments.

The proposed project is the renewal of the Port's previous 5-year repair and maintenance CDP approved by the Commission in 2002 (CDP 3-02-071). These activities proposed are nearly identical, and subject to the nearly identical terms and conditions, as were approved by the Commission in 2002. As conditioned by this permit, the project is consistent with Coastal Act Chapter 3 policies regarding marine resources, Commercial and recreational fishing and boating, and public recreational access. Therefore, staff recommends **approval with conditions**.

## Report Contents

I. Staff Recommendation on CDP Application.....	3
II. Conditions of Approval .....	3
A. Standard Conditions.....	3
B. Special Conditions .....	4
III. Recommended Findings and Declarations.....	7
A. Project Description and Background .....	7
1. Background and Purpose .....	7
2. Project Location and Description .....	7
B. Issue Analysis.....	9
1. Marine Resources .....	9
2. Commercial Fishing and Boating .....	17



3. Public Access and Recreation.....	17
4. California Environmental Quality Act (CEQA) .....	18
IV. Exhibits	
Exhibit A: Vicinity Map	
Exhibit B: Maintenance Detail	

## I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

**Motion.** I move that the Commission approve Coastal Development Permit Number 3-08-005 pursuant to the staff recommendation.

**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.

## II. 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.



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. **Permit Expiration.** This permit shall be valid for 5 years from the date of Commission approval (until September 11, 2013).
2. **Final Project Plans.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF EACH RESPECTIVE ELEMENT OF THE OPERATIONS AND MAINTENANCE PROGRAM, as identified in the list set forth in Section III A (2) of this staff report, the Permittee shall submit for Executive Director review and approval final project plans for that element of the program. Such final plans shall identify the exact design and location of the development, materials to be used, and the disposal area for removed or demolished materials. Such final plans shall also be accompanied by a construction phasing plan which consists of a written description and supporting graphics outlining phasing and construction sequence (phasing); seasonal considerations (tidal and wave constrains); and location of equipment staging areas, employee restrooms, employee parking, temporary security fencing, concrete washdown facility, and any similar elements which would affect ocean water quality or public access to the shoreline. To the maximum extent feasible, construction shall maintain opportunities for public parking and for shoreline access during construction.

Certain minor repair and maintenance activities included within the operations and maintenance program as identified in the list set forth in Section III A (2) of this staff report (e.g., the replacement of a single pile cap), do not require the submission of the final plan specified in the preceding paragraph provided the Permittee shall notify the Executive Director of the repair and maintenance activity proposed to be undertaken PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. If the Executive Director determines that the activity is minor (i.e., it will not have a significant adverse impact on coastal resources), then the activity can proceed without submittal of final plans.

3. **Containment Requirements.** Particular care shall be exercised to prevent foreign materials (e.g., construction scraps, wood preservatives, other chemicals, etc.) from entering state waters. Where additional wood preservatives must be applied to cut wood surfaces, the materials, wherever feasible, shall be treated at an onshore location to preclude the possibility of spills into state waters. A floating containment boom shall be placed around all active portions of a construction site where wood scraps or other floatable debris could enter the water. Also, for any work on or beneath fixed



wharf decks, heavy-duty mesh containment netting shall be maintained below all work areas where construction discards or other material could fall into the water. The floating boom and net shall be cleared daily or as often as necessary to prevent accumulation of debris. Contractors shall insure that work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills. Construction contracts shall contain appropriate penalty provisions, sufficient to offset the cost of retrieving or clean up of foreign materials not properly contained.

#### 4. Piling Materials.

This coastal development permit authorizes the use of Port San Luis Harbor District's existing stocks (as of September 11, 2008) of ACZA treated wood, as well as untreated wood, reinforced plastic, steel, or concrete for pier pilings. After existing stocks are depleted, ACZA treated wood pilings may be used only if other approved alternatives are shown to be structural unsound or environmentally unsafe. ACZA treated pilings shall be used only if wrapped PRIOR TO INSTALLATION in a water tight plastic sleeve, and in a manner acceptable to the Executive Director as follows:

- The material used shall be durable and a minimum of one-tenth of an inch thick.
- All joints shall be sealed to prevent leakage.
- Sealing or capping the tops of the pilings shall prevent ACZA surface exposure.
- The plastic sleeves shall extend a minimum of 18 inches below the mudline.

To prevent the introduction of toxins and debris into the marine environment, the use of plastic wrapped ACZA pilings shall also conform to the following requirements:

- a. Inspection and Maintenance Program. The Permittee shall periodically inspect pilings installed under this permit, and shall immediately undertake any repairs necessary to maintain the wrapping and/or structural integrity of the pilings. ON AN ANNUAL BASIS FOR ALL PLASTIC WRAPPED PILES THAT MAY COME INTO CONTACT WITH BOATS, AND ON A BIENNIAL BASIS FOR THOSE THAT WILL NOT, beginning one and two years (as applicable) following the date that the first pile is installed, the Permittee shall conduct a piling inspection to ensure the integrity of the pile, and that all corrective actions have or will be immediately undertaken to maintain the plastic wrapping and/or integrity of the pile. The inspections shall be undertaken by boat, during periods of extreme low tides, and synchronized when feasible to precede the periods of maximum expected harbor occupancy. Alternatively, the Permittee may submit a different timeline for the piling inspection program that ensures that the plastic wrapping and/or structural integrity of the pile is properly maintained; the alternative timeline shall be reviewed and approved by the Executive director PRIOR TO THE INSTALLATION OF PLASTIC PILINGS.
- b. New Information. If federal or state regulatory agencies, through new or better scientific information, determine that environmentally less damaging materials or methods are available



for piling replacement, and are feasible to implement, the Permittee shall, after consultation with the Executive Director, revise procedures or use alternative materials consistent with the new information. Other revisions, including the use of other types of preservative-treated piles, may require an amendment to this permit.

5. **Piling Installation Requirements.** New pilings shall be installed according to the method that results in the least disturbance of bottom sediments. Where feasible, disturbed sediments shall be contained with a flexible skirt surrounding the driven pile. The installation contract and/or specifications shall incorporate the applicable portions of the containment requirements of Special Condition 3 above.
6. **Procedures for Concrete Work.** If pile installation, or any other portion of the operations and maintenance program, requires the pouring of concrete in, adjacent to, or over the water, the following methods shall be employed to prevent uncured concrete from entering coastal waters:
  - a. Complete dewatering of the pour site, within a cofferdam or other barrier; the site to remain dewatered until the concrete is sufficiently cured to prevent any significant increase in the pH of adjacent waters; or,
  - b. The tremie method, which involves placement of the form in water, inserting a plastic pipe down to the bottom of the form, and pumping concrete into the form so that the water is displaced towards the top of the form. If this method is selected, the displaced waters shall be pumped off and collected in a holding tank. The collected waters shall then be tested for pH. If the pH is greater than 8.5, the water will be neutralized with sulfuric acid until the pH is between 8.5 and 6.5. This pH-balanced water can then be returned to the sea. However, any solids that settle out during the pH balancing process shall not be discharged to the marine environment; or,
  - c. An alternative method, subject to review and approval by the Executive Director **PRIOR TO THE COMMENCEMENT OF WORK.**

In each case involving such concrete pours in or near coastal waters, the Permittee shall insure that a separate wash out area is provided for the concrete trucks and for tools. The wash out area(s) shall be designed and located so that there will be no chance of concrete slurry or contaminated water runoff into coastal waters.

7. **Water Quality Review.** Permittee shall be responsible for obtaining any necessary approvals from the Regional Water Quality Control Board, including any Section 401 water quality certification or waiver, which may be required. **PRIOR TO THE COMMENCEMENT OF PILE INSTALLATION OR IN-WATER CONSTRUCTION,** the Permittee shall provide written evidence that the Regional Water Quality Control Board (RWQCB) has reviewed and approved the proposed work, or that no such approvals are needed.
8. **Other Agency Approvals.** **PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF ANY SPECIFIC ELEMENT OF THE OPERATIONS AND MAINTENANCE PROGRAM,** the Permittee



shall submit, for Executive Director review and approval, documentation from the Army Corps of Engineers that the project has been reviewed for conformance with Federal agency requirements, and that the project is permitted or that no Corps permits are necessary.

9. **Additional Harbor Improvements.** Additional development activities beyond those specified in this approval shall be submitted for a determination of the appropriate coastal development permit requirements (i.e., a separate Coastal Development permit, amendment to this permit, or waiver).

### III. Recommended Findings and Declarations

The Commission finds and declares as follows:

#### A. Project Description and Background

##### 1. Background and Purpose

Due to the corrosive nature of the marine environment, and constant exposure to the sometimes extreme forces of the Pacific Ocean, harbor facilities are generally in need of constant repair and maintenance. In addition, high levels of public and commercial use of harbor facilities demand that the design of these facilities be well thought out, and where possible, improved, in order to accommodate the numbers of recreational boaters, commercial fisherman, and tourists that utilize harbor facilities. Coastal Act Sections 30234 calls for the protection of such facilities, as well as upgrading such facilities where feasible. Unlike some repair and maintenance activities which are exempt from coastal development permit requirements, Section 13252 of the California Coastal Commission's Administrative Regulations requires a coastal development permit for repair and maintenance in this case as the proposed activities are located in, adjacent to, and above coastal waters because they involve a risk of substantial adverse environmental impact.

Port San Luis Harbor District has prepared an operations and maintenance program which identifies the repair, maintenance, and related improvement projects that are proposed to be undertaken over the next five years. The packaging of all of these development activities into one permit application has been encouraged by Commission staff, and well received by the Port, as a means of efficiently processing the routine development activities associated with the operation of a major port facility. Special conditions have been attached to this permit to ensure that these activities will not have an adverse impact on coastal resources from both an individual and cumulative standpoint, consistent with the Chapter 3 policies of the California Coastal Act.

##### 2. Project Location and Description

Port San Luis Harbor is located south of Morro Bay and north of Pismo Beach, between Point San Luis and the east end of Avila Beach, in San Luis Obispo County (Exhibit 1). The proposed project is the



renewal of the Port's previous 5-year repair and maintenance CDP approved by the Commission in 2002 (CDP 3-02-071). The general location and the details of the specific repair and maintenance activities proposed are shown in Exhibit 2. These activities are nearly identical, and subject to the nearly identical terms and conditions, as were approved by the Commission in 2002. As described in the coastal development permit application, the proposed repair and maintenance activities include:

1. **San Luis Bay:** A COLREGS Demarcation line extends from the USACE breakwater to Fossil Point and represents the Harbor District's main interest in San Luis Bay. A number of existing facilities may require repair and maintenance under the proposed program, including: channel markers, regulatory buoys, permanent and seasonal moorings, floating docks, and revetments.

The original permit application also included repair and replacement activities associated with the Avila Beach waste water line. Upon request of Commission staff, this element is no longer included in this repair and maintenance proposal and will be reviewed under its own separate application.

2. **Harford Pier:** The historic Harford wooden pier, originally built in 1873, is approximately 1,456 feet long with an average width of 39 feet and approximately 120 feet wide at the terminus. Repair and maintenance activities will not exceed the original pier footprint and structural repairs will be made with materials similar to the original construction. No alterations to the historic qualities will be made. The following existing facilities may require repair and maintenance under the proposed program: decking, stringers, caps, rails, piles, ladders, stairs, floating and fixed landings, and hoists.
3. **Harford Land Area:** The Harford land area is a combination of reinforced concrete or asphalt over an aggregate base adjacent to a seawall/revetment armoring structure. A portion of the armoring structure is constructed of 1-4 ton rock, 25 lb. rip-rap, filter fabric, and class B concrete base. Repair and maintenance activities will not exceed the existing configuration, and structural repairs will be made with materials similar to the original construction. The following existing facilities may require repair and maintenance under the proposed program: parking lot, seawall, concrete revetments, and storm drains.
4. **Mobile Hoist Pier:** The mobile hoist pier is designed to haul and launch commercial and recreational vessels. The mobile hoist has a 60-ton capacity. The mobile hoist pier is constructed of steel reinforced concrete, and is adjacent to a revetment and a concrete seawall. Repair and maintenance activities will not exceed the existing configuration and structural repairs will be made with materials similar to the original construction. The following existing facilities may require repair and maintenance under the proposed program: mobile hoist pier, concrete piles, floating dock, deck rails, ladders, seawall, and concrete revetments.
5. **Sport Launch Basin:** The sport launch basin is designed to haul and launch recreational boats. The sport launch has a 15-ton capacity. The sport launch basin is constructed of steel reinforced concrete and is adjacent to a revetment and a concrete seawall. Repair and maintenance activities will not exceed the existing configuration and structural repairs will be made with materials similar to the original construction. The following existing facilities may require repair and maintenance under the proposed program: sport launch hoist, docks and gangways, seawalls, and revetment.



6. **Fisherman/Olde Port Beach:** Fisherman's Beach and Olde Port Beach are located between the Sport Launch and the Cal Poly Pier. Repair and maintenance activities will not exceed the existing configuration and structural repairs will be made with materials similar to the original construction. The following existing facilities may require repair and maintenance under the proposed program: stairs, trail to beach, vehicle and pedestrian ramps, storm drains, seawalls, and revetment.
7. **Avila Beach:** Avila Beach is located between Cal Poly Pier and Fossil Point. Repair and maintenance activities in this area will not exceed the existing configuration and structural repairs will be made with materials similar to the original construction. The following existing facilities may require repair and maintenance under the proposed program: stairs, recreational equipment (swings, slide, barbecues, picnic tables, and volleyball posts), lifeguard headquarters/tower, ramps, storm drains, and concrete seawall.
8. **Avila Pier:** This wooden pier is 1,635 feet long with an average width of 20 feet and approximately 120 feet wide at its terminus. Repair and maintenance activities will not exceed the existing configuration and structural repairs will be made with materials similar to the original construction. The following existing facilities may require repair and maintenance under the proposed program: decking, stringers, caps, rails, piles, ladders and stairs, fixed landings, utilities, and hoists.

See Exhibit 2 for a detailed description of each respective element of the proposed operations and maintenance program.

## B. Issue Analysis

### 1. Marine Resources

Several Coastal Act sections protecting marine resources apply to the subject project. In particular:

***Section 30230 Marine resources; maintenance*** – *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.*

***Section 30231 Biological productivity; water quality*** – *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.*



**Section 30232 Oil and hazardous substance spills** – 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.

**Section 30233 Diking, filling or dredging; continued movement of sediment and nutrients** –

(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.

...

(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.

...

**Section 30234 Commercial fishing and recreational boating facilities** – 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.

Development in Open Coastal Waters

Components of the operations and maintenance program involve “filling” (through the installation of pilings and mooring blocks) in open coastal waters. More accurately it is that these program activities involve re-filling when existing piles need to be replaced as opposed to new fill per se. The Port



proposes to use plastic wrapped ACZA treated piles when replacement is necessary. Section 30233(a)(3) of the Coastal Act allows such activities for new or expanded boating facilities “where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects.”

Available alternatives to plastic wrapped ACZA treated piles include the no project alternative, or a revised operation and maintenance program involving the use of less environmentally damaging materials. The no project alternative is not considered feasible because it will not maintain facilities used by recreational boaters and commercial fishermen, as required by Coastal Act Section 30234. Similarly, alternative materials would adequately maintain existing boating facilities, or enhance their usability by the public and commercial fishing industry, and would therefore be consistent with the objectives contained in Coastal Act Section 30234. As discussed below, measures to avoid and reduce adverse impacts on coastal resources are required as conditions of project approval. Therefore, the proposed project, as conditioned by this permit, is considered the least environmentally damaging feasible alternative available (see also below).

Protection of Marine Resources

With respect to Coastal Act requirements that mitigation measures be provided to minimize adverse environmental effects (Coastal Act Section 30233), and that marine resources and the biological productivity of coastal waters be maintained (Coastal Act Sections 30230 and 30231), the project has been designed to avoid or reduce adverse impacts on such resources to maximum degree feasible. Such features incorporated by project design include: monitoring, containment of materials, and limiting activities so as not to exceed the configuration and specifications of existing structures.

Nevertheless, additional measures that will minimize project impacts on marine resource and the biological productivity of coastal waters are available, and are necessary to bring the proposed project into Coastal Act consistency. Thus special conditions are applied to the proposed project (see special conditions). The potential impacts, and the measures required by the conditions of this permit to avoid such impacts, are summarized in the following table:

Potential Impacts	Required Mitigation Measures
<p>Construction activities, equipment, and staging and wash down areas have the potential to result in the discharge of harmful materials to the marine environment, thereby reducing water quality, and harming marine life.</p>	<p>Special Condition 2 requires Executive Director review and approval of final plans for each element of the project. This will ensure that construction activities are covered by the permit will be conducted in a manner which minimizes adverse impacts to the marine environment. Special Condition 3 requires measures to prevent foreign materials (e.g., construction scraps, wood preservatives, other chemicals, etc.) from entering state waters.</p>



<p>Treated wood pilings may impact water quality by leaching chemicals/metals into the marine environment.</p>	<p>Special Condition 4 requires wrapping of chemically treated piles and the implementation of a piling inspection and reporting program to ensure that the integrity of the piles is maintained. In addition, the conditions identify that if new or better scientific information reveals that less environmentally damaging materials are feasible to implement repairs, the Permittee is required to revise procedures or use new materials consistent with the new information, after consulting with the Executive Director.</p>
<p>The installation of piles has the potential to stir up sediments on the ocean floor. This increase in turbidity adversely affects marine resources by reducing the amount of light penetration, diminishing water quality, and burying living organisms. In addition, the presence of lead and other contaminants in harbor sediments become more bioavailable when suspended in the water column.</p>	<p>Special Condition 5 requires that piling installation be performed according to the method that results in the least disturbance of bottom sediments. Where feasible, disturbed sediments must be contained with a flexible skirt surrounding the driven pile.</p>
<p>The pH of marine water becomes elevated if it comes in contact with uncured concrete. Elevated pH levels can be toxic to marine life.</p>	<p>Special Condition 6 specifies procedures for concrete work designed to eliminate the possibility of marine water coming into contact with uncured concrete.</p>

Containment of Hazardous Materials

Coastal Act Section 30232 requires that development provide protection against the spillage of crude oil, gas, petroleum products, or hazardous substances. The subject project includes development activities which involve the use and transport of materials hazardous to marine resources, including concrete, asphalt, wood preservatives, as well as fluids and oils associated with mechanized equipment.

In order to ensure that the hazardous substances associated with the proposed development activities are adequately contained consistent with Coastal Act standards, Special Condition 3 requires particular care to be exercised in order to prevent foreign materials from entering the water. Specifically, it requires that:

- the application of wood preservatives be undertaken at an onshore location, whenever feasible, to preclude the possibility of spills into coastal waters;
- a floating containment boom be placed around all active portions of a construction site where wood scraps or other floatable debris could enter the water;



- for any work on or beneath fixed wharf decks, heavy-duty mesh containment netting shall be maintained below all work areas where construction discards or other material could fall into the water. The floating boom and net shall be cleared daily or as often as necessary to prevent accumulation of debris; and,
- project contractors ensure that the work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills.

In addition, Special Condition 3 requires that construction contracts contain appropriate penalty provisions, sufficient to offset the cost of retrieving or clean up of foreign materials not properly contained. Also, Special Conditions 2, 5, and 6 require that construction activities, piling installation, and cement work be implemented in a manner which avoids, to the greatest extent feasible, the discharge of hazardous materials into the marine environment.

#### Water Quality

Coastal Act Section 30231 specifies that the biological productivity and the quality of coastal waters, appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored. The project has the potential to adversely affect water quality through the discharge of harmful materials and disturbance of contaminated sediments. Most significantly, the proposed project has the potential to impact marine resources and coastal water quality through the use of chemically treated pier pilings.

PSLHD is proposing to use ammoniacal copper zinc arsenate (ACZA) treated wood for repairs to existing pier structures. According to the permit application PSLHD currently has 34 ACZA piles and 14 untreated piles in its stockpile. ACZA contains copper, zinc, and arsenic. These chemicals are used to preserve the wood when used in or over the water. Until recently, little research has been conducted on the release of wood preservatives from existing structures and the environmental impacts, if any, of those releases. In each of the studies, measurable amounts of preservatives were shown to be released into the environment. While the degree of environmental accumulation and biological impacts appear to be low, some release does occur.<sup>1</sup> Recognizing the potential impacts of using ACZA treated wood products in the marine environment, a precautionary approach is warranted.

The Commission has been grappling for some time with the issue of chemically treated wood pilings for use in the marine environment. Research into alternatives shows that other materials can be used as replacement piles. These alternatives include: concrete, steel, reinforced plastic, and untreated wood. Given the fact that the existing piers are made of wood, and that the Harford was built in 1873 and has historical value, the use of like materials is appropriate here. Treated wood is used for the construction of piers because it is economical, is easy to install, and is durable. The wood is durable because it contains chemical preservatives that prevent fungal decay, and insect attack. However, the same chemicals used to protect the integrity of the wood piles may also leach into the water column and become potentially toxic to aquatic organisms.

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<sup>1</sup> *Guide for Minimizing the Effect of Preservative-treated Wood on Sensitive Environments*, Lebow and Tippie, prepared for United States Forest Service, February 2001.



Because of the potential adverse environmental impacts associated with the release of toxic substances from chemically treated pier pilings, the Commission has looked to alternatives in other projects as appropriate, including concrete piles and steel piles. Another piling option with which the Commission generally has less experience is the use of steel reinforced plastic piles. Recent studies done by the US Navy in San Diego evaluated plastic pier pilings based on a number of criteria, including: durability, strength, cost, and environmental integrity.<sup>2</sup> Plastic pier pilings are a relatively new product, so the long-term durability and maintenance requirements are less well known. In summary, the test results show that the service life of the plastic pier pilings is longer than untreated and ACZA treated wood pilings.<sup>3</sup> Cost comparisons for installing plastic pier pilings versus ACZA-treated timber pilings indicate that the initial purchase price was greater for plastic piles (approximately \$800 - \$1,150 more). However, when ongoing maintenance and repair costs were factored in, the costs to maintain plastic piles over time were less than traditional piles. In terms of environmental integrity, toxicity data presented by the manufacturers indicates that the use of plastic pier pilings does not appear to present harmful impacts to fish and wildlife.

That said, there have been some concerns about the use of plastic pilings in the marine environment, including due to the possible deterioration of the pilings and subsequent increase in marine debris. In this respect, the water quality effects from the use of recycled plastic composites have also been studied, and there appear to be some promising results.<sup>4</sup> The composites are made from used bottles collected at curbside for recycling. This material is comprised of approximately 80% polyolefin content (polyethylene and polypropylene), with the remaining percentages made of polyethylene terephthalate, polystyrene, polyvinyl chloride, and other plastics. In a leach test only minor amounts of copper, iron, and zinc leached from the plastic. None of the contaminants had a concentration significant enough to have any adverse effects on the marine environment. Additionally, in a study comparing the toxic effects of plastics to treated wood, the researchers concluded that *“in all these experiments with four different species of estuarine organisms, the recycled plastic proved to be far less toxic material than the treated wood.”*<sup>5</sup>

There does remain, however, the question of whether such plastic piles would eventually degrade and add plastic debris to the marine environment. Since plastic is an inorganic material, it does not biodegrade, but rather continually breaks down into ever-smaller pieces. The presence of plastics in the coastal and ocean environment is both widespread and harmful to human and marine life. An article, written by Jose G.B. Derraik, entitled “The pollution of the marine environment by plastic debris: a review,” reviews much of the literature published on the topic of deleterious effects of plastic debris on

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<sup>2</sup> *Plastic Pier Piling Evaluation Report*, prepared by Tetra Tech for Navy Region Southwest, November 1999.

<sup>3</sup> According to the manufacturers, the plastic pier pilings are warranted against degradation for a period of 10 years and may last as long as 40 years or more if not damaged by vessels. According to discussions with Port San Luis Harbor, under ideal conditions the life span of fender piles on Harford Pier is about 10 years. Of course, there are exceptions to this ten-year estimate (e.g., damaging incidents where fishing boats destroy fender pilings reducing the normal pile life span dramatically).

<sup>4</sup> ND-075-02. Negative Determination for the repair of existing wharves and upgrading of utilities services, Naval Base Ventura County, Port Hueneme Area.

<sup>5</sup> *Toxicity of Construction Materials in the Marine Environment*; Weis, Peddrick; Weis, Judith; Greenberg, Arthur; and Nosker, Thomas; Archives of Environmental Contamination and Toxicology; 1992.



the marine environment. The article states:

*The literature on marine debris leaves no doubt that plastics make-up most of the marine litter worldwide.*<sup>6</sup>

In support of this statement, the article includes a table that presents figures on the proportion of plastics among marine debris around the world. In most of the locations listed on the table, plastics represented more than 50 percent of the total marine debris found.

Existing studies clearly demonstrate that plastic debris creates problems for marine life. Plastic marine debris affects at least 267 species worldwide, including 86% of all sea turtle species, 44% of all sea bird species, and 43% of marine mammal species.<sup>7</sup> For example, plastics cause significant adverse impacts in seabirds, when birds mistakenly ingest the plastic debris. A study performed in 1988, concluded that seabirds consuming large amounts of plastics reduced their food consumption, which limited their ability to lay down fat deposits and in turn reduced fitness. In addition, ingesting plastics can block gastric enzyme secretion, diminish feeding stimulus, lower steroid hormone levels, delay ovulation, and cause reproductive failures.<sup>8</sup> Plastic debris that has settled on the seabed floor also harms the biological productivity of coastal waters. In Derriak's article, he states:

*The accumulations of such [plastic] debris can inhibit gas exchange between the overlying waters and the pore waters of the sediments, and the resulting hypoxia or anoxia in the benthos can interfere with the normal ecosystem functioning, and alter the make-up of life on the sea floor. Moreover, as for pelagic organisms, benthic biota is likewise subjected to entanglement and ingestion hazards.*<sup>9</sup>

The deterioration rate of such plastics is not well known. If such pilings were installed, they would be exposed to ultra violet radiation. The plastic contains stabilizers that are intended to protect it from degradation that may result from UV exposure. Notwithstanding the protection provided by the stabilizers, the potential does exist that the plastic would degrade over time. If the plastic piles were to become brittle, they may splinter upon impact and would introduce plastic debris into the coastal waters, and thus would adversely affect water quality resources.

Although the reinforced steel plastic piles present a potentially promising alternative, it is not clear at the current juncture that it is the least environmentally damaging feasible alternative. Really, more study is needed to help identify the best possible pile for the marine environment. Each alternative has demonstrated a range of costs and benefits. In this case, and recognizing the Port District's existing stockpiles and the fact that the best possible pile choice overall is not absolutely clear, the Commission here allows the use of ACZA treated piles. These piles, though, have a similar issue of leaching as is

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<sup>6</sup> Derraik, Jose. "The pollution of the marine environment by plastic debris: a review," *Marin Pollution Bulletin*, 44: 842-852, 2002. *Marine Debris - Sources, Impacts and Solutions*. Springer-Verlag, New York, 99-139, 1997.

<sup>7</sup> Laist, D. W. "Impacts of marine debris: entanglement of marine life in marine debris including a comprehensive list of species with entanglement and ingestion records," Coe, J.M., Rogers, D. B. (Eds.).

<sup>8</sup> Derraik, Jose. "The pollution of the marine environment by plastic debris: a review," *Marin Pollution Bulletin*, 44: 842-852, 2002.

<sup>9</sup> *Ibid.*



associated with standard creosote treated piles. To address this concern, the Commission has in the past required that such chemically treated piles be wrapped in a watertight plastic sleeve to minimize impacts to marine resources or be encased completely in plastics (a process of “dipping” the piles). In terms of wrapping, the plastic wrap has been applied prior to pile installation and entails nailing the plastic to the wood and capping the pile for a water resistant seal. The principal behind the use of plastic wrapping is to add an additional layer of protection to marine wood products; it not only protects the pilings from wear caused by the abrasion of boats, but also helps to prevent infestation by wood borers. The plastic wrapping is a vinyl material, approximately one tenth of an inch thick, that is nailed to the piling at the top, bottom, and along the longitudinal seam with non-corroding aluminum alloy nails. Polyurethane foam is installed along these seams to achieve as watertight a seal as possible. Typically, pilings are wrapped such that the plastic cover extends 5 feet below the sea floor surface, and either up to the top of the piling, or a minimum of 3 feet above the mean high tide line or storm wave height as applicable. To date, the Commission is unaware of any scientific investigations that have specifically analyzed the potential impacts associated with the use of plastic wrapped chemically treated pilings on marine resources and/or coastal water quality.<sup>10</sup>

In this case, the Commission finds that the proposed plastic wrapped ACZA piles are the best choice for Port San Luis Harbor. To ensure adequate marine resource protection, special conditions require the implementation of a periodic inspection and repair program. Where plastic wrapped pilings may come into contact with boats, more frequent inspections are required. These provisions, combined with the demonstrated durability of the plastic wrapping materials, should ensure that the wrapped piles are appropriately installed and maintained, in a manner that will minimize (and prevent as much as possible with the technology employed) the release of chemicals into the marine environment. It also is acknowledged that it is in the interest of the users to properly maintain the plastic wraps, as this will help to extend the life of the wooden piles. As previously indicated, other construction activities associated with the project also have the potential to adversely affect water quality. Therefore, special conditions have been included with this permit that will minimize to the greatest extent feasible the impact of construction operations on water quality and marine resources. Special Conditions 7 and 8 identify that the permittee is responsible for obtaining any necessary approvals from the Regional Water Quality Control Board and ACOE for all in-water work proposed under the operations and maintenance plan prior to the commencement of construction.

#### Conclusion

The subject project represents a comprehensive program for repair and maintenance activities necessary to maintain and improve facilities for recreational boating and commercial fishing. Because these activities have the potential to impact marine resources, special conditions are attached to his permit that

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<sup>10</sup> The technology used to manufacture plastic pile covers has advanced significantly since polyvinyl chloride (PVC) was first used the wrap timber piles in 1958. While PVC wraps proved to be somewhat effective against marine borer attack, they had durability problems, and could only be installed on existing in-place piles because they could not withstand pile driving. The first polyethylene pile covers were installed on 600 piles at the Santa Barbara pier in 1979, and as of 1994, showed no signs of distress. Another example of the successful use of polyethylene pile covers has been in the reconstruction of the Seal Beach pier, which occurred in 1984; surveys conducted in 1994 confirmed that both the covers and interior piling maintained excellent condition.



will protect the quality and biological productivity of coastal waters.

One of the most critical issues regarding the protection of marine resources and coastal water quality raised by this project is the proposed use of ACZA treated wood pilings. Scientific studies conducted to date have focused on unwrapped treated piles, and there are varying opinions regarding whether or not these studies accurately reflect the potential environmental impacts that may result from use in the marine environment. Recognizing the fact that the Port has existing stocks of ACZA treated wood piles, a phasing out condition has been included that limits the use of ACZA to that which is currently in stock at the Port at the time of Commission hearing on this permit (Special Condition 4). In any event, all pier pilings must be carefully monitored (Special Condition 4). If monitoring confirms that the use of wrapped ACZA piles is damaging marine resources, the use of such materials should be stopped, as more environmentally friendly products are developed. Finally, this permit provides for containment of construction debris, construction related BMP's, requirements for contractors regarding accidental spills, Corps of Engineers and Regional Water Quality Control Board permit coordination, and precautionary measures prohibiting the use of chemically treated wood products.

Thus, as conditioned, the Commission finds that the project is consistent with the Coastal Act marine resource protection policies.

## 2. Commercial Fishing and Boating

The following Coastal Act Sections apply:

***Section 30234 Commercial fishing and recreational boating facilities*** – *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.*

***Section 30234.5 Economic, commercial, and recreational importance of fishing***– *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Coastal Act Sections 30234 and 30234.5 require that the importance of fishing activities be recognized, and that facilities serving the commercial fishing recreational boating industries be protected, and where feasible upgraded. This permit allows the Port San Luis Harbor District to proceed with repair and maintenance activities that are essential to maintaining and operating the commercial fishing fleet as well as the recreational boats. Therefore, the Commission finds that this project implements, and is consistent with, Section 30234 and 30234.5.

## 3. Public Access and Recreation

Coastal Act Sections 30210 – 30224 protect and encourage public recreational access opportunities and facilities, including Section 30220 that protects coastal areas suited to accommodating water oriented



recreational activities. Section 30252 also requires that the location and amount of new development maintain and enhance public access to the coast. The proposed repair and maintenance activities will protect and enhance the water oriented access and recreation facilities provided by Port San Luis Harbor.

The proposed repair and maintenance activities do, however, have the potential to temporarily disrupt coastal access and recreation opportunities during operations. To minimize these impacts, Special Condition 2 requires a construction operations plan, to be reviewed and approved by the Executive Director prior to construction, which protects to the greatest degree feasible, facilities serving coastal access and recreation such as public parking and access routes during construction.

As conditioned, the project will maintain and enhance public access to the coast, and is therefore consistent with the Coastal Act regarding public access recreational access, including parking.

#### 4. 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 Port San Luis Harbor District, acting as the lead CEQA agency, determined that the project qualifies for a categorical exemption under CEQA.

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).



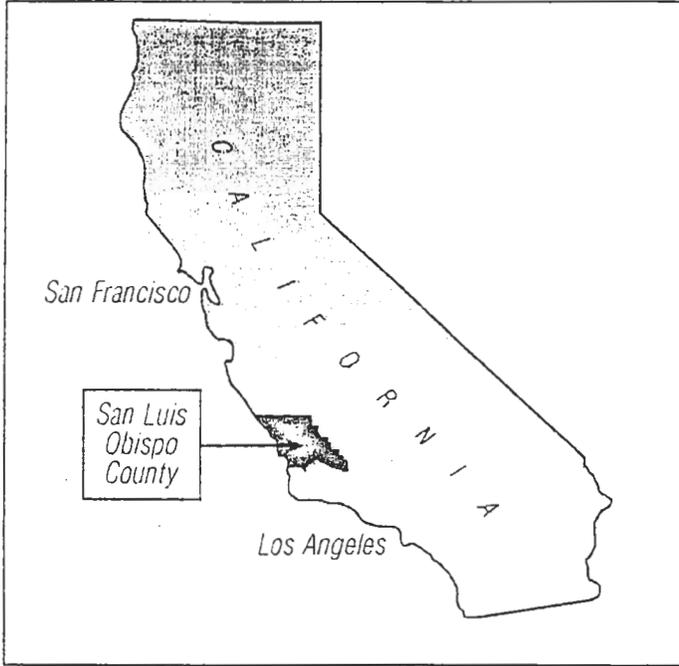
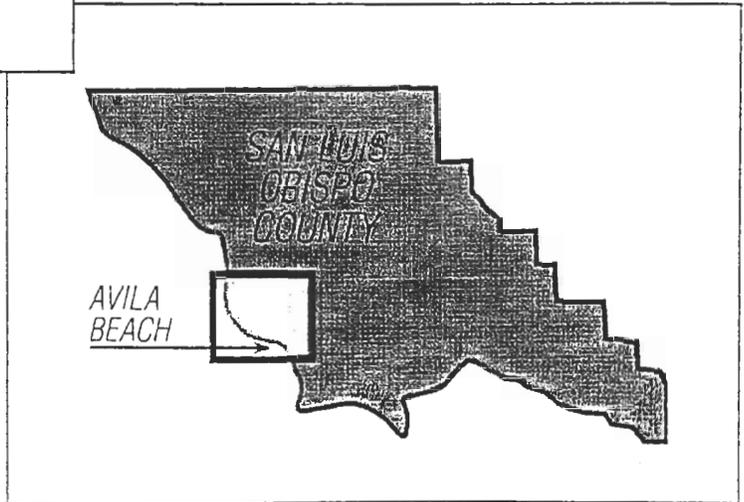


Figure 1 Regional Vicinity Map

Figure 2 Local Vicinity Map





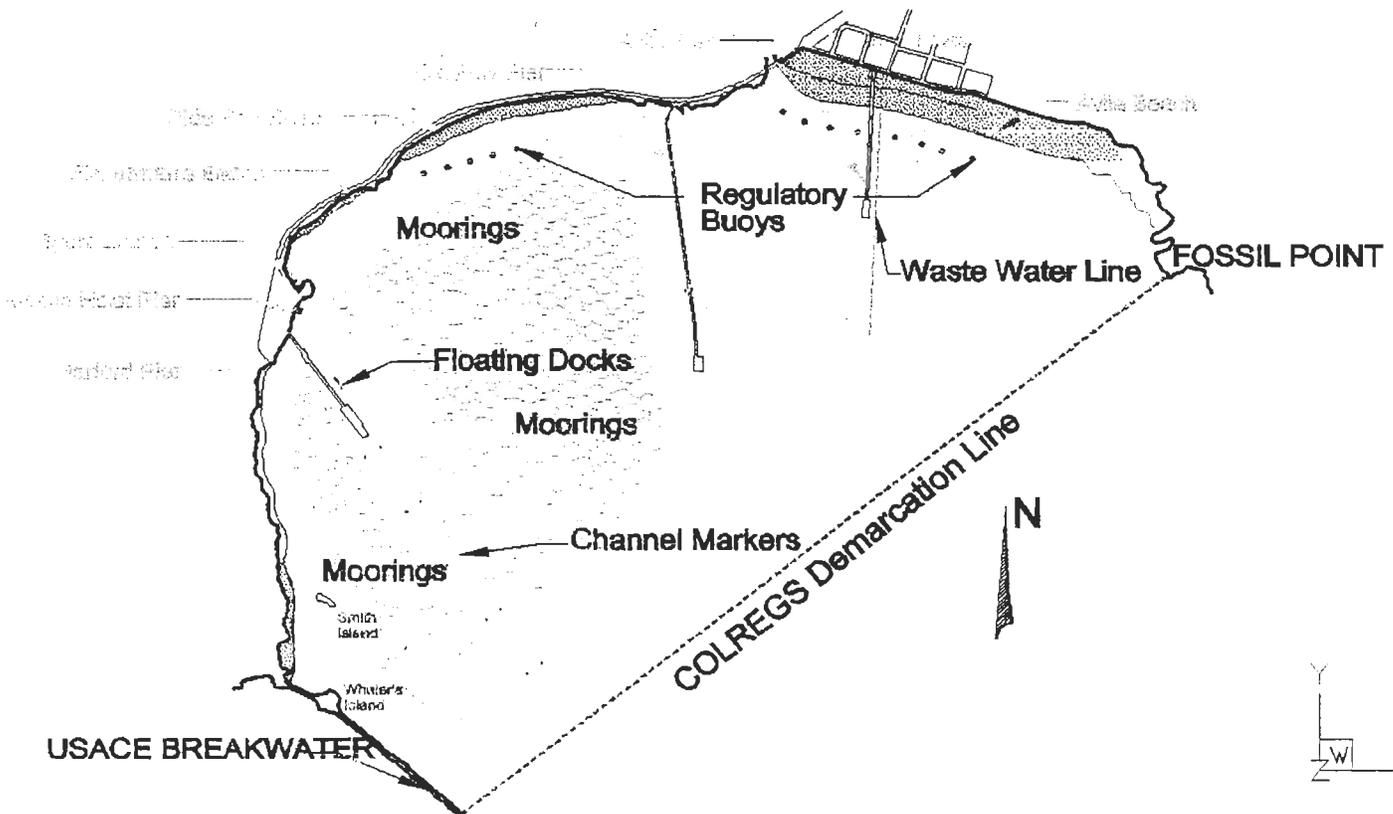
Vicinity Map  
No Scale

## San Luis Obispo Bay

The *COLREGS Demarcation Line* extends from the end of the USACE Breakwater to Fossil Point and represents the Harbor District's main interest in the San Luis Obispo Bay.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage or boating accidents:

- Channel Markers
- Regulatory Buoys
- Permanent and Seasonal Moorings
- Floating Docks
- Waste Water Line
- Seawalls, Revetments, and Riprap



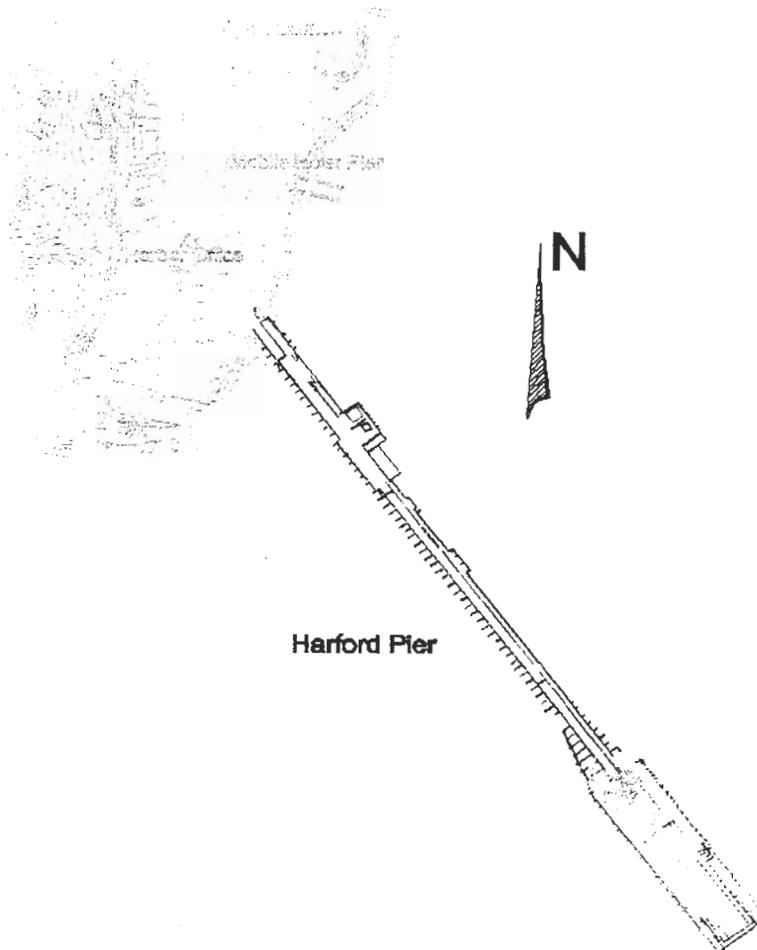
<b>Title:</b> San Luis Obispo Bay	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>Scale:</b> 1" = 2000'

## Harford Pier

This historic wooden pier, originally built in 1873, is approximately 1,456 feet long with an average width of 39 feet and approximately 120 feet wide at the terminus. Maintenance and repairs will not exceed the original pier footprint and structural repairs will be made with materials similar to the original construction. No alterations to the historic qualities will be made.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents or boating accidents:

- Decking, stringers, caps, rails and piles
- Ladders and stairs
- Floating and fixed landings
- Utilities and equipment
- Hoists
- Existing structures



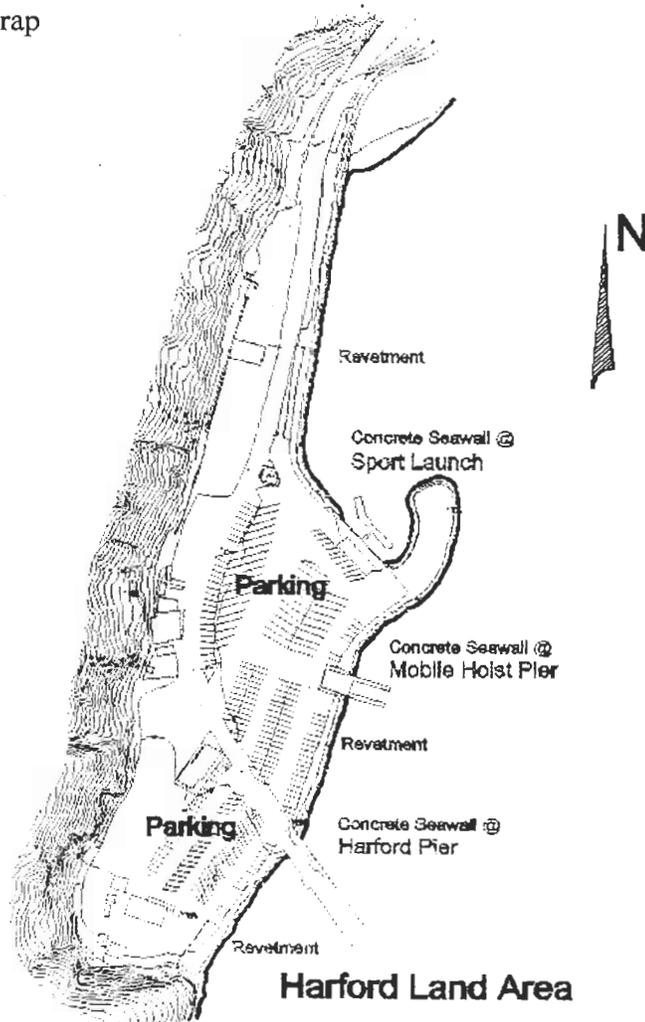
<b>Title:</b> Harford Pier	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>Scale:</b> 1" = 300'

## Harford Land Area

The land area is a combination of reinforced concrete or asphalt over an aggregate base adjacent to a seawall. A portion of the seawall is constructed of 1-4 ton rock, 25 lb. riprap, filter fabric, and class B concrete base. Maintenance and repairs will not exceed the existing land area footprint and repairs will be made with materials similar to the existing construction.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents or boating accidents:

- Parking Lot
- Seawall, Revetment, or Riprap
- Storm Drains



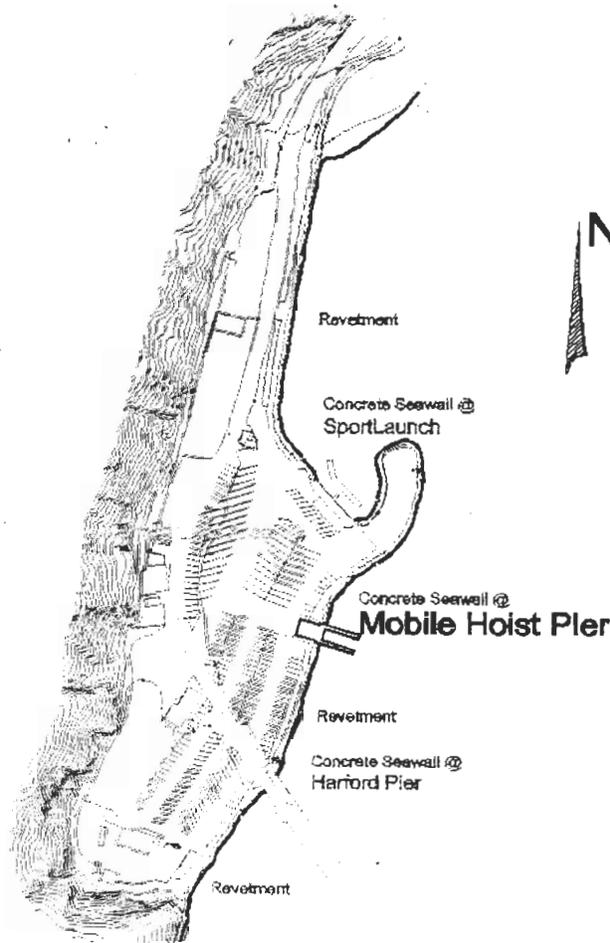
<b>Title:</b> Harford Land Area	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>MHW:</b> 4.68' <b>Scale:</b> 1" = 100'

## Mobile Hoist Pier

The mobile hoist pier is designed to haul and launch commercial and recreational vessels. The mobile hoist has a 60-ton capacity. The mobile hoist pier is constructed of steel reinforced concrete and is adjacent to a revetment and concrete seawall. The revetment is constructed of 1 - 4 ton rock, 25-lb. riprap, filter fabric and class B concrete base. Maintenance or repairs will not exceed the existing land area footprint and repairs will be made with materials similar to the existing construction.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents or boating accidents:

- Mobile Hoist Pier, Concrete Piles, Floating Dock
- Deck, Rails and Ladders
- Seawall, Revetment or Riprap



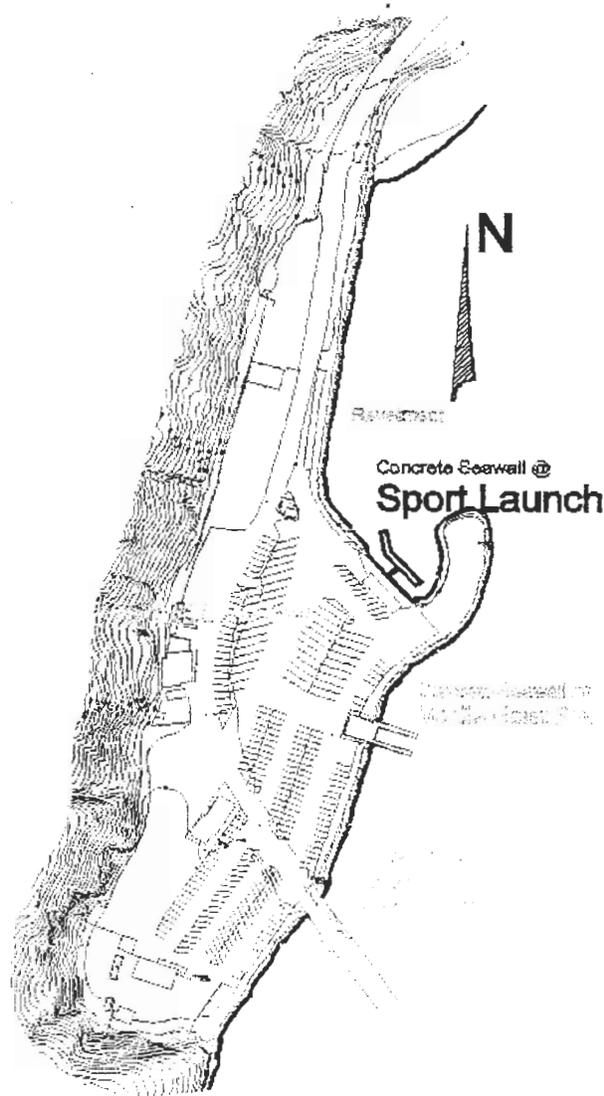
<b>Title:</b> Mobile Hoist Pier	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach	
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>MHW:</b> 4.68'	<b>Scale:</b> 1" = 100'

## Trailer Boat Launch

The trailer boat basin is designed to haul and launch recreational boats. The trailer boat hoist has a 15-ton capacity. The trailer boat basin is constructed of steel reinforced concrete and is adjacent to a revetment and concrete seawall. The revetment is constructed of 1 - 4 ton rock, 25-lb. riprap, filter fabric and class B concrete base. Maintenance or repairs will not exceed the existing footprint and repairs will be made with materials similar to the existing construction.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents, or boating accidents:

- Trailer Boat Hoist
- Docks and Gangway
- Seawall, Revetment or Riprap



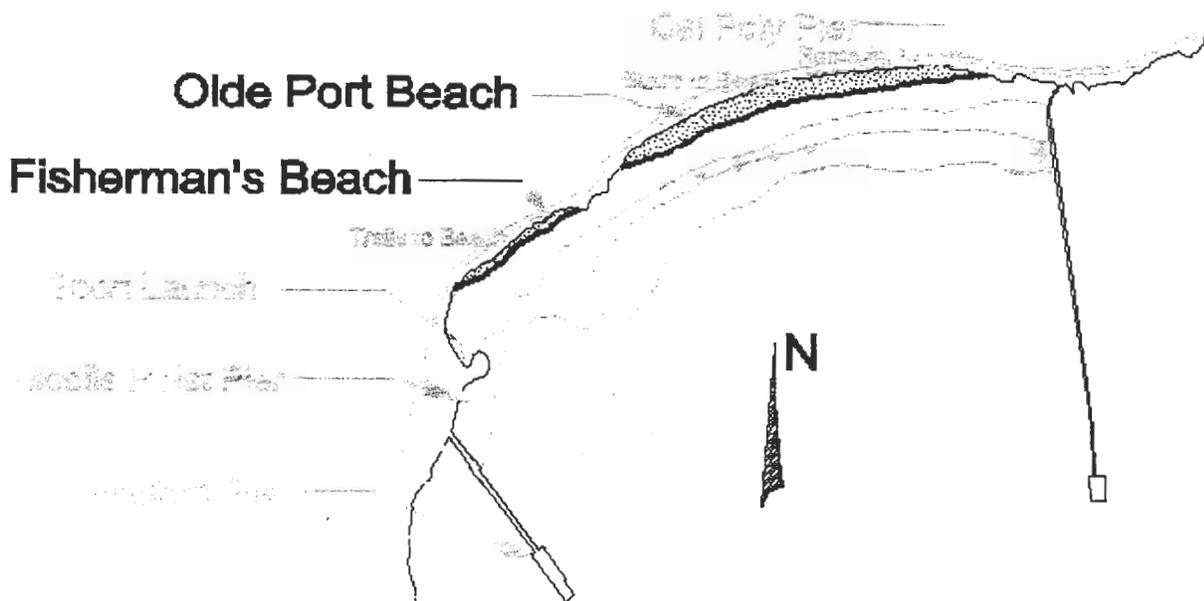
<b>Title:</b> Trailer Boat Launch	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach	
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>MHW:</b> 4.68'	<b>Scale:</b> 1" = 100'

## Fisherman / Olde Port Beach

Fisherman's Beach and Olde Port Beach are located between the Trailer Boat Launch and the Cal Poly Pier. Maintenance and repairs will not exceed the existing land area footprint and repairs will be made with materials similar to the existing construction.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents, or boating accidents:

- Stairs
- Trails
- Vehicle and Pedestrian Ramps
- Storm Drains
- Adjoining Seawall, Revetment or Riprap



<b>Title:</b> Fisherman / Olde Port Beach	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>MHW:</b> 4.68' <b>Scale:</b> 1" = 1500'

## Avila Beach

Avila Beach is located between Cal Poly Pier and Fossil Point. Maintenance and repairs will not exceed the existing footprint and repairs will be made with materials similar to the existing construction.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents or boating accidents:

- Stairs
- Recreational Equipment (Swings, Slide, Barbecues, Picnic Tables and Volleyball Posts)
- Lifeguard Headquarters / Towers
- Beach Sand Cleaning and Contouring
- Ramps
- Storm Drains
- Adjoining Seawall



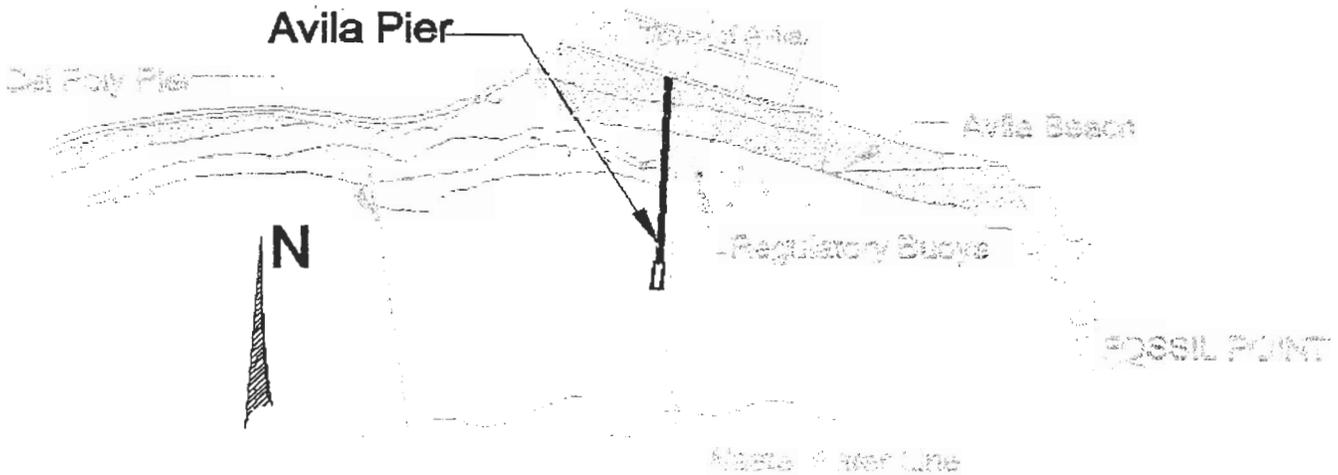
<b>Title:</b> Avila Beach	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach	
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>MHW:</b> 4.68'	<b>Scale:</b> 1" = 1400'

## Avila Pier

This wooden pier is 1,635 feet long with an average width of 20 feet and approximately 120 feet wide at the terminus. Maintenance and repairs will not exceed the original pier footprint and structural repairs will be made with materials similar to the original construction.

The following facilities may need routine maintenance from normal use or emergency repairs caused by storm damage, vehicle accidents or boating accidents:

- Decking, stringers, caps, rails and piles
- Ladders and stairs
- Fixed landings
- Utilities and equipment
- Hoists
- Existing Public Restrooms



<b>Title:</b> Avila Pier	<b>Water Body:</b> San Luis Obispo Bay	<b>City:</b> Avila Beach
<b>Activity:</b> Maintenance and Repair	<b>County:</b> San Luis Obispo	<b>MHW:</b> 4.68'   <b>Scale:</b> 1" = 1400'